FIRST YEAR FOCUSED SURVEY FOR DELHI SANDS FLOWER-LOVING FLY ON THE RIVERSIDE PUBLIC UTILITIES, RIVERSIDE TRANSMISSION RELIABILITY PROJECT, RIVERSIDE AND SAN BERNARDINO COUNTIES, CALIFORNIA

Prepared for:

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FIRST YEAR FOCUSED SURVEY FOR DELHI SANDS FLOWER-LOVING FLY ON THE SOUTHERN CALIFORNIA EDISON, RIVERSIDE TRANSMISSION RELIABILITY PROJECT, RIVERSIDE AND SAN BERNARDINO COUNTIES, CALIFORNIA

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The undersigned certify this report to be a complete and accurate account of the findings and conclusions of a first year, 2006 focused survey for Delhi Sands Giant Flower-loving Fly (Rhaphiomidas terminatus abdominalis) on the Southern California Edison, Riverside Transmission Reliability Project, Riverside and San Bernardino Counties, California.

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1. INTRODUCTION

Riverside Public Utilities is planning alternative routes for the Riverside Transmission Reliability Project in order to maintain and improve their quality of service. Alternative routes for the project extend generally from the Grand Terrace and Colton area, southwest along the Santa Ana River through Riverside, then west out through Ontario.

Osborne Biological Consulting was contracted by TRC Essex Environmental, Inc., on behalf of Riverside Public Utilities, in order to undertake presence / absence surveys for the Delhi Sands Flower-loving Fly (DSF, *Rhaphiomidas terminatus abdominalis*). The DSF was listed as an endangered species by the U.S. Fish and Wildlife Service (USFWS) on September 23, 1993 (USFWS 1993). Portions of the project centerline areas mapped as having Delhi series sands suggesting potential for DSF. Habitat assessments and evaluations conducted by TRC Essex in spring of 2006, indicated that a focused survey was needed on several portions of the project to meet the requirements of the U.S. Fish and Wildlife Service's (USFWS) Delhi Sands Flower-loving Fly survey protocol (USFWS 1996). This report presents the methods and findings of the habitat assessment and focused survey covering thirteen areas over Riverside and San Bernardino Counties.

2. PROJECT DESCRIPTION

As described above, RPU is investigating alternative routes for the Riverside Transmission Reliability Project. Thirteen areas along the alternative project centerlines were initially identified as being subject to some habitat assessment or survey for the DSF. After intense habitat assessments by Osborne, survey areas were refined, with eleven areas receiving full DSF survey efforts.

Areas surveyed for this project may be found on the San Bernardino South, Fontana, Riverside West, Corona North, and Guasti, USGS 7.5 minute series Quadrangles. Figures 1 through 5 (section 11) present maps depicting the survey areas at 50% scale and figures 6 through 11 present these at a 200% scale. Additional figures 12 through 15 present these surveys on an aerial overlay showing alternative routes for the RPU Riverside Transmission Reliability Project.

3. NATURAL HISTORY OF THE DELHI SANDS FLOWER-LOVING FLY

Delhi Sands Flower-loving fly, belongs to a genus of flies (*Rhaphiomidas*) commonly known as giant flower loving flies. There are more than 30 species of these flies, distributed across the southwestern United States and northern Mexico. These flies are *huge* by the standards set by most flies – with size among the species ranging from ca. 1.5 centimeters up to 3, and even 4 centimeters, usually gray, tan, rust or yellow in color. All species of *Rhaphiomidas* are associated with rather arid, sandy habitats, with most species living on dune systems of inland desert valleys, rivers, deltas, and beach strands. A few species are found in sandy washes, alluvial benches and remnant glacial moraines. Many species of

these flies often hover before flowers in the manner of hummingbirds, using a long, thin, tubular proboscis (mouth-part), with which the flies probe for nectar – hence the name "giant flower-loving flies". Smaller flies of the family Apioceridae, once considered very closely related to *Rhaphiomidas* were traditionally called "flower-loving flies".

The DSF which is only known to occur in association with Delhi sand deposits, presumably occupied the once extensive dune system of the upper Santa Ana River Valley, including portions of what is now the City of Colton, west through portions of the City of Ontario, and south to the Santa Ana River. Today, DSF exists on only a few disjunct sites (USFWS 1997) within a radius of about eight miles in southwestern San Bernardino and northwestern Riverside Counties (Colton, Rialto, Fontana, and Ontario). More than 95 percent of known DSF habitat was considered eliminated by development, agriculture and other land management practices by 1993 (Smith 1993, USFWS 1996 *in* Kingsley 1996), however, this proportion is now nearer 98 to 99% due to these ongoing processes. Many of the last remaining fragments of DSF habitat are currently under pressure by land management efforts such as heavy disking, irrigation, manure dumping, and gravel dumping. There is presently an estimated 1,200 acres of habitat that can support this species (USFWS 1997), however, this estimate likely includes lands needing extensive habitat restoration.

Adult DSF flight period is typically August and September, when individual adults emerge, reproduce and die. The adult life span of an individual DSF lasts for a few days and adults do not live beyond the flight period (Kiyani 1995). DSF, like other *Rhaphiomidas* species, appears to have an annual life cycle (because of the annual flight). However, it is widely believed that the underground larval/pupal stage may persist for additional years, depending upon various environmental factors such as annual rainfall, food availability and weather conditions during the flight season (many desert *Rhaphiomidas* species do not appear after a drought year and often, substantial flights occur only sporadically over the years). It is known that DSF larvae develop underground, however the specific biology (larval biology, habits and food requirements) are not yet known for DSF or any other *Rhaphiomidas* species. Known life histories of all related fly families and genera involve parasitism or predation on other soil dwelling arthropods and it is there for considered highly likely that *Rhaphiomidas* development is dependent on some other endemic insect species in the community.

Adult DSF are highly mobile, agile fliers. Male DSF are frequently seen flying low through habitat, using apparently random, circuitous paths around and between shrubs in search of females. Such "cruising" behavior often covers areas on the scale of 1000 square meters in the time span of a minute. Alternatively, male DSF are often seen flying about an open patch of ground (ca 100 square meters) such as along a dirt path or dune blow-out area. Here, males may repetitively land and rest on one or another object (such as small dried plants) in the area, and such rests are interrupted by periods of patrolling flight (apparently territorial) about the spot. When alarmed, these insects tend to fly rapidly in more or less a straight line – often covering distances of 100 meters in less than 6 seconds. Adult DSF are known to nectar at flowers of California buckwheat (*Eriogonum fasciculatum*) and California croton (*Croton californicus*).

3.1 DSF Habitat Characteristics

DSF is typically found in areas of unconsolidated sandy soils (Delhi series) supporting an open community of native and exotic plant species. Dominant plants are typically California buckwheat, California croton, telegraph weed (Heterotheca grandiflora), and deerweed (Lotus scoparius) but many exotic species often dominate on DSF habitat as well. DSF have been found in habitats that do not support these dominant plant species, and plant species composition may not be directly relevant to larval development (due to likely predatory or parasitic habit of DSF larvae). Adult DSF are known to nectar at flowers of California buckwheat and California croton. Many other plant species are common, including Thurber's eriogonum (Eriogonum thurberi), Autumn vinegar weed (Lessingia glandulifera), and sapphire eriastrum (Eriastrum sapphirinum). Non-native plant species also occur in DSF habitat (and incidentally, virtually everywhere). DSF habitat also supports other associated insects such as flies and wasps considered as indicator species – Apiocera convergens, Apiocera chrysolasia, Ligyra gozophylax, Campsomeris tolteca, Trielis alcione, and Nemomydas pantherinus. Over 350 insect species have been found on one DSF site, and DSF habitat is typically marked by high abundance and diversity of predatory and parasitic insect groups including many highly specialized families of flies, wasps, bees, beetles, and antlions. The Delhi Sands community is one of California's unique natural communities containing an array of native plants and animals, some of which are found nowhere else. One plant species, Pringle's monardella, (Monardella pringlei) is already presumed extinct, as no living individuals have been observed in many years. Several species of insects and some vertebrates, which inhabit the Delhi Sands dunes system, are as endangered as the DSF, but no one has yet petitioned to have them officially declared Endangered. These include the convergent flower-loving fly Apiocera convergens, a newly discovered species of Jerusalem cricket, (Stenopelmatus sp.), a new species of camel cricket (Ceuthophilus sp.) and an endemic subspecies of butterfly *Apodemia mormo nigrescens* (Emmel and Emmel 1998). The other apiocerid fly (Apiocera chrysolasia), although known from approximately six general localities, is only common within the Delhi sands.

3.2 DSF Survey Guidelines

Interim General Survey Guidelines for the DSF have been suggested by the USFWS (1996). By following these guidelines, DSF presence or absence survey results may be deemed acceptable to the USFWS (rejection of survey results is likely to result where the guidelines are not followed). The guidelines indicate that focused DSF surveys should be conducted wherever Delhi sands are present within the presumed range of DSF, twice weekly (two days per week) during the single annual flight period (usually from August 1 to September 20). Recent early season DSF discoveries led the USFWS to recommend a survey season from July 15 to September 20 for 2003 and a survey season from July 1 to September 20 from the year 2004. Surveys must be conducted for two flight periods (two years). Furthermore, weather conditions must be suitable for DSF activity at the times survey work is pursued. The DSF is generally active when daytime temperatures exceed

80 degrees Fahrenheit (°F), but may fly with slightly cooler temperatures in bright sunlight.

4. METHODOLOGY

4.1 Habitat Assessment

Initially, thirteen sites of interest were identified by Roger Overstreet of TRC Essex, based on the intersection of RPU project centerlines with areas mapped as having Delhi sand soils. These locations were assigned numbers in order to facilitate the logistics of survey scheduling. Upon additional investigation by Osborne, survey areas were refined by addition of previously unrecognized DSF habitat, by subtraction of unsuitable or developed habitats, and elimination of site number 7 due to lack of DSF habitat. Site number 13 was also later dropped after it was learned that the RPU project in that location would only impact previously developed (paved) areas. Some survey areas were further subdivided for similar reasons. Area number 1 for example was subdivided with area 1a in order to accommodate a restricted schedule of access on the Agua Mansa Cemetery. These numeric site identifiers appear on the maps provided in figures one through eleven, appear in the field notes, and are used generally for this reporting of survey results.

Habitat suitability for DSF was evaluated using indicators of potential DSF habitat noted during the field visits, including: presence and abundance of loose, unconsolidated Delhi sands with low organic contamination; and, degree of habitat disturbance indicated by plant species composition and disposition of soil surface, presence and abundance of native sand associated plants such as *Croton californicus*, *Heterotheca grandiflora*, *Eriogonum thurberi* and *Eriogonum fasciculatum*. These plants are actually more an indication of relative disturbance regimen – conditions with lesser disturbance being of higher quality for DSF. Additional DSF habitat indicators considered were presence and abundance of Delhi sands associated insects such as *Apiocera convergens*, *Apiocera chrysolasia* and (to a lesser extent) *Nemomydas pantherinus*. Potential DSF habitat was further evaluated on the basis of overall insect diversity and abundance, particularly with respect to sand associated predators and parasitoids.

In the course of previous work, Osborne and Ballmer (Osborne et al. 2003, Osborne 2003) have developed a means of rating habitat on sites for potential to support DSF, on a scale of 1 to 5, with 5 being the best quality and most suitable habitat based on the following scheme:

- 1. Developed areas, non-Delhi sands soils with high clay, silt, and/or gravel content. Delhi sands extensively and deeply covered by dumping of exotic soils, rubble, trash or organic debris. *Unsuitable*.
- 2. Delhi sands are present but the soil characteristics include a predominance of exotic soils such as alluvial materials, or predominance of other foreign

contamination. Severe and frequent disturbance (such as a maintenance yard or high use roadbed). *Very Low Quality*.

- 3. Moderately contaminated Delhi sands. Delhi sands with moderate to high disturbance (such as annual disking). Sufficient Delhi Sands are present to prevent soil compaction (related to contamination by foreign soils). Some sandy soils exposed on the surface due to fossorial animal activity. *Low Quality*.
- 4. Abundant clean Delhi Sands with little or no foreign soils (such as alluvial material) present. Moderate abundance of exposed sands on the soil surface. Low vegetative cover. Evidence of moderate degree of fossorial animal activity by vertebrates and invertebrates. May represent high quality habitat with mild or superficial disturbance. *Moderate Quality*
- 5. Sand dune habitat with clean Delhi Sands. High abundance of exposed sands on the soil surface. Low vegetative cover. Evidence (soil surface often gives under foot) of high degree of fossorial animal activity by vertebrates and invertebrates. Sand associated plant and arthropod species may be abundant. *High Quality*

It should be noted that habitat qualities often vary spatially within a site so that conditions on a site fall within a range of qualities. Further, overall habitat quality is affected by the overall habitat area on a site, such that very small areas diminish the overall habitat value of a site. Use of this habitat rating system is somewhat subjective and best undertaken by a biologist who has extensive experience with *Rhaphiomidas* species. While investigating the various survey areas on this project, I subjected each site to an analysis of this kind so as to give a general estimate of overall DSF habitat conditions through the project (see Table 12, results section).

4.2 Focused Surveys

The surveyed areas were visited from July 1, to September 20, 2006, following the USFWS Interim General Survey Guidelines. We surveyed the subject sites at least twice a week, generally between the hours of 1000 and 1400 (Tables 1 through 11). The survey protocol, as set forth in the Interim General Guidelines for the Delhi Sands flower-loving fly survey, is designed to maximize the validity of a presence/absence determination. Table 1 below provides a list of the biologists that conducted surveys and their USFWS permit.

The survey areas included any suitable DSF habitat within 300 feet of the project centerline. However, habitats occurring on the opposite side of any substantial paved roadway were not included in the survey as being outside the scope of potential biological impacts from the project.

Table 1: Focused Survey Biologists

Biologist	U. S. Fish and Wildlife Service Permit Number
Kendall H. Osborne	TE-837760-5
Rick Rogers	Under Kendall Osborne's permit
Matthew Van Dam	Under Kendall Osborne's permit
Alex Van Dam	Under Kendall Osborne's permit
Brian M. Drake	TE-006328
Ellen K. Shafhouser	TE-084-254-0
Mike D. Wilcox	TE-836491-4
Nathan T. Moorhatch	TE-029414-1

The project was artificially divided into 13 areas to facilitate scheduling and these areas were designated as shown in Table 2.

Table 2: Survey areas, location, approximate acreages and relevant

commentary

Area	Location	Acreage	Comments
Area 1		15.94	Divided to include Area 1a - Agua
			Manza Cemetery with limited access
			separates this from area 1
Area 2		15.79	Survey ends mid season on northern
			portion after we learn of HCP
Area 3		0.496	
Area 4		3.07	
Area 5		3.79	Southern portion of this area excluded
			due to elimination of habitat and denied
			access
Area 6		13.90	Northern portion area 6N, includes
			fenced area. Southern portion area 6S
Area 7		24.77	Dense, wet, Riparian woodland Not
			DSF habitat, Not surveyed
Area 8		11.62	
Area 9		45.68	Small portions of this are excluded as
			unsuitable for DSF. Area 9a is small
			eastern disjunct part.
Area 10		63.84	10W (western half) 10E (eastern half)
			large area divided for scheduling
Area 11		2.73	
Area 12		4.84	

Osborne photographed the survey sites from several perspectives to document existing conditions. Representative photographs of sites are found in Appendix C. Notes were taken on vegetative cover and plant species composition, abundance and diversity and species composition of insects and other animals, soil types, degree and nature of

disturbance, surface cover, organic content, compaction, current land management practices, existing development, conditions of surrounding vicinity, and proximity of other DSF populations.

5. Existing Environments and Communities

5.1 Adjacent lands

In general, DSF habitats are more or less surrounded by developed lands. With respect to this study, Survey Areas 1, 2, 3, 4, 5, 8, 9, and 10 occurred in the context of surrounding undeveloped lands similar to the survey areas themselves. Survey Areas 6, 11, 12, and 13 occurred as islands in the context of developed commercial and or residential areas. Areas 7 (not surveyed) and 8 occurred within the Santa Ana River bottom or immediately adjacent areas. Undeveloped lands supporting DSF are known only in the immediate vicinity of areas 1, 2, and 3.

5.2 Topography

Survey areas 1, 5, and 6 occur over Delhi sands deposits which cap a terrace above the Santa Ana River flood plain, thus have generally flat or rolling topography with a steep slope against the river plain. Areas 2 and 3 are generally rolling or flat, but associated with sand formations similar to those on the terrace areas. Areas 4 and northern portions of 6 may be derived both from terrace and secondary blow sands against hillsides. Areas 7 and 8 are generally flat, may have alluvially derived elements mixed (in the case of Area 8) with blown sands against slopes above the Santa Ana River. Areas 9, 10, 11, 12, and 13 all occur on flatlands (often agricultural) in the southern Ontario area.

5.3 Soils

Woodruff (1980) and Knecht (1971) indicated soils over all survey areas to consist of Delhi fine sands and field observations confirm Delhi sands throughout on these sites to varying degrees.

5.4 Vegetation

The survey areas are generally characterized as disturbed due to histories of disking, mowing, farming, and other activities. These areas generally support low vegetative diversity of an early successional type – mostly exotic grasses. Portions of some survey areas (Areas 1, 2, 4, 5, and 6) have remained relatively undisturbed and support either coastal sage scrub, or vegetation communities of low to intermediate disturbance with such species as *Heterotheca grandiflora, Croton californica*, and *Encelia farinosa*. Appendix A provides a list of plant species encountered on the survey areas.

5.5 Insect Communities

During site visits for 2006, at least 160 insect species (counting only large and conspicuous insects) were either casually observed or collected across all of the survey areas. A list of most insect species observed during the course of year 2006 focused survey work is presented in the appendix (Appendix A). The insect communities encountered on the survey areas 1, 2 (northern portions), 4, 5, and 6 (northern portions), had high abundance and diversity reflecting relatively more mature ecological communities associated with Delhi sands, including Mydidae (and DSF – Areas 1 and 2), Asilidae, Apioceridae, Sphecidae, Scoliidae, Mutilidae, Pompillidae, and Mymerliontidae. Survey Areas 3, 9, 10, 11, and 12, generally supported low arthropod diversity, due to extremely disturbed conditions. Survey Area 8 had unusually high arthropod diversity, and many species not previously seen on DSF surveys, due to close association with extensive riparian habitats.

6. RESULTS

6.1 Habitat Assessment

As mentioned above, habitat as defined by presence of Delhi sands was used to identify survey areas subject to potential DSF occurrence. Through the project areas generally, habitat conditions for DSF ranged from High quality to Very Low Quality (with Unsuitable areas not being surveyed). In general, the highest quality DSF habitat conditions were found on the far eastern portions of the project as with Areas 1 through 6. The lowest quality habitats occurred through Areas 7 (not surveyed) and 8 – due to marginal conditions associated with the River bottom and abundant riparian vegetation – and through Areas 10 (disturbed agricultural), and Area 11 (disturbed, small site, and surrounded by development). Areas 9 and 12 were found to be of intermediate habitat quality due either to more extensive lands not currently in agriculture, or presence of indicator plants with open sands.

The table below provides Osborne's rating habitats on sites for potential to support DSF, along with brief explanation of conditions driving the rating.

Table 3: Rating of DSF habitat quality on Survey areas

Survey Area	Habitat for DSF	Explanation
1	Moderate to High Quality	Some disturbed areas such as irrigated portion of
		cemetery, but extensive undisturbed Delhi sands
		with intact ecological communities
2	Moderate to High Quality	Some disturbed areas heavily disked, but northern
		portions with extensive undisturbed Delhi sands
		and intact ecological communities
3	Low Quality	Heavily disked, admixed with other soils
4	Moderate to High Quality	Low sand abundance, often compacted partially
		developed to railway, but slopes with long

		undisturbed and intact ecological communities
5	High Quality	Northern portions with relatively undisturbed Delhi
		sands and intact ecological communities
6	Low to High Quality	Variable from disturbed, graded, disked,
		landscaped, ranging up to slopes with long
		undisturbed and intact ecological communities
7	Unsuitable	Deep, dense, wet, riparian woodland on alluvial
		sands – River bottom.
8	Unsuitable to Moderate	High disturbance due both to paved roadway and
		fluvial processes (river). However, some areas
		with blow sands and open sandy areas with
		indicator plant species. Much riparian influence.
9	Very Low to Moderate	Mainly disturbed by a history of disking, some
		portions not disked so often.
10	Very Low to Low	Intense active agriculture, dairies, where currently
		fallow – overgrown with exotic shrubs such as
		Kochia. Sands seem overly fine and semi alkaline.
11	Very Low to Moderate	Very small, disturbed and contaminated site west of
		railroad, relatively undisturbed clean sands to east
		of rail, but site is surrounded by large developed
		areas
12	Very Low to Moderate	Very long narrow strip bounded by road and flood
		channel. Much disturbance, equestrian and
		vehicular use, but many areas with open sands and
		indicator vegetation.

6.2 Focused Surveys

Delhi Sands Flower-loving Fly found on Survey Areas 1 and 2.

A total of two female and three male Delhi Sands Flower-Loving Flies were observed on Survey Areas 1 and 2 during the course of this year 2006 field season. These DSF locations are shown in figure 16, Appendix B. DSF was not observed on any other survey area during the course of this field season.

On August 11, 2006, a male DSF was followed by Ken Osborne for several minutes on the western margin of Area 1, just outside (west of) the northwestern Cemetery fence. This male was observed to locate a female DSF and mate. The initial observation of a cruising male DSF was made at 1150 hours. This male was seen at a distance of approximately 20 meters (just outside of our survey area). Osborne followed this cruising male around while it made random flights through vegetation in a searching mode. During approximately 5 minutes, the DSF traveled through an area of some 40 meters by 40 meters (all just outside of the survey area). Finally, the male landed on the top of a dry *Heterotheca* stalk and it was observed to have found a teneral female (1154)

am), quickly manipulated its abdomen to begin copulation. Copulation lasted approximately 3 minutes. The unmolested pair broke up, the male flying two to three meters to the north and the female flying approximately 10 meters to the southeast (ending up approximately 8 meters from the northern fence line of the Agua Mansa Cemetery. The observations lasted to approximately noon. Photographs were taken throughout the observations. The coordinates of this observation are approximately 34° 02' 34.2" N latitude, 117° 21' 49.8" W longitude. This sighting is in close proximity to other known sightings (a little farther west) from the previous year by Rick Rogers (pers. comm.).

On August 14, 2006, between approximately 1115 and 1130 hours, Alex Van Dam made observations of approximately two male and one female DSF on a small remaining strip of undisked habitat on the southern portion of Area 2. These DSF were too active to be photographed. The coordinates of these observations are approximately 34° 01' 42" N latitude and 117° 22' 31" W longitude.

6.3 Other Species of Special Interest

One "Special Animal" as defined California Department of Fish and Game Natural Diversity DataBase (CNDDB 2005) was incidentally detected within some of the survey areas during the course of field surveys. Burrowing Owl (*Athene cunicularia*) is listed as a "California Special Concern Species" (CSC) and Federal "Bird of Conservation Concern" species (BCC). The Burrowing Owl has been proposed as a candidate for listing as endangered under the State Endangered Species Act.

Burrowing Owl was observed on western portions of survey Area 9 (around a catch basin and associated spillways), and on the eastern, disjunct part of Area 9 (referenced in notes as Area 9a) on piles of introduced soils and waste materials, and at various locations along the channel sides adjacent to survey Area 12.

7.0 DISCUSSION

The best habitat conditions for DSF were observed on the northern portion of survey Area 2. When we were informed that a Habitat Conservation Plan (HCP) for this area has been approved by the USFWS, and after receiving information that RPU project activities would be covered by this HCP, we discontinued the survey on this northern portion of Area 2 around the end of July. Although DSF was not observed on the northern portion of Area 2 during the course of our survey, we believe that this high quality habitat is very likely occupied by a population of DSF.

A further discussion and analysis considering the implications of DSF findings on this survey will be undertaken upon completion of the full survey (after the second protocol survey season).

8.0 REFERENCES

- Cazier, M.A. 1985. *A revision of the North American flies belonging to the genus*<u>Rhaphiomidas</u> (Diptera: Apioceridae). Bulletin of the American Museum of Natural History 182(2):181-263.
- Hickman, J.C. (ed.). 1993. *The Jepson manual: Higher plants of California*. University of California Press. Berkeley, California.
- Kingsley, Kenneth J. 1996. *Behavior of the Delhi Sands Flower-Loving Fly (Diptera: Mydidae), a Little Known Endangered Species*. Ann. Entomol. Soc. Am. 89(6): 883-891.
- Kiyani Environmental Consultants. 1995. *Principal Investigator's Annual Report, Delhi Sands Flower-loving fly (Rhaphiomidas terminatus abdominalis) Studies at Colton,* California. Prepared for San Bernardino County and U.S. Fish and Wildlife Service, Carlsbad, CA. 25+ pp.
- Knecht, A.A. 1971. *Soil survey of western Riverside area, California*. U.S. Department of Agriculture, Soil Conservation Service.
- Munz, P.A. 1974. *A flora of southern California*. University of California Press, Berkeley, California.
- Osborne, K. H. 2003. *Delhi Sands Flower-loving fly Habitat Assessment for the Hermosa Cemetery, Colton.* Prepared for Inland Memorial Cremations and Burial. Submitted to the U.S. Fish and Wildlife Service, CA.
- Osborne, K. H., G. R. Ballmer, and T. McGill. 2003. *DSF Habitat Assessment for the Proposed Mary Vagle Conservation Area*. Prepared for the City of Fontana. Submitted to the U.S. Fish and Wildlife Service, CA.
- Rogers, R. and M. Mattoni. 1993. *Observations on the natural history and conservation biology of the giant flower-loving flies*, *Rhaphiomidas* (*Diptera:Apioceridae*). Dipterologial Research 4(1-2):21-34.
- U.S. Fish and Wildlife Service. 1993. Endangered and Threatened Wildlife and Plants: Determination of Endangered Status for the Delhi Sands Flower-loving Fly. U.S. Department of Interior. Federal Register, 58 (183): 49881-49887.
- U.S. Fish and Wildlife Service. 1996. *Delhi Sands Flower-loving Fly Draft Presence/Absence Survey Guidelines*. December 30.
- U.S. Fish and Wildlife Service. 1997. *Delhi sands Flower-loving Fly (<u>Rhaphiomidas</u> <u>terminatus abdominalis</u>) <i>Recovery Plan*. U.S. Fish and Wildlife Service, Portland, OR. 51 pp.

Woodruff, G. A. 1980. Soil survey of San Bernardino County, southwestern part, California. U.S. Department of Agriculture, Soil Conservation Service

APPENDIX

Appendix A: Data Tables

Table 1. Area 1: Dates, personnel, times and conditions for DSF survey work

WOIK	D' 1 ' :	T.T.	W 4 C 12.2
Date	Biologists	Hours	Weather Conditions
July 1, 2006	K. Osborne	1016-1050	clear, calm, 97-105°F for day
July 2, 2006	M. Van Dam	1100-1158	clear, winds 0-2 mph, 87- 101°F
July 4, 2006	M. Van Dam	1303-1400	clear, calm, 94°F
July 6, 2006	M. Van Dam	1210-1246	clear, winds 0-5 mph, 93°F
July 9, 2006	A. Van Dam	1320-1410	clear, wind 2-3 mph, 92-104°F for day
July 10, 2006	A. Van Dam	1000-1100	clear, wind 1-6, 94-104°F for day
July 12, 2006	A. Van Dam	1024-1059	clear, wind 2-4 mph, 97-105°F
July 14, 2006	A. Van Dam	1058-1140	15% clouds, calm, 90-100°F
July 15, 2006	A. Van Dam	1305-1400	clear, wind 2-6, 95-108°F
July 17, 2006	A. Van Dam	1000-1100	20-80% clouds, wind 1-8 mph, 91-104°F
July 19, 2006	A. Van Dam	1045-1120	clear, calm, 95°F
July 21, 2006	A. Van Dam	1054-1130	clear, winds 0-5 mph, 92°F
July 22, 2006	A. Van Dam	1000-1100	0-10% clouds, calm, 100-102°F
July 23, 2006	A. Van Dam	1045-1121	clouds 50-100%, wind 2-8 mph, 92-97°F
July 24, 2006	A. Van Dam	1000-1100	0-30% clouds, calm, 100°F
July 27, 2006	K. Osborne	1030-1130	clear, calm, 90°F
	A. Van Dam		
July 29, 2006	and R. Rogers	1126-1156	clouds 40-90%, 85-90°F, winds 0-12 mph
July 29, 2006	K. Osborne	1252-1344	25% clouds, winds 0-5 mph, 87°F
	A. Van Dam		50% clouds, wind 0-2 mph, 85-90 °F for
August 1, 2006	and R. Rogers	1220-1253	day
August 3, 2006	K. Osborne	1338-1420	clear, calm, 82-85°F
August 5, 2006	A. Van Dam	1157-1257	clear, calm, 87-95°F
August 7, 2006	A. Van Dam	1335-1400	clear, wind 0-2, 90-91°F
	A. Van Dam		
August 9, 2006	and R. Rogers	1300-1320	clear, calm, 89-101°F
August 11, 2006	K. Osborne	1115-1210	clear, calm, 92-93°F
August 12, 2006	A. Van Dam	1000-1100	clear, wind 0-2 mph, 81-100°F
August 13, 2006	A. Van Dam	1130-1206	clear, calm, 87°F
August 14, 2006	A. Van Dam	1000-1100	clear, wind 0-2 mph, 87-95°F
August 17, 2006	K. Osborne	1115-1155	clear, calm, 85°F
August 19, 2006	A. Van Dam	1000-1100	clear, calm, 89-95°F for day
August 20, 2006	A. Van Dam	1047-1128	clear, calm, 85-103°F for day
August 21, 2006	A. Van Dam	1000-1100	clear, calm, 86-100°F for day
August 23, 2006	A. Van Dam	1000-1036	clear, wind 0-2, 95-100°F for day
August 26, 2006	A. Van Dam	1250-1350	clear, wind 0-2 mph, 87-98°F for day
August 27, 2006	A. Van Dam	1000-1036	clear, calm, 90-103°F for day

August 28, 2006	A. Van Dam	1230-1330	clear, calm, 98-100°F
August 31, 2006	K. Osborne	1100-1139	clear, calm, 94°F
September 2, 2006	A. Van Dam	1045-1145	clear, wind 0-2 mph, 100-104°F for day
September 3, 2006	A. Van Dam	1050-1126	clear, calm, 99-107°F for day
September 4, 2006	A. Van Dam	1000-1100	clear, calm, 96-107°F for day
September 7, 2006	K. Osborne	1047-1133	clear, calm, 87-90°F
September 10, 2006	K. Osborne	1029-1230	clear, calm, 82-85°F
September 14, 2006	A. Van Dam	1044-1230	overcast, calm, 80°F
September 16, 2006	R. Rogers	1220-1400	clear, wind 0-2 mph, 84-89°F
September 18, 2006	A. Van Dam	1229-1400	clear, calm, 97°F

Table 2. Area 2: Dates, personnel, times and conditions for DSF survey work.

Date	Biologists	Hours	Weather Conditions
July 1, 2006	K. Osborne	1102-1121	clear, calm, 97-105°F for day
July 2, 2006	M. Van Dam	1210-1332	clear, wind 0-2 mph, 101°F
July 4, 2006	K. Osborne	1046-1112	clear, calm, 89-90°F
July 4, 2006	M. Van Dam	1140-1300	clear, calm, 92°F
July 9, 2006	A. Van Dam	1226-1315	clear, wind 2-3 mph, 92-104°F for day
July 10, 2006	A. Van Dam	1115-1240	clear, wind 1-6, 94-104°F for day
July 15, 2006	A. Van Dam	1141-1300	clear, wind 2-6, 95-108°F
July 17, 2006	A. Van Dam	1107-1237	20-80% clouds, wind 1-8 mph, 91-104°F
July 22, 2006	A. Van Dam	1106-1236	0-10% clouds, calm, 100-102°F
July 24, 2006	A. Van Dam	1105-1235	0-30% clouds, calm, 100°F
	A. Van Dam		
July 29, 2006	and R. Rogers	1032-1112	clouds 40-90%, 85-90°F, winds 0-12 mph
	A. Van Dam		
August 1, 2006	and R. Rogers	1123-1203	50% clouds, wind 0-2 mph, 85-90°F for day
August 5, 2006	A. Van Dam	1105-1150	clear, calm, 87-95°F
August 7, 2006	A. Van Dam	1107-1152	overcast, calm, 80°F
August 12, 2006	A. Van Dam	1110-1155	clear, wind 0-2 mph, 100°F
August 12, 2006	K. Osborne	1148-1159	clear, calm, 87°F
August 14, 2006	A. Van Dam	1104-1149	clear, wind 0-2 mph, 95°F
August 19, 2006	A. Van Dam	1105-1150	clear, calm, 89-95°F for day
August 21, 2006	A. Van Dam	1105-1150	clear, calm, 86-100°F for day
August 26, 2006	A. Van Dam	1147-1232	clear, wind 0-2 mph, 87-98°F for day
August 28, 2006	A. Van Dam	1140-1225	clear, calm, 96-98°F

Table 3. Area 3: Dates, personnel, times and conditions for DSF survey work.

Date	Biologists	Hours	Weather Conditions
July 1, 2006	K. Osborne	1123-1126	clear, calm, 97-105°F for day
July 2, 2006	M. Van Dam	1334-1337	clear, wind 0-2 mph, 102°F
July 4, 2006	M. Van Dam	1130-1133	clear, calm, 90°F
July 9, 2006	A. Van Dam	1217-1224	clear, wind 2-3 mph, 92-104°F for day
July 10, 2006	A. Van Dam	1242-1248	clear, wind 1-6, 94-104°F for day
July 15, 2006	A. Van Dam	1136-1140	clear, wind 2-6, 95-108°F
July 17, 2006	A. Van Dam	1238-1242	20-80% clouds, wind 1-8 mph, 91-104°F
July 22, 2006	A. Van Dam	1239-1244	0-10% clouds, calm, 100-102°F
July 24, 2006	A. Van Dam	1240-1245	0-30% clouds, calm, 100°F
	A. Van Dam		
July 29, 2006	and R. Rogers	1114-1119	clouds 40-90%, 85-90°F, winds 0-12 mph
	A. Van Dam		
August 1, 2006	and R. Rogers	1113-1116	50% clouds, wind 0-2 mph, 85-90°F for day
August 5, 2006	A. Van Dam	1057-1102	clear, calm, 87-90°F
August 7, 2006	A. Van Dam	1159-1202	clear, wind 0-2, 90-91°F
August 12, 2006	A. Van Dam	1334-1339	clear, wind 0-2 mph, 100°F
August 14, 2006	A. Van Dam	1158-1203	clear, wind 0-2 mph, 95°F
August 19, 2006	A. Van Dam	1200-1205	clear, calm, 89-95°F for day
August 21, 2006	A. Van Dam	1155-1200	clear, calm, 86-100°F for day
August 26, 2006	A. Van Dam	1137-1144	clear, wind 0-2 mph, 87-98°F for day
August 28, 2006	A. Van Dam	1132-1137	clear, calm, 96°F
September 2, 2006	A. Van Dam	1150-1155	clear, wind 0-2 mph, 100-104°F for day
September 4, 2006	A. Van Dam	1108-1113	clear, calm, 96-107°F for day
September 11, 2006	A. Van Dam	1228-1233	clear, calm, 87-95°F for day
September 14, 2006	A. Van Dam	1234-1239	overcast, wind 0-2, 83°F
September 16, 2006	K. Osborne	1010-1018	clear, calm, 80°F
September 18, 2006	A. Van Dam	1219-1224	clear, calm, 97°F

Table 4. Area 4: Dates, personnel, times and conditions for DSF survey work.

Date	Biologists	Hours	Weather Conditions
July 1, 2006	K. Osborne	1129-1139	clear, calm, 97-105°F for day
July 2, 2006	M. Van Dam	1340-1400	clear, wind 0-2 mph, 103°F
July 4, 2006	M. Van Dam	1025-1045	clear, calm, 84°F
July 9, 2006	A. Van Dam	1151-1213	clear, wind 2-3 mph, 92-104°F for day
July 10, 2006	A. Van Dam	1250-1310	clear, wind 1-6, 94-104°F for day
July 15, 2006	A. Van Dam	1107-1127	clear, wind 2-6, 95-108°F
July 17, 2006	A. Van Dam	1248-1309	20-80% clouds, wind 1-8 mph, 91-104°F
July 22, 2006	A. Van Dam	1247-1307	0-10% clouds, calm, 100-102°F
July 24, 2006	A. Van Dam	1247-1307	0-30% clouds, calm, 100°F
	A. Van Dam		
July 29, 2006	and R. Rogers	1205-1216	clouds 40-90%, 85-90°F, winds 0-12 mph
	A. Van Dam		
August 1, 2006	and R. Rogers	1051-1058	50% clouds, wind 0-2 mph, 85-90°F for day
August 5, 2006	A. Van Dam	1035-1055	clear, calm, 87-90°F
August 7, 2006	A. Van Dam	1207-1227	clear, wind 0-2, 90-91°F
August 12, 2006	A. Van Dam	1244-1306	clear, wind 0-2 mph, 100°F
August 14, 2006	A. Van Dam	1209-1229	clear, wind 0-2 mph, 95°F
August 19, 2006	A. Van Dam	1208-1228	clear, calm, 89-95°F for day
August 21, 2006	A. Van Dam	1204-1224	clear, calm, 86-100°F for day
August 26, 2006	A. Van Dam	1113-1133	clear, wind 0-2 mph, 87-98°F for day
August 28, 2006	A. Van Dam	1108-1128	clear, calm, 90-96°F
September 2, 2006	A. Van Dam	1200-1220	clear, wind 0-2 mph, 100-104°F for day
September 4, 2006	A. Van Dam	1118-1138	clear, calm, 96-107°F for day
September 11, 2006	A. Van Dam	1200-1220	clear, calm, 87-95°F for day
September 13, 2006	A. Van Dam	1117-1137	clear, calm, 87-93°F
	K. Osborne		
September 16, 2006	and R. Rogers	1157-1202	clear, winds 0-2 mph, 84°F
September 18, 2006	A. Van Dam	1110-1130	clear, calm, 97°F
September 20, 2006	K. Osborne	1213-1233	clear, calm, 86°F

Table 5. Area 5: Dates, personnel, times and conditions for DSF survey work.

Date	Biologists	Hours	Weather Conditions
July 1, 2006	K. Osborne	1147-1204	clear, calm, 97-105°F for day
July 4, 2006	M. Van Dam	1050-1120	clear, calm, 86°F
July 9, 2006	A. Van Dam	1108-1138	clear, wind 2-3 mph, 92-104°F for day
July 10, 2006	A. Van Dam	1312-1342	clear, wind 1-6, 94-104°F for day
July 15, 2006	A. Van Dam	1028-1058	clear, wind 2-6, 95-108°F
July 17, 2006	A. Van Dam	1312-1342	20-80% clouds, wind 1-8 mph, 91-104°F
July 22, 2006	A. Van Dam	1310-1340	0-10% clouds, calm, 100-102°F
July 24, 2006	A. Van Dam	1312-1342	0-30% clouds, calm, 100°F
	A. Van Dam		
July 29, 2006	and R. Rogers	1229-1244	clouds 40-90%, 85-90°F, winds 0-12 mph
	A. Van Dam		
August 1, 2006	and R. Rogers	1036-1048	50% clouds, wind 0-2 mph, 85-90°F for day
August 2, 2006	K. Osborne	1154-1230	partial clouds to clear, wind 0-5 mph, 82-85°F
August 5, 2006	K. Osborne	1134-1215	clear, calm, 86°F
August 7, 2006	A. Van Dam	1232-1302	clear, wind 0-2, 90-91°F
August 12, 2006	A. Van Dam	1202-1232	clear, wind 0-2 mph, 100°F
August 14, 2006	A. Van Dam	1236-1306	clear, wind 0-2 mph, 95°F
August 19, 2006	A. Van Dam	1230-1300	clear, calm, 89-95°F for day
August 21, 2006	A. Van Dam	1230-1300	clear, calm, 86-100°F for day
August 26, 2006	A. Van Dam	1027-1057	clear, wind 0-2 mph, 87-98°F for day
August 28, 2006	A. Van Dam	1028-1058	clear, calm, 90°F
September 2, 2006	A. Van Dam	1230-1300	clear, wind 0-2 mph, 100-104°F for day
September 4, 2006	A. Van Dam	1143-1217	clear, calm, 96-107°F for day
September 11, 2006	A. Van Dam	1126-1156	clear, calm, 87-95°F for day
September 14, 2006	A. Van Dam	1242-1313	overcast, wind 0-2, 83°F
	K. Osborne		
September 16, 2006	and R. Rogers	1028-1050	clear, calm, 80°F
September 18, 2006	A. Van Dam	1140-1210	clear, calm, 97°F

Table 6. Area 6: Dates, personnel, times and conditions for DSF survey work.

Date	Biologists	Hours	Weather Conditions
1 July 2006	K. H. Osborne	1300 - 1330	93°F, calm
10019 2000	12, 11, 00001110	1000 1000	,
July 1, 2006	K. Osborne	1208-1258	clear, calm, 97-105°F for day
July 4, 2006	M. Van Dam	1000-1020	clear, wind 0-2 mph, 82°F
July 4, 2006	K. Osborne	1117-1205	clear, calm, 89-90°F
July 9, 2006	A. Van Dam	1032-1058	clear, wind 2-3 mph, 92-104°F for day
July 9, 2006	K. Osborne	1214-1256	clear, winds 0-5 mph, 105°F
July 10, 2006	A. Van Dam	1344-1400	clear, wind 1-6, 94-104°F for day
July 14, 2006	A. Van Dam	1000-1040	15% clouds, calm, 90-100°F
July 15, 2006	A. Van Dam	1000-1020	clear, wind 2-6, 95-108°F
July 17, 2006	A. Van Dam	1343-1400	20-80% clouds, wind 1-8 mph, 91-104°F
July 21, 2006	A. Van Dam	1000-1040	clear, winds 0-5 mph, 92°F
July 22, 2006	A. Van Dam	1341-1400	0-10% clouds, calm, 100-102°F
July 23, 2006	A. Van Dam	1000-1040	clouds 50-100%, wind 2-8 mph, 92-97°F
July 24, 2006	A. Van Dam	1345-1400	0-30% clouds, calm, 100°F
July 27, 2006	K. Osborne	1134-1222	clear, calm, 90°F
	A. Van Dam		
July 29, 2006	and R. Rogers	1253-1327	clouds 40-90%, 85-90°F, winds 0-12 mph
	A. Van Dam		
August 1, 2006	and R. Rogers	1016-1026	50% clouds, wind 0-2 mph, 85-90°F for day
August 1, 2006	K. Osborne	1205-1245	clear, calm, 84°F
August 5, 2006	A. Van Dam	1010-1030	clear, calm, 75-79°F
	A. Van Dam		
August 6, 2006	and R. Rogers	1340-1400	clear, wind 0-8, 95°F
August 7, 2006	A. Van Dam	1310-1330	clear, wind 0-2, 90-91°F
	A. Van Dam		
August 9, 2006	and R. Rogers	1230-1250	clear, calm, 89-101°F
August 12, 2006	K. Osborne	1207-1255	clear, calm, 87°F
August 12, 2006	A. Van Dam	1312-1332	clear, wind 0-2 mph, 100°F
August 14, 2006	A. Van Dam	1319-1339	clear, wind 0-2 mph, 95°F
	A. Van Dam		
August 16, 2006	and R. Rogers	1008-1048	clear, wind 0-2 mph, 84-94°F
August 19, 2006	A. Van Dam	1308-1328	clear, calm, 89-95°F for day
August 20, 2006	A. Van Dam	1000-1040	clear, calm, 85-103°F for day
August 21, 2006	A. Van Dam	1306-1326	clear, calm, 86-100°F for day
August 23, 2006	A. Van Dam	1045-1125	clear, wind 0-2, 95-100°F for day
August 26, 2006	A. Van Dam	1000-1020	clear, wind 0-2 mph, 87-98°F for day
August 27, 2006	A. Van Dam	1046-1126	clear, wind 0-2 mph, 90-103°F for day
August 28, 2006	A. Van Dam	1000-1020	clear, calm, 80-85°F
August 30, 2006	A. Van Dam	1000-1040	clear, calm, 89-100°F
September 2, 2006	A. Van Dam	1305-1325	clear, wind 0-2 mph, 100-104°F for day

September 3, 2006	A. Van Dam	1000-1040	clear, calm, 99-107°F for day
September 4, 2006	A. Van Dam	1225-1245	clear, calm, 96-107°F for day
September 7, 2006	K. Osborne	1138-1220	clear, calm, 90-93°F
September 8, 2006	K. Osborne	1116-1136	clear, wind 0-5 mph, 82°F
September 11, 2006	A. Van Dam	1015-1117	clear, calm, 87-95°F for day
		1010-1030,	
September 13, 2006	A. Van Dam	1036-1116	clear, calm, 87°F
September 16, 2006	K. Osborne	1102-1130	clear, calm, 80-84°F
September 16, 2006	R. Rogers	1102-1136	clear, calm, 80°F
	K. Osborne		
September 16, 2006	and R. Rogers	1136-1150	clear, calm, 80-84°F
September 18, 2006	A. Van Dam	1000-1106	clear, calm, 85-95°F

Table 7. Area 8: Dates, personnel, times and conditions for DSF survey work.

Date	Biologists	Hours	Weather Conditions
July 2, 2006	K. Osborne	1215-1345	clear, calm, 96°F
July 4, 2006	K. Osborne	1220-1445	clear, calm, 89-90°F
July 10, 2006	K. Osborne	1301-1400	clear, wind 0-2 mph, 102°F
July 19, 2006	K. Osborne	1310-1400	clear, 0-2 mph, 100°F
July 23, 2006	A. Van Dam	1145-1245	clouds 50-100%, wind 2-8 mph, 92-97°F
July 27, 2006	K. Osborne	1240-1330	clear, calm, 90°F
July 29, 2006	B. Drake	1230-1330	90% clouds, wind 0-5 mph, 88-92°F
August 5, 2006	B. Drake	1230-1330	clear, wind 0-2 mph, 89-94°F
August 8, 2006	B. Drake	1030-1130	10% clouds, wind 0-4 mph, 83-90°F
August 10, 2006	B. Drake	1030-1130	65% clouds, wind 0-2 mph, 73-80°F
August 12, 2006	B. Drake	1230-1330	clear, calm, 92-98°F
August 14, 2006	K. Osborne	1130-1230	clear, calm, humid, 85-90°F
August 19, 2006	B. Drake	1230-1330	clear, calm. 86-91°F
August 22, 2006	B. Drake	1030-1130	10% clouds, winds 0-5 mph, 90-95°F
August 26, 2006	B. Drake	1230-1330	clear, winds 0-5 mph, 89-92°F
August 29, 2006	B. Drake	1030-1130	10% clouds, winds 0-4 mph, 89-98°F
September 2, 2006	B. Drake	1230-1330	20% clouds, wind 0-4 mph, 98-102°F
September 5, 2006	B. Drake	1030-1130	20% clouds, calm, 93-101°F
September 10, 2006	K. Osborne	1300-1400	clear, wind 0-5 mph, 85°F
September 11, 2006	K. Osborne	1204-1304	clear, winds 0-5 mph, 92°F
September 16, 2006	B. Drake	1230-1330	clear, winds 0-6 mph, gusts to 11, 87-89°F
September 19, 2006	K. Osborne	1230-1330	clear, winds 0-2 mph,, 91°F

Table 8. Area 9: Dates, personnel, times and conditions for DSF survey work.

	T		
Date	Biologists	Hours	Weather Conditions
July 1, 2006	K. Osborne	1340-1440	clear, calm, 97-105°F for day
July 3, 2006	M. Van Dam	1000-1400	clear to overcast, 2-10 mph, 87-94°F
July 3, 2006	K. Osborne	1118-1148	high overcast, calm, 98-102°F
		1000 1100	clear, mostly calm (gusts to 10 mph), 81-
July 5, 2006	M. Van Dam	1000-1400	99°F
July 6, 2006	M. Van Dam	1050-1100	clear, winds 0-5 mph, to 90°F
July 9, 2006	K. Osborne	1314-1324	clear, winds 0-5 mph, to 106°F
July 12, 2006	E. Shafhauser	1000-1400	clear, wind 0-3 mph, 86-101°F
July 12, 2006	A. Van Dam	1158-1208	clear, wind 2-4 mph, 97-105°F
1 1 14 2006	E CI C	1000 1400	50% patchy clouds, wind 0-3 mph, 90-
July 14, 2006	E. Shafhauser	1000-1400	107°F
July 19, 2006	E. Shafhauser	1000-1400	40-50% high cirrus, wind 0-6 mph, 88-101°F
July 19, 2006	A. Van Dam	1150-1200	
July 17, 2000	A. Vali Daili	1130-1200	clear, calm, 95° <i>F</i> clear, 20% high cirrus, wind 0-4 mph, gusts
July 21, 2006	E. Shafhauser	1000-1400	to 9 mph, 87-106°F
July 23, 2006	A. Van Dam	1255-1305	clouds 50-100%, wind 2-8 mph, 92-97°F
			40% patchy clouds, wind 0-3 mph, 89-
July 24, 2006	E. Shafhauser	1000-1400	103°F
July 25, 2006	A. Van Dam	1000-1400	clear, 95-106°F, winds 3-10 mph
July 27, 2006	K. Osborne	1340-1400	clear, calm, 90°F
July 28, 2006	K. Osborne	1052-1134	clearing, calm,
July 28, 2006	K. Osborne	1052-1134	25% clouds, calm, 87°F
	K. Osborne		,
July 28, 2006	and R. Rogers	1134-1315	clear, calm, 84-90°F
	K. Osborne		
July 28, 2006	and R. Rogers	1134-1316	25% clouds, calm, 87-90°F
July 28, 2006	R. Rogers	1316-1400	25% clouds, calm, 90° <i>F</i>
	A. Van Dam		2070 010 000, 001111, 5 0 1
July 29, 2006	and R. Rogers	1355-1400	clouds 40-90%, 85-90°F, winds 0-12 mph
	A. Van Dam		
July 30, 2006	and R. Rogers	1054-1154	clouds 70-100%, 82-85°F, wind 2 mph
	A. Van Dam		210dd 70 10070, 62 65 1 , Wild 2 iipii
August 1, 2006	and R. Rogers	1337-1342	50% clouds, wind 0-2 mph, 85-90°F for day
1145451, 2000	A. Van Dam	1307 13 12	5070 clouds, while 0.2 mph, 05.70 T for day
August 3, 2006	and R. Rogers	1000-1100	overcast, calm, 73-79°F
August 4, 2006	K. Osborne	1045-1250	clear, calm, 88-96°F
1145450 1, 2000	A. Van Dam	1015 1250	Civai, Caini, 60-70 I
August 6, 2006	and R. Rogers	1000-1210	clear, wind 0-2 mph, 82-95°F
1145451 0, 2000	A. Van Dam	1000 1210	Cicai, wind 0-2 inpii, 62-73 1
August 9, 2006	and R. Rogers	1000-1200	clear, calm, 89-101°F
August 13, 2006	A. Van Dam	1030-1200	clear, calm, 89-101 F
August 13, 2000	A. Vali Dalli	1030-1330	Cicai, Caiiii, 82 F

	and R. Rogers		
August 14, 2006	R. Rogers	1205-1215	clear, calm, 88 °F
August 16, 2006	R. Rogers	1015-1245	clear, wind 1-3, 84-94°F
	A. Van Dam		
August 16, 2006	and R. Rogers	1108-1245	clear, wind 2-4 mph, 94°F
August 20, 2006	R. Rogers	1030-1040	clear, calm, 85°F
3,000	A. Van Dam		
August 20, 2006	and R. Rogers	1145-1345	clear, wind 2-3 mph, 103°F
	A. Van Dam		, , , , , , , , , , , , , , , , , , ,
August 20, 2006	and R. Rogers	1145-1345	clear, calm, 85-103°F for day
August 23, 2006	R. Rogers	1045-1055	clear, calm, 100°F
	A. Van Dam		
August 23, 2006	and R. Rogers	1100-1300	clear, calm, 100°F
	A. Van Dam		
August 23, 2006	and R. Rogers	1145-1315	clear, wind 0-2, 95-100°F for day
August 27, 2006	R. Rogers	1115-1330	clear, wind 1-2 mph, 103°F
	A. Van Dam		•
August 27, 2006	and R. Rogers	1143-1330	clear, wind 1-2 mph, 103°F
August 27, 2006	R. Rogers	1330-1350	clear, wind 1-2 mph, 103°F
August 30, 2006	R. Rogers	1120-1335	clear, wind 0-2 mph, 100-105°F
August 30, 2006	A. Van Dam	1135-1335	clear, wind 1-2 mph, 105°F
September 2, 2006	R. Rogers	1320-1330	clear, wind 1-2 mph, 102°F
•	A. Van Dam		
September 3, 2006	and R. Rogers	1000-1255	5% patchy clouds, calm, 99-107°F
	A. Van Dam		
September 3, 2006	and R. Rogers	1145-1255	clear, calm, 99-107°F for day
September 4, 2006	R. Rogers	1250-1300	clear to patchy clouds, calm, 100°F
	A. Van Dam		
September 6, 2006	and R. Rogers	1015-1215	clear, winds 0-2, 94-100°F
	A. Van Dam		
September 6, 2006	and R. Rogers	1030-1230	clear, calm, 100-108°F
September 10, 2006	R. Rogers	1000-1400	clear, wind 0-2, 84-92°F
September 11, 2006	R. Rogers	1225-1235	clear, wind 2-3 mph, 92 °F
September 12, 2006	R. Rogers	1000-1400	clear, calm, 92-101°F
September 14, 2006	R. Rogers	1215-1225	overcast, calm, 81°F
September 17, 2006	R. Rogers	1110-1120	clear, wind 0-7, 88-95°F for day
September 17, 2006	A. Van Dam	1000-1400	clear, winds 0-3, later 5-10 mph, 88-99°F
September 19, 2006	R. Rogers	1000-1400	clear, winds 0-2, 85-92°F
September 20, 2006	R. Rogers	1045-1055	clear, winds 0-4, 89 to 90°F

Table 9. Area 10: Dates, personnel, times and conditions for DSF survey work.

work.			
Date	Biologists	Hours	Weather Conditions
July 1, 2006	K. Osborne	1314-1334	clear, calm, 97-105°F for day
	N. Moorhatch		
July 5, 2006	and M. Wilcox	1000-1400	clear-hazy, winds 0-3, 78-87°F
	N. Moorhatch		
July 7, 2006	and M. Wilcox	1000-1130	clear, winds 0-2 mph, 86-88°F
July 9, 2006	A. Van Dam	1000-1400	clear, wind 0-5, 94-105°F
July 11, 2006	E. Shafhauser	1000-1400	clear, wind 1-3 mph, 87-101°F
July 11, 2006	A. Van Dam	1000-1400	clear, calm, 93-102°F
July 13, 2006	E. Shafhauser	1000-1400	clear, wind 0-5 mph, 83-103°F
July 16, 2006	A. Van Dam	1000-1400	30-40% clouds, wind 0-2 mph, 92+°F
July 18, 2006	A. Van Dam	1000-1400	clear, wind 1-10, 94-98°F
July 20, 2006	E. Shafhauser	1000-1400	clear, winds 0-5 mph, 82-96°F
			20-30% clouds, winds 0-2, gusts to 6 mph,
July 21, 2006	B. Drake	1030-1200	91-99°F
July 22, 2006	E. Shafhauser	1000-1400	40% patchy cumulonimbus, wind 0-3 mph,
July 22, 2006	E. Shamausei	1000-1400	96-111° <i>F</i> overcast to 80% patchy, wind 0-5 mph, 87-
July 23, 2006	E. Shafhauser	1000-1400	111°F
•			80% marine layer to 1130, then clear, 97-
July 26, 2006	A. Van Dam	1000-1400	102°F, winds 2-5 mph
July 27, 2006	A. Van Dam	1000-1400	clear, 91-100°F, winds 0-8 mph
	A. Van Dam		
August 2, 2006	and R. Rogers	1000-1400	hazy, clearing, wind 0-4 mph, 91-96°F
	A. Van Dam		
August 4, 2006	and R. Rogers	1000-1400	clear, wind 0-3 mph, 92-95°F
August 4, 2006	K. Osborne	1020-1040	10% clouds, clearing, calm, 85°F
	A. Van Dam		
August 6, 2006	and R. Rogers	1230-1320	clear, wind 0-8, 95°F
	A. Van Dam		
August 8, 2006	and R. Rogers	1000-1310	clear, calm, 92-103°F
	A. Van Dam		
August 10, 2006	and R. Rogers	1000-1400	clear, wind 0-4 mph, 96-100°F
	A. Van Dam		
August 13, 2006	and R. Rogers	1335-1400	clear, calm, 93°F
	A. Van Dam		
August 15, 2006	and R. Rogers	1000-1335	50% overcast, clearing, calm, 90-93°F
	A. Van Dam		
August 17, 2006	and R. Rogers	1000-1400	clear, calm, 94-98°F
	A. Van Dam		
August 22, 2006	and R. Rogers	1000-1400	clear, calm, 101-103°F
	A. Van Dam		
August 24, 2006	and R. Rogers	1000-1400	clear, wind 0-2, 94-100°F
August 29, 2006	A. Van Dam	1000-1400	clear, calm, 94-104° <i>F</i>

	and R. Rogers		
	A. Van Dam		
August 31, 2006	and R. Rogers	1000-1400	clear, wind 0-2 mph, 90-99°F
September 3, 2006	A. Van Dam	1300-1400	clear, calm, 99-107°F for day
September 3, 2006	R. Rogers	1300-1400	5% patchy clouds, calm, 107°F
September 4, 2006	R. Rogers	1125-1155	clear, calm, 90-100°F
	A. Van Dam		
September 5, 2006	and R. Rogers	1000-1400	clear, calm, 102-103°F
	A. Van Dam		
September 7, 2006	and R. Rogers	1000-1200	clear, calm, 94-96°F
	A. Van Dam		
September 8, 2006	and R. Rogers	1000-1200	clear, calm, 93-94°F
	K. Osborne		
	and A. Van		
September 13, 2006	Dam	1210-1408	clear, wind 2 mph, 93°F
September 17, 2006	R. Rogers	1130-1330	clear, wind 0-7, 88-95°F for day
September 18, 2006	R. Rogers	1000-1400	clear, wind 0-3 mph, 87-96°F
September 19, 2006	B. Drake	1300-1400	clear, winds 0-6 mph, 90-94°F
September 20, 2006	R. Rogers	1130-1400	clear, winds 0-4, 89 to 90°F

Table 10. Area 11: Dates, personnel, times and conditions for DSF survey work.

Date	Biologists	Hours	Weather Conditions
July 3, 2006	K. Osborne	1319-1345	high overcast, calm, 105°F
July 6, 2006	M. Van Dam	1000-1020	clear, winds 0-5 mph, 81°F
July 8, 2006	K. Osborne	1200-1220	clear, calm, 100°F
July 12, 2006	A. Van Dam	1318-1338	clear, wind 2-4 mph, 97-105°F
July 19, 2006	A. Van Dam	1311-1331	clear, calm, 95°F
July 23, 2006	A. Van Dam	1345-1400	clouds 50-100%, wind 2-8 mph, 92-97°F
	K. Osborne		
July 28, 2006	and R. Rogers	1022-1032	50% clouds, calm, 84°F
	A. Van Dam		
July 30, 2006	and R. Rogers	1000-1010	clouds 70-100%, 79-82°F, wind 2 mph
	A. Van Dam		
August 3, 2006	and R. Rogers	1240-1250	overcast, calm, 79°F
August 5, 2006	R. Rogers	1245-1305	clear, calm, 85°F
August 7, 2006	R. Rogers	1330-1350	clear, calm, 88-89°F
August 14, 2006	R. Rogers	1015-1035	clear, wind 1-2, 87°F
August 19, 2006	R. Rogers	1250-1310	clear, wind 3-4 mph, 90-95°F
August 21, 2006	R. Rogers	1255-1315	clear, calm, 96-97°F
August 26, 2006	R. Rogers	1250-1315	clear, wind 0-3 mph, 95°F
August 28, 2006	R. Rogers	1250-1310	clear, calm, 98-100°F
September 2, 2006	R. Rogers	1200-1220	clear, wind 1-2 mph, 100°F
September 4, 2006	R. Rogers	1100-1120	clear, calm, 90°F

September 11, 2006	R. Rogers	1115-1135	clear, wind 2-3 mph, 90°F
September 14, 2006	R. Rogers	1100-1120	overcast, wind 0-3, 80-81°F
September 17, 2006	R. Rogers	1000-1020	clear, wind 8-10, 88°F
September 20, 2006	R. Rogers	1100-1120	clear, winds 0-4, 89 to 90°F

Table 11. Area 12: Dates, personnel, times and conditions for DSF survey work.

Date	Biologists	Hours	Weather Conditions
July 3, 2006	K. Osborne	1217-1242	high overcast, calm, 103°F
July 6, 2006	M. Van Dam	1105-1150	clear, winds 0-5 mph, to 93°F
July 9, 2006	K. Osborne	1324-1400	clear, winds 0-5 mph, to 106°F
July 12, 2006	A. Van Dam	1218-1240	clear, wind 2-4 mph, 97-105°F
July 19, 2006	A. Van Dam	1220-1305	clear, calm, 95°F
July 23, 2006	A. Van Dam	1310-1340	clouds 50-100%, wind 2-8 mph, 92-97°F
July 28, 2006	R. Rogers	1049-1134	25% clouds, calm, 87-90°F
July 28, 2006	R. Rogers	1049-1134	25% clouds, calm, 87°F
	A. Van Dam		
July 30, 2006	and R. Rogers	1025-1047	clouds 70-100%, 82-85°F, wind 2 mph
	A. Van Dam		
August 3, 2006	and R. Rogers	1205-1228	overcast, calm, 73-79°F
August 5, 2006	R. Rogers	1310-1400	clear, calm, 97 °F
	A. Van Dam		
August 8, 2006	and R. Rogers	1325-1346	clear, calm, 92-103°F
August 14, 2006	R. Rogers	1040-1205	clear, calm, 88 °F
August 20, 2006	R. Rogers	1040-1125	clear, wind 2-3 mph, 103°F
August 23, 2006	R. Rogers	1000-1045	clear, calm, 98°F
August 27, 2006	R. Rogers	1030-1115	clear, calm, 92°F
August 30, 2006	R. Rogers	1035-1120	clear, calm, 90-105°F
September 2, 2006	R. Rogers	1230-1320	clear, wind 1-2 mph, 100-102°F
September 4, 2006	R. Rogers	1200-1245	clear, calm, 90-100°F
September 11, 2006	R. Rogers	1140-1225	clear, wind 2-3 mph, 90-92°F
September 14, 2006	R. Rogers	1125-1210	overcast, wind 0-3, 80-81°F
September 17, 2006	R. Rogers	1025-1110	clear, wind 0-7, 88-95°F for day
September 20, 2006	R. Rogers	1000-1045	clear, winds 0-4, 89 to 90°F

Table 12. Plant species encountered on the survey areas (2006)

Family/common name ADOXACEAE	Species	Area	1	2	3	4	5	6	7	8	9	10	11	12
Mexican elderberry	Sambucus mex	xicana	x	x				х						
AMERANTHACEAE				~										
white tumbleweed	Amaranthus albus		х	х	х			х		x	х	х	х	х
ANACARDIACEAE														
Peruvian Peppertree	Schinus molle		х	х				х						
ARECACEAE														
fan palm	Washingtonia							х			х			
ASTERACEAE														
Annual bur-weed	Ambrosia aca	nthicarpa	х	х	х	х	х	х		х	х		х	х
California sage	Artemisia cali	fornica				х		х		х				
tarragon	Artemisia drae	cunculus								х				
mule fat	Baccharis sali	icifolia			х			х		х	х		х	
Tocalote	Centaurea me	litensis				Х	Х	х						х
common pineapple weed	Chamomilla s	uaveolens						х						
bull thistle	Ciricium vulgo	are	х						х					
flax-leaved horseweed	Conyza bonar	iensis	х				х	х					х	х
brittlebush	Encelia farino	osa	Х		X	х	X	х						
sunflower	Helianthus an	пиа	х	X	Х	Х	Х	х		X	Х	X	х	Х
telegraphweed	Heterotheca g	randiflora	Х	Х		X	X	х		x			Х	X
prickly lettuce	Lactuca serrio	ola						х				X		X
cudweed aster	Lessingia filag	ginifolia								х				
common sow-thistle	Sonchus olera							х				x	Х	
	Verbesina enc	elioides						Х		X	Х	X	Х	X
BORAGINACEAE														
ranchers fiddleneck	Amsinkia men		Χ				X	х						
heliotrope	Heliotropium	crassavicum								X	Х			
BRASSICACEAE														
shortpod mustard	Hirschfeldia ii		Χ		Х	X	X	х			X		Х	Х
London rocket	Sisymbrium ir		Х								Х	X	Х	Χ
wild radish	Raphanus sati	ivus					Х							
CACTACEAE	_	_												
prickly pear	Opuntia littore		Х					X						
valley cholla	Opuntia parry	ri —	Х					Х						
CHENOPODIACEAE	4													
Saltbush	Atriplex canes							Х						
pitseed goosefoot	Chenopodium											Х		
Kochia	Kochia scopai										Х	X		X
russion thistle	Salsola tragus	1	Х								Х	X	Х	X
CUSCUTACEAE														
Dove weed	Eremocarpus	setigerus	Х											
EUPHORBIACEAE	C 4 1:C													
California croton	Croton califor		Х			Х	Х			Х				
castor-bean	Ricinus comm	unis	Х		Х	Х	Х							
FABACEAE Polo yeardo	Canai di A													
Palo verde	Cercidium flor									Х				
deer weed	Lotus scoparii	us	Х											

•.	D											
mesquite	Prosopis glandulosa	Х										
GERANIACEAE												
red-stem filaree	Erodium cicutarium	Х		Х	Х				Х		Х	Х
GROSSULARIACEAE	D.1 1.6											
hillside gooseberry	Ribes californicum											
HYDROPHYLLACEAE												
common phacelia	Phacelia distans							Х				
LAMINACEAE												
Horehound	Marubium vulgare	Х										
black sage	Salvia mellifera			Х								
MYRTACEAE												
Eucalyptus	Eucalyptus	Х	Χ		Х	Х			Х	Х		
ONAGRACEAE	~ · · · · · ·											
California sun cup	Camissonia bistorta	Х										
PINACEAE												
Pine	Pinus					Х						
POLYGONACEAE												
slender buchwheat	Eriogonum gracile	Х										
Cal buckwheat	Eriogonum fasciculatum	Х		Х		Х		Х				
curly dock	Rumex crispus								Х			
SALICACEAE												
cottonwood	Populus femontii						Х	Х				
Black willow	Salix gooddingii						Х	Х	Х			
arroyo willow	Salix lasiolepis						Х	Х	Х			
sandbar willow	Salix exigua						Х					
SIMAROUBACEAE												
tree of heaven	Ailanthus altissima					Х			Х		Х	
SOLANACEAE												
Jimson weed	Datura wrightii	Х							Х			X
tree tobacco	Nicotiana glauca	Х		Х	Х	Х			Х		Х	
TAMARICACEAE												
Mediterranean tamarisk	Tamarix ramosissima	Х					Х	Х	Х			
VITACEAE												
Grape	Vitis vinifera						Х	Х				
ZYGOPHYLLACEAE												
Puncture vine	Tribulus terrestris	Х										X
POACEAE												
Giant cane	Arundo donax						х	Х				
slender oat	Avena barbata		Х			х						х
ripgut	Bromus diandrus	X	Х			х			Х	х		х
Foxtail chess/red brome	Bromus madritensis	х		Х	Х	х			х			х
Bermuda grass	Cynodon dactylon	х				х				х	Х	
Schismus	Schismus barbatus	x		х		х			х			х
TYPHACEAE												
cat-tail	Typha						x					

Table 13. Insects encountered on the survey areas (2006).

Diptera												
Family	Species Area	1	2	3	4	5	6	8	9	10	11	12
Mydidae (DSF)	Rhaphiomidas terminatus	X	X									
Mydidae	Nemomydas pantherinus	X					X		X			
Apioceridae	Apiocera convergens	X										
Apioceridae	Apiocera crysolasia	X			X		X					
Asilidae	Efferia albibarbis	X	X				X	X	X	X	X	X
Asilidae	Mallophora fautrix	X					X	X	X			
Asilidae	Promachus aldrichii	X	X		X		X					
Asilidae	Saropogon luteus				X		X		X	X		
Asilidae	Stenopogon brevisculus	X					X	X	X	X	X	X
Asilidae	Stenopogon rufibarbis	X										
Bombyliidae	Exoprosopa butleri	X			X	X						
Bombyliidae	Exoprosopa divisa				X	X	X					
Bombyliidae	Neodiplocampta mira								X			
Bombyliidae	Neodiplocampta mira				X							
Bombyliidae	Poecilanthrax arethusa							X				
Bombyliidae	Poecilognathus						X					
Bombyliidae	Thyridanthrax atrata	X	X		X	X	X	X	X	X	X	X
Bombyliidae	Thyridanthrax nugator				X		X					
Bombyliidae	Toxophora pellucida	X										
Bombyliidae	Villa lateralis	X							X			
Bombyliidae	Villa miscella				X							
Bombyliidae	Villa moliter	X	X		X	X	X	X	X	X	X	X
Calliphoridae	Phaenicia sericata	X						X	X			
Conopidae	Physocephala texana				X		X	X	X			
Dolichopodidae	Condylostylus pilicornis						X	X	X			
Muscidae	Musca domestica	X	X	X	X	X	X	X	X	X	X	X
Sarcophagidae	Sarcophaga sp	X						X	X			
Syrphidae	Eristalis tenax							X	X			
Syrphidae	Eristlis aenea							X				X
Syrphidae	Eupeodes volucris				X							
Syrphidae	Syritta pipiens							X				
Syrphidae	Volucella mexicana						X	X	X			
Tabanidae	Tabanus punctifer	X						X	X		X	
Tachinidae	Archytas apicifer								X			
Tachinidae	Gymnosoma fuliginosum				X		X		X			
Tachinidae	Peleteria ?								X			
Therividae	Thereva semitaria	X										
Hymenoptera												
Family	Species Area	1	2	2	4	5	e	0	0	10	11	10
Anthophoridae	Anthophora urbana	1	2	3	4	э	6	8 v	9	10	11	12 v
Anthophoridae Anthophoridae	Aninopnora urvana Diadasia				v			X				X
Anthophoridae Anthophoridae	Melissodes				X		v	v				
Anthophoridae Anthophoridae	Nomada		v		v		X	X				
Anthophoridae	romaaa		X		X							

Andrenidae	Nomadopsis								X			
Apidae	Apis mellifera	X	X	X	X	X	X	X	X	X	X	X
Formicidae	Iridomyrmex humilis	X						X		X		X
Formicidae	Liometopum							X				
Formicidae	Pogonomyrmex californicus	X	х	X	X	X	X	X	X	X	X	X
Halictidae	Agapostemon	X			X	X		X	X	X	X	X
Megachilidae	Megachile							X				X
Mutilidae	Dasymutilla californica	X						X	X	X		
Mutilidae	Dasymutilla coccineohirta							X				
Mutilidae	Dasymutilla sackeni							X				
Pompilidae	Ageniella				X							
Pompilidae	Pepsis chrysothemis				X		X	X	X	X	X	
Pompilidae	Pepsis thysbe							X				
Pompilidae	unidentified				X				X			
Scoliidae	Campsomeris tolteca				X			X				
Scoliidae	Trielis alcione				X							
Sphecidae	Ammophila		X									
Sphecidae	Ammophila aberti	X			X		X	X	X	X	X	X
Sphecidae	Ammophila azteca				X		X		X	X		
Sphecidae	Bembis melanaspsis				X				х	X	X	X
Sphecidae	Bembix americana	X	х		X	X	X	X	X	X	X	X
Sphecidae	Bembix melenopsis		X									
Sphecidae	Bicyrtes ventralis				X			X				
Sphecidae	cerceris							X				
Sphecidae	Cerceris								X			
Sphecidae	Cerceris femorrumbrum				X		X					
Sphecidae	Cerceris femurrubrum							X	X			X
Sphecidae	Cerceris sextoides						X					
Sphecidae	Chlorion aerarium	X			X			X	X	X		X
Sphecidae	Hapalomellinus				X				X			
Sphecidae	Hoplisoides diversus				X				X			
Sphecidae	Liris				X							
Sphecidae	Philanthus multimaculatus	X	X		X	X	X	X	X	X	X	
Sphecidae	Philanthus ventilabris		X									
Sphecidae	Prionyx foxi	X	X		X		X	X	X	X	X	X
Sphecidae	Prionyx thomae	X						X			X	X
Sphecidae	Scellphron caementarium	X			X	X	X	X	X	X	X	X
Sphecidae	Tachysphex				X							
Sphecidae	Tachysphex						X					
Sphecidae	Tachysphex						X					
Sphecidae	Tachysphex											X
Sphecidae	Taschytes elongatus	X			X		X	X	X	X		
Sphecidae	unidentified							X	X	X	X	
Sphecidae	unidentified							X				
Tiphiidae	Myzinum maculatum				X		X					
Vespidae	Eumenes bollii							X				
Vespidae	Eumenes crucifera				X							
Vespidae	Euodynerus annulatum				X			X	X	X		
Vespidae	Polistes apachus	X			X		X	X	X	X	X	X
Vespidae	Polistes dorsalis							X				

Vespidae Vespidae Vespidae	Polistes exclam Polistes fuscatu Xylocopa veripi	S				x x			X X X	X	x		x
Andrenidae	Nomadopsis									X			
Neuroptera Family Mymerliontidae	Species	Area	1 x	2 x	3 x	4 x	5 X	6 x	8 x	9 x	10 x	11 x	12 X
Coleoptera													
Family	Species	Area	1	2	3	4	5	6	8	9	10	11	12
Chrysomelidae	Diabrotica balte	ata							X				
Chrysomelidae	Diabrotica unede	ecimpunctata						X					
Chrysomelidae	Lema trilineata								X				
Coccinellidae	Hippodamia con	vergens							X				
Meloidae	Nemognatha luri	ida apicalis								X			
Scarabaeidae	Cotinus texana		X	X	X	X	X	X	X	X	X	X	X
Scarabaeidae	Polyphylla decim	ılineata								X			
Tenebrionidae	Elodes gracilis		X					X					
Lepidoptera													
Family	Species	Area	1	2	3	4	5	6	8	9	10	11	12
Danaidae	Danaus gillip	ous							X				
Danaidae	Danaus plexij	ppus											
									X				
Hesperiidae	Hylephila phy		X	X		X	X	X	X X	X		X	X
Hesperiidae	Lerodia eufal	'a	X	X		X	X	X		X	x	X	X
Hesperiidae Hesperiidae	Lerodia eufal Pyrgus albeso	la cens	X	X		X	X	x x		X	x x	X	x x
Hesperiidae Hesperiidae Lycaenidae	Lerodia eufal Pyrgus albeso Atlides halesu	la cens us	X	x		X	X		X	X		X	
Hesperiidae Hesperiidae Lycaenidae Lycaenidae	Lerodia eufal Pyrgus albeso Atlides haleso Brephidium e	a cens us xilis	X	X		X	X		x x	x x		x	
Hesperiidae Hesperiidae Lycaenidae Lycaenidae Lycaenidae	Lerodia eufal Pyrgus albeso Atlides haleso Brephidium e Leptotes mari	a cens us xilis ina	X	X		X	x	x	x x x			X	
Hesperiidae Hesperiidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae	Lerodia eufal Pyrgus albesc Atlides halesi Brephidium e Leptotes mari Plebejus acm	a cens is xilis ina on	X	X		X	X	x	x x x x			X	
Hesperiidae Hesperiidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae	Lerodia eufal Pyrgus albesc Atlides halesc Brephidium e Leptotes mari Plebejus acmo Strymon melii	a cens us xilis ina on nus	x x	X		x x	X	x	x x x x			x	
Hesperiidae Hesperiidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Noctuidae	Lerodia eufal Pyrgus albesc Atlides halesc Brephidium e Leptotes mari Plebejus acm Strymon melic Schinia sexpla	a cens us xilis ina on nus agiata		X			X	x x	X X X X X			x	
Hesperiidae Hesperiidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Noctuidae Nymphalidae	Lerodia eufal Pyrgus albeso Atlides halesi Brephidium e Leptotes mari Plebejus acm Strymon melii Schinia sexplo Agraulis vani	a cens ss xilis ina on nus agiata illae	X	X			X	x x	X X X X X			x	
Hesperiidae Hesperiidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Lycaenidae Noctuidae Nymphalidae Nymphalidae	Lerodia eufal Pyrgus albesc Atlides halest Brephidium e Leptotes mari Plebejus acm Strymon melit Schinia sexpla Agraulis vani Junonia coen	a cens ss xilis ina on nus agiata llae	x x	X			x	x x x	X X X X X X			x	х
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Heteroptera												
Family	Species Area	1	2	3	4	5	6	8	9	10	11	12
Lygaeidae	Lygaeus kalmii				X		X	X				
Nabidae	Nabis						X	X	X		X	X
Pentatomidae	Chlorochroa uhleri	X			X			X	X	X	X	X
Rhopalidae	Arhyssus							X				
•	•											
Orthoptera	C											
Family	Species Area	1	2	3	4	5	6	8	9	10	11	12
Acrididae	Derotmema saussuraenum	X	X			X	X					
Acrididae	Melanoplus	X			X		X	X				
Acrididae	Melanoplus					X						
Acrididae	Melanoplus yarrowii							X				
Acrididae	Psoloessa thamnogaea						X					
Acrididae	Schistocerca							X				
Acrididae	Schistocerca nitens	X			X		X	X				
Acrididae	Trimerotropis californica	X	X		X	X	X	X	X		X	X
Acrididae	Trimerotropis fontana				X		X	X				
Acrididae	Trimerotropis pallidipennis	X	X	X	X	X	X	X	X	X	X	X
Acrididae								X				
Gryllidae	Oecanthus							X				
Tettigoniidae	Microcentrum rhombifoliun	1					X					
Mantodea												
Mantodea Family	Species Area	1	2	3	4	5	6	8	9	10	11	12
	Species Area <i>Iris oratoria</i>	1 x	2	3	4 x	5 X	6 x	8 X	9 X	10 x	11	12 x
Family	-		2	3							11	
Family Mantidae	-		2	3							11	
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Family Mantidae Odonata Family	Iris oratoria Species Area	x 1	2	3		x 5		x 8	x 9	x 10	11	x 12
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Family Mantidae Odonata Family Aeshnidae Aeshnidae	Iris oratoria Species Area Aeshna multicolor Anax junius	x 1	2		X	x 5	X	8 X X	x 9	x 10		x 12
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Delhi Sands Flower-loving Fly Habitat Assessment and Survey Report Appendix A

Libellulidae	Tramea lacerata	X		X	X	X	X	X
Libellulidae	Tramea onusta	X	X	x	X	X	X	x

Appendix B: Vicinity Maps and Aerial Overviews

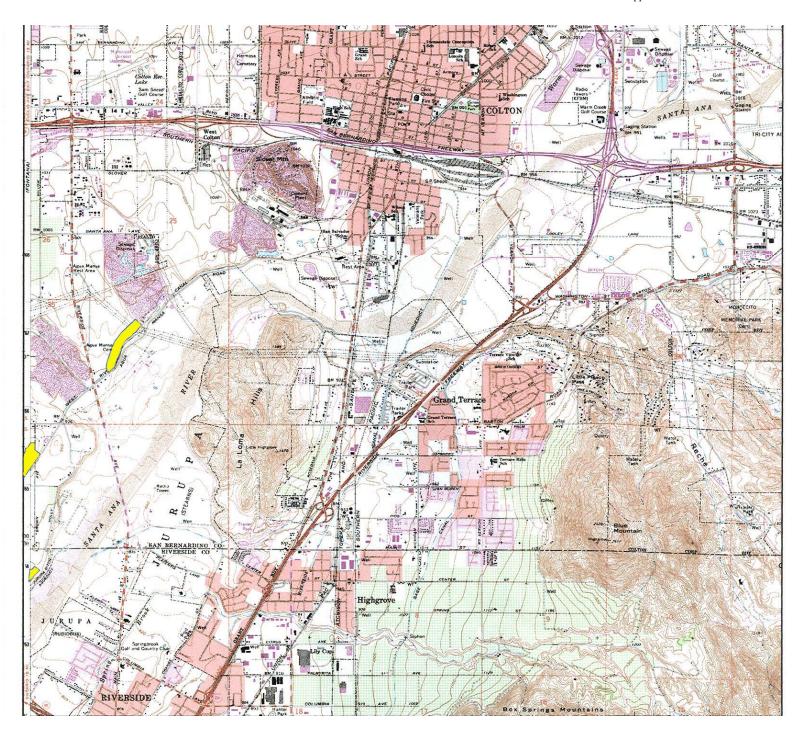


Figure 1. General vicinity of survey Areas 1, 2 and 5, San Bernardino South, California USGS 7.5" quadrangle at 50%. The sites are outlined in blue and highlighted in yellow.

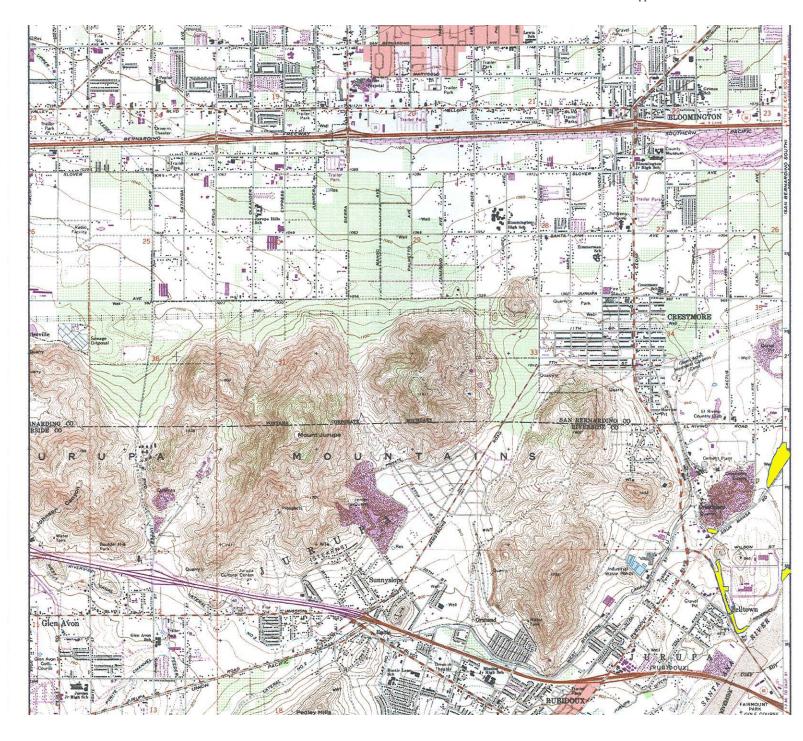


Figure 2. General vicinity of survey Areas 2 through 6, Fontana, California USGS 7.5" quadrangle at 50%. The sites are outlined in blue and highlighted in yellow.

= 1 mile

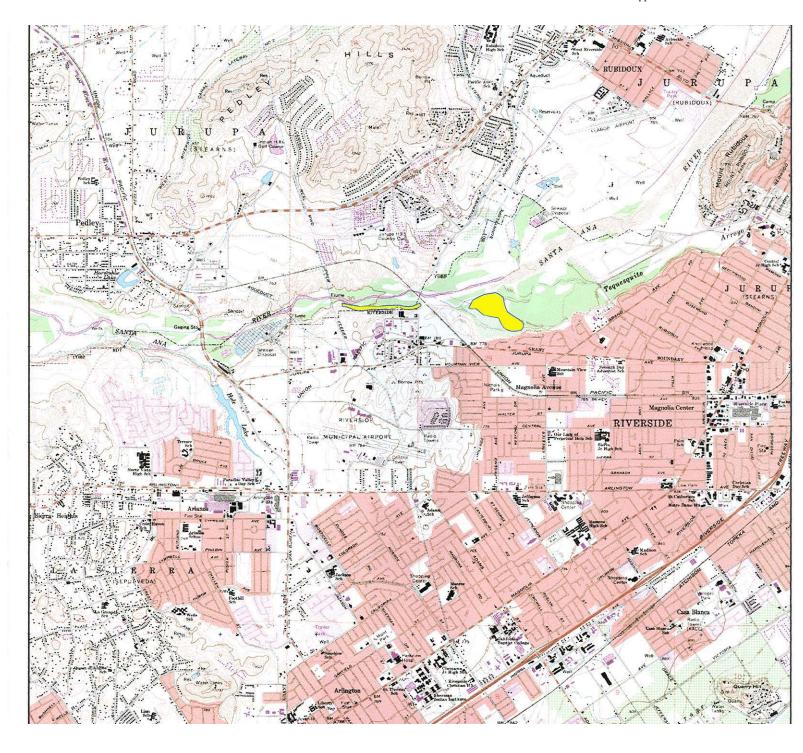


Figure 3. General vicinity of survey Areas 7 and 8, Riverside West, California USGS 7.5" quadrangle at 50%. The sites are outlined in blue and highlighted in yellow.

- = 1 mile

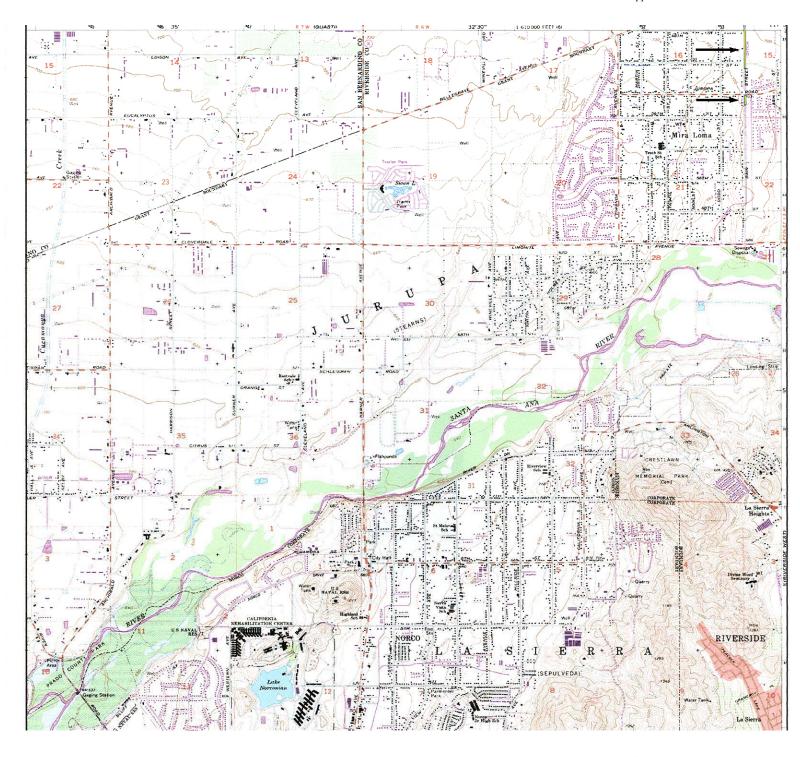
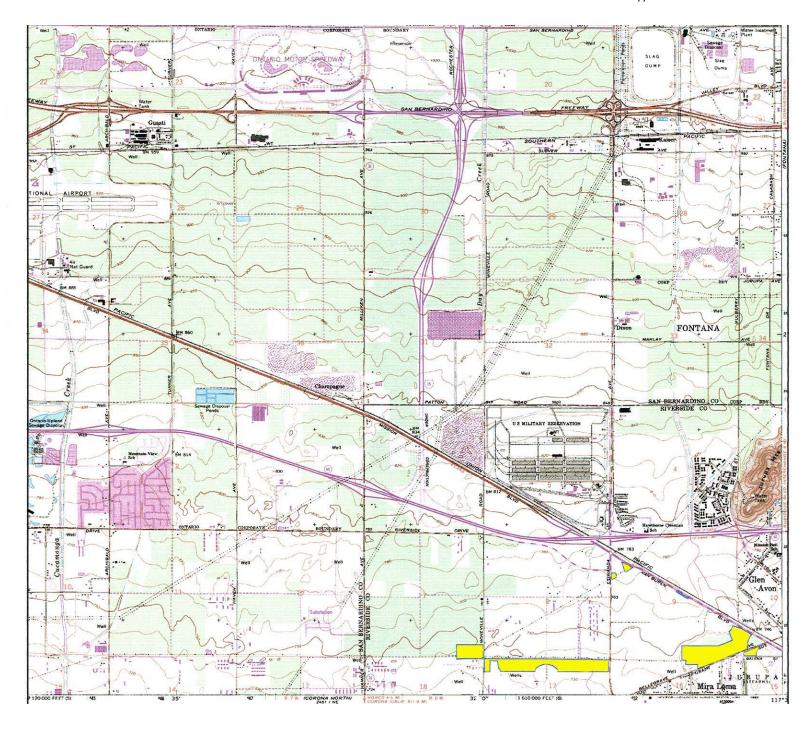


Figure 4. General vicinity of survey Area 12 (southern portion), Corona North, California USGS 7.5" quadrangle at 50%. The survey site (arrow) is outlined in blue and highlighted in yellow.



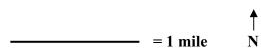


Figure 5. General vicinity of survey Areas 9 through 12 (northern portion), Guasti, California USGS 7.5" quadrangle at 50%. The sites are outlined in blue and highlighted in yellow.

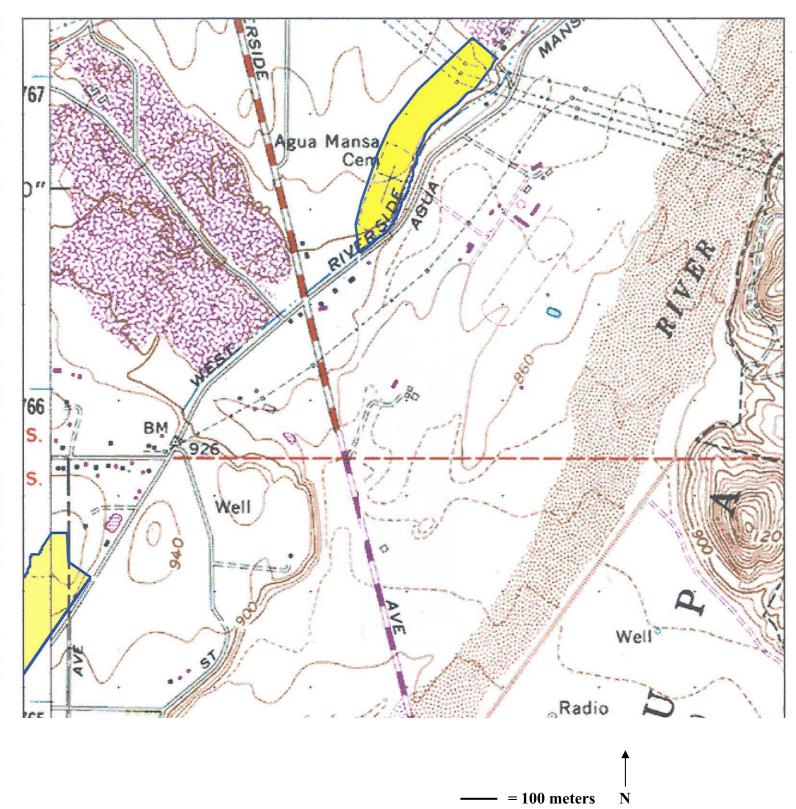


Figure 6. General vicinity of survey Areas 1 and 2, San Bernardino South, California USGS 7.5" quadrangle at 200%. The sites are outlined in blue and highlighted in yellow.

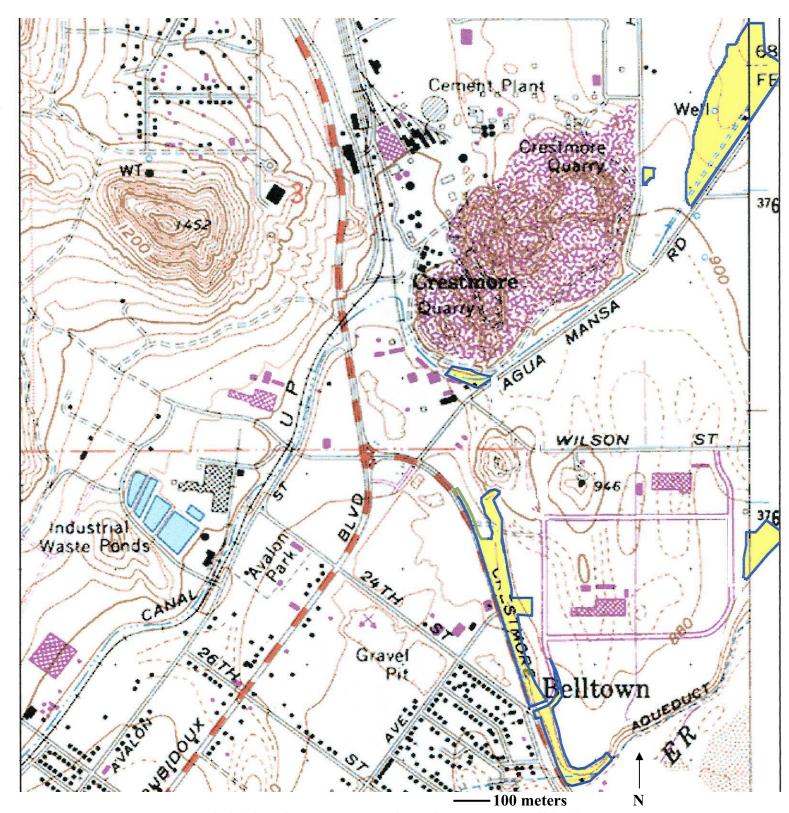
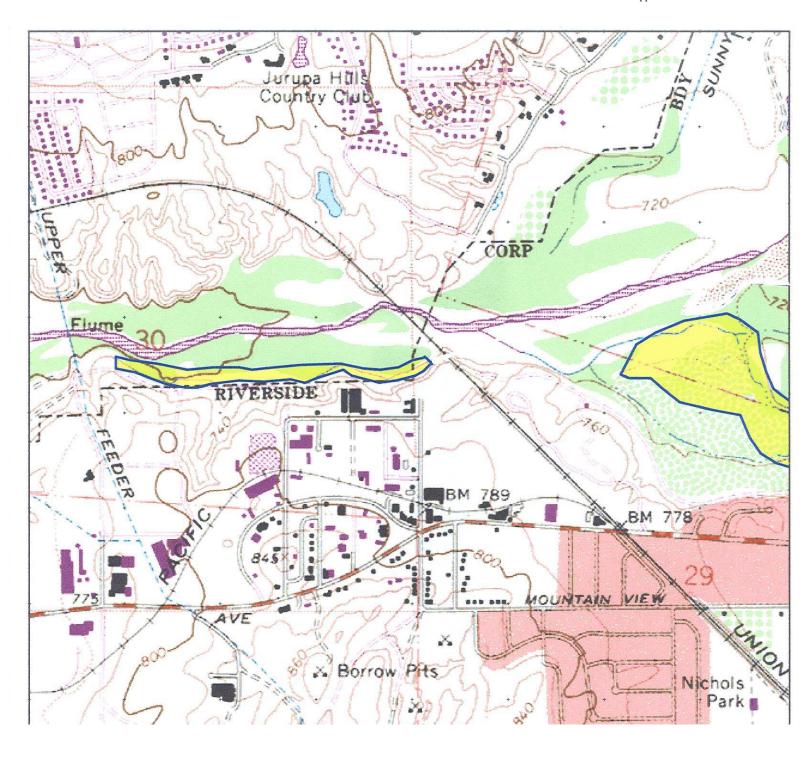


Figure 7. General vicinity of survey Areas 2 through 6, Fontana, California USGS 7.5" quadrangle at 200%. The sites are outlined in blue and highlighted in yellow.



= 100 meters N

Figure 8. General vicinity of survey Areas 7 and 8 (7 only assessed), Riverside West,
USGS 7.5" quadrangle at 200%. The sites are outlined in blue and highlighted in yellow.



= 100 meters N

Figure 9. General vicinity of survey Area 12 (southern portion), Corona North,

California USGS 7.5" quadrangle at 200%. The site is outlined in blue and highlighted in yellow.

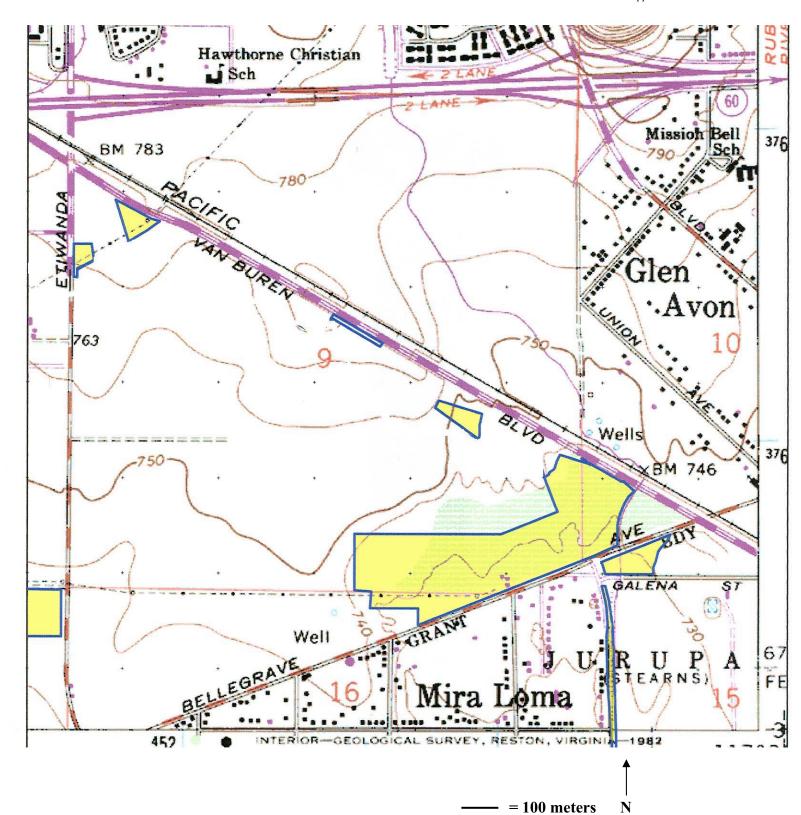


Figure 10. General vicinity of survey Areas 9 through 10 (eastern end) and 11 through 12 (northern portion), Guasti, California USGS 7.5" quadrangle at 200%. The sites are outlined in blue and highlighted in yellow.

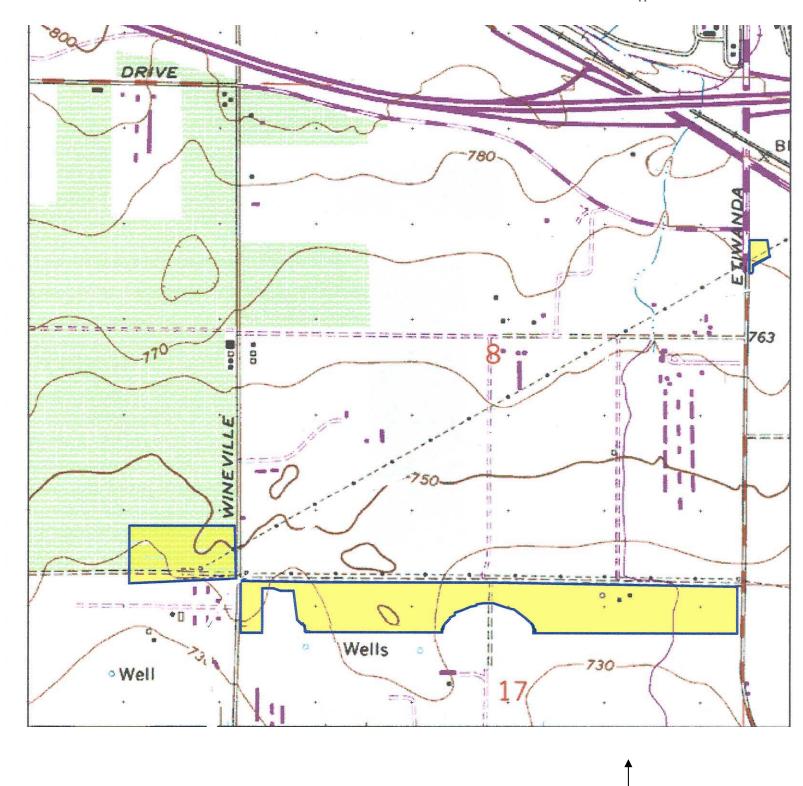
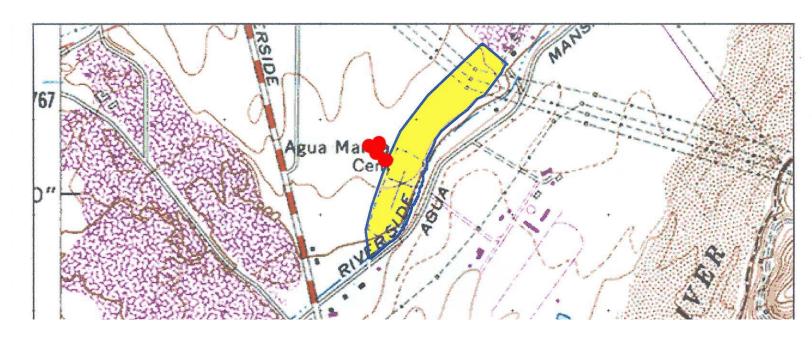
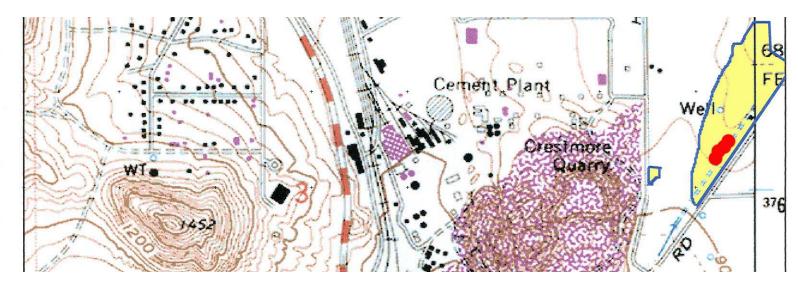


Figure 11. General vicinity of survey Areas 10 and 11, Guasti, California USGS 7.5" quadrangle at 200%. The site are outlined in blue and highlighted in yellow.

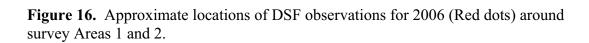
- = 100 meters



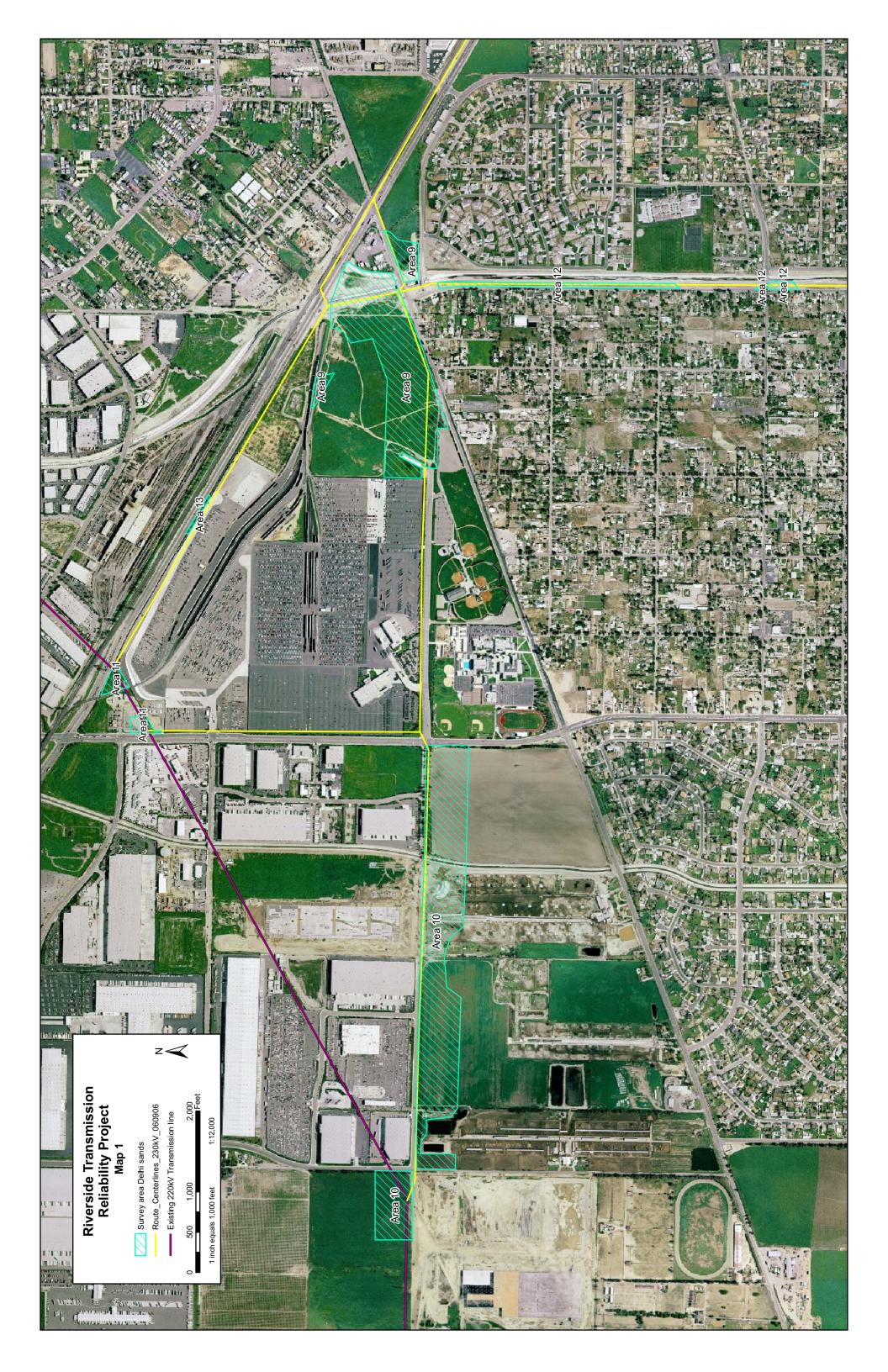
Survey Area 1



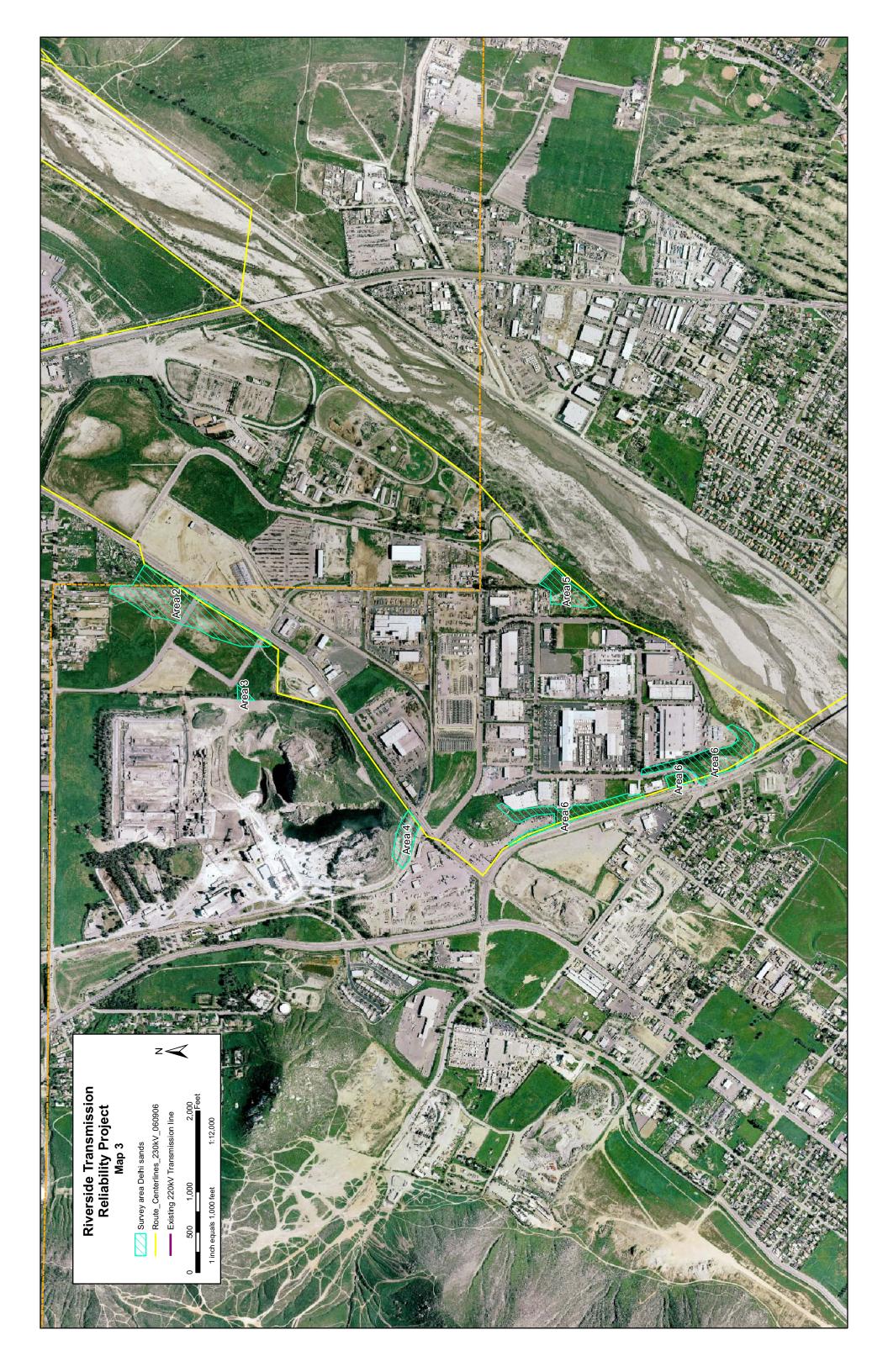
Survey Area 2

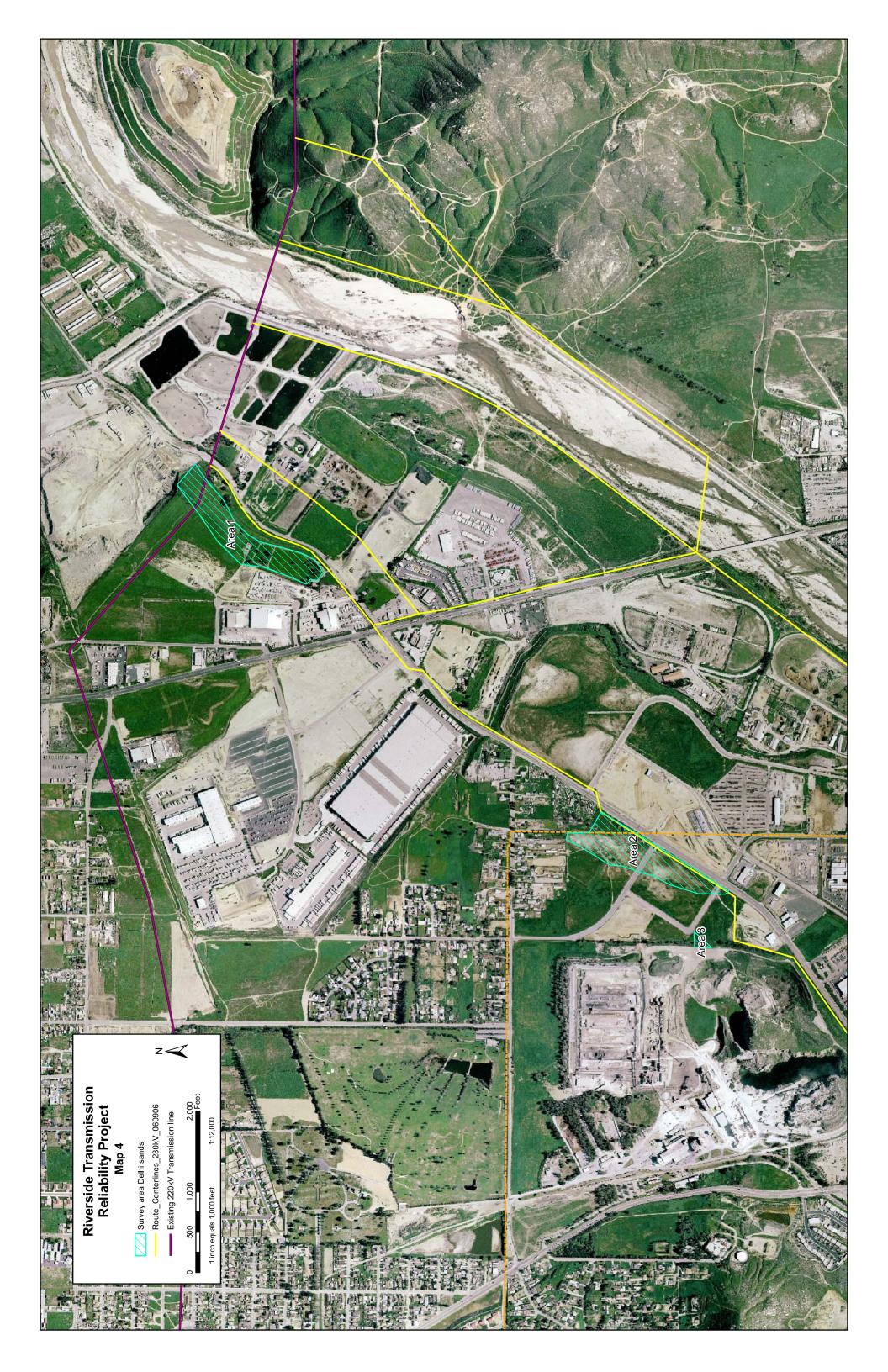












Appendix C: Representative Photographs



Figure 16. Photograph of mating pair of DSF observed on the northwestern edge of Area 1. Male DSF was followed for several minutes until observed to discover the female.



Figure 17. Photograph of the northwestern edge of the Agua Mansa Cemetery on survey Area 1, showing location of DSF observations (location is west of the cemetery). Cemetery fence is seen in the background (left).



Figure 18. Photograph of the southern edge of the Agua Mansa Cemetery (part of survey Area 1). Note abundance of clean exposed sands and *Croton californica*.



Figure 19. Photograph of extremely high quality DSF habitat on the northern portion of survey Area 2. Survey on this area was abandoned when it was discovered that an HCP has been approved for the site.



Figure 20. Photograph of survey Area 4, showing exposed sands on the cut banks surrounding the rail tracks. Note the abundance of coastal sage scrub indicating lack of disturbance at least on these substrates.



Figure 21. Photograph of the northern portion of survey Area 6, showing exposed sands on the cut banks and at the base of the hill. Coastal sage scrub indicates lack of disturbance on these substrates, resulting in high abundance and diversity of insect species associated with DSF habitats.



Figure 22. Photograph of survey Area 8 (lower slopes and foot of hill) on the southern edge of the Santa Ana River. This area has abundant alluvial sands on the flat areas (along with scattered trees and shrubs), but also has wind blown sands on the lower slopes. Coastal sage scrub and abundant sands associated insects are found here.



Figure 23. Photograph of the Area 7 (not surveyed) located beyond the bend in the river. This area supports dense riparian woodland on wet, flooded river bottom. View looks east from the railway bridge over the Santa Ana River.,



Figure 24. Photograph of the western portion of survey Area 11, showing disturbed conditions next to a parking lot. This weedy site featured very low insect diversity.



Figure 25. Photograph of the northern portion of survey Area 12, showing exposed sands along an equestrian trail. Conditions on this site range from low (disturbed sands at left for example) to moderate (such as vegetated areas as seen on the right).

Appendix D: Field Notes

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Chrysidids Mutilids Scoliids
MymerleontidsOther insects of note
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	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebr	ates

VC1	ission Reliability
Biologists Nathan Moorkates & Mike Wilcox	
Weather: Temp 78°-~87° Wind 0-2.5 mg4 Cloud cover 0% Rain 6 Comments:	_
	-
Evidence of Sheep grazing, majority of site appears unsuitable for DSFL break of solid Kochia, silty/gravelly/rocky soils, not much loose surt	ice .
send) Active Agriculture, Lairy farm	
	·
	·
Biological elements: Rhaphiomidas terminatus?timesexnumbers	
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids	
Chrysidids Mutilids Scoliids	
Mymerleontids Other insects of note Polistes apachus	' ' ·
Paganamyernex Pyrque communis, Fiery skipper, Efferia, Stenepagen	
Trimerotropis, Pygmy Blue, Villa / Anthrax, Musca domestica, Penta	temidae
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera _ Camissonia Eriastrum Others: Conyes canadassis , Kockis scapacis (dominant)	= =:
Vertebrates	
MODO, BLPH, RTHA, HOSP, GAKI, BASW, WILL, CAGS, NOMO, KIL	
Sylvilagus audubonii, Scelaparus occidentalis, BRBL, SAPH	 :

ologists	
eather: Te	mp81-99 Wind Cloud cover Rain
omments:	9 10:00 81 7-
	ments: iomidas terminatus?timesexnumbers
Rhaph	iomidas terminatus ?time sex numbers arthropods (general) Bombyliids Asilids
Rhaph	
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note

iles the	10 to 12:50 Job RTRP	
ologists	MYD	
eather: Ter	mp 31-93 Wind 2-5 Cloud cover Rain	
omments:	11,10-10:20	
0.1	1) 10 20 - 10:49	
13	12:10-12:46- aprocesa sp. 7 burn	ow
10	12:10-12:46-aprocesa	TW
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iological ele	ments:	
	ments: siomidas terminatus ?time sex numbers	
Rhaph	iomidas terminatus ?time sexnumbers	
Rhaph	arthropods (general) Bombyliids Asilids	
Rhaph	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids	
Rhaph	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids	
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Rhaph	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids	
Rhaph	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Central part	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:	
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:	

Date 7/07/0	Time_	10:00	to 11:20		Job	
Miles 32					Parcel 10	
Biologists Na	than Moorhatel	1 Mike W	ilcox			
Weather: Ter	mp <u>86°F - 88°</u> F	Wind <u>o-</u>	2 mps C	loud cover _0	% Rain Ø	_
Comments:						
						_
Other a	arthropods (ger	neral) H	Bombyliids	Asili	ds 🗸	
	Mydids	_ Apioce	rids	Sphecid	ls	
	Chrysidids		Mutilids_	/Sco	liids	
	Ammophila,	Pontia	protobice,	Chlorochron,	te <u>Paganomyrmex, Ben</u> Diabratica undecempua datucaptila, Eristalis,	c forta
New York	Trimerotropis pa	Hidipennis,	Efferia		ogonum fasciculatum	
Plants:	Crotonthe	Telegra	iph weed _	Erio	ogonum fasciculatum	_
	Camissonia _				Oenothera _	_
					-	
Verteb	rates					
				, ,	celoporus occido, HOSP	
	MODO, BASW	,				

iologists	UN0			
eather: Te	mp Wind	Clo	ud cover	Rain
omments:				
Sit	13: 1/40-	1155		
	11: 1200 -	-12.20	1576	, , ,
iological ele Rhaph			sexnu	
Rhaph	ements: niomidas terminatus earthropods (general) Mydids Api	?time Bombyliids ocerids	sexnuAsilidsSphecids	mbers
Rhaph	ments: niomidas terminatus arthropods (general)	?time Bombyliids ocerids Mutilids	sexnuAsilidsSphecids Scoliids	mbers
Other	ements: siomidas terminatus earthropods (general) Mydids Api Chrysidids	Bombyliids ocerids Mutilids Other in egraph weed other Eri Eriastrum	Asilids Sphecids Scoliids Sects of note Eriogonum	mbers m fasciculatum

	8-06 Time 10:8 to 2:00 Job SCE
Miles 2234 Biologists	3167
Weather: Ter	mp92- Wind 2-3 Cloud cover O Rain 6
Comments:	10:32-10:50 Bombylithre & Psilibae 11:08-11:38, 3 specieng Bombylithre, Sphere. 11:31-12:13 2 Bomby likar, By Croton by RR Hacks
	1:20-2:10, 2 perla splacidae, Barrbylithe asilih
· ·	
Other a	rthropods (general) Bombyliids V Asilids V
	Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
4	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebr	ates Jots Sceloporis occidentalis Tack Rabbit.

Date 7/9/06 Miles 157084 Biologists	Time 12 # to 12 6 6N Job SC/8 -085 / 14 - 2 = 9 9 4 + 12 157099 4	
Weather: Temp /oc Wind o- S Cloud cover a Rain 6		
Biological elements: **Rhaphiomidas**	terminatus?time sexnumbers	
Other arthropod	ds (general) Bombyliids Asilids	
Mydids Chrysid Mymerl	ds (general) Bombyliids Asilids Apiocerids Sphecids ids Mutilids Scoliids eontids Other insects of note	
Camisso	Telegraph weed Eriogonum fasciculatum um thurberi other Eriogonum Oenothera nia Eriastrum	
Vertebrates		
-		

Date 11-9-00 Miles 223	Time 10:00 amto 2:00 pm Job SCE 10
Biologists A	VD
Weather: Temp	94-05 Cloud cover O Rain O
Comments:	- Hopeico 5 species of Spheribae
- Veg	pible sp. / Asilis in Razonomymax sest
¥	
Biological elem Rhaphio	ents: midas terminatus ?time sex numbers
Other art	hropods (general) Bombyliids Asilids
N	fydids Apiocerids Sphecids hrysidids Mutilids Scoliids
N	symerleontids Other insects of note Cabbage While.
_	batterflies, tran Hairstraks
E	Croton Telegraph weed Eriogonum fasciculatum riogonum thurberi other Eriogonum Oenothera
	amissonia Eriastrum thers:
Votabas	· · · · · · · · · · · · · · · · · · ·
Vertebra	ground squirels Sceloporus occidentalis. Side blathod lizard, corron soil poblit.

Date 7/10/	os Time 13-01 to 14-10 Job SCOE 8
Biologists _	Karo
Weather: T	emp/02 Wind 0-2 Cloud cover Rain 0
Comments:	
Rhap	hiomidas terminatus?time sex numbers
	H.
Oal	and the state of t
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids
- N	Chrysidids Mutilids Scoliids Other insects of note Shedge - id
Plants	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertel	
	· · · · · · · · · · · · · · · · · · ·

Miles _ 3	0-06 Time (0:00 to 2:00 Job SCE
Biologists	
Weather:	Temp 94-104 Wind 6 Cloud cover 6 Rain 0
Comments	
	10:00-11:00 apioceros pleide Sop Asilida [1:15-12:40, promeros pp. respite, Ipucido. 3. 12:42-12:48 Hi 12:50-1:10 Promerous pair mating 1:12-1:42 Komeloss people down the hill phave. ramshackle houses and dogs, Vospids. 6: 1:44-2:00 Groton californica on hillside. grespidae of.
	elements: aphiomidas terminatus?timesexnumbers er arthropods (general) BombyliidsAsilids MydidsApioceridsSphecids ChrysididsMutilidsScoliids MymerleontidsOther insects of note
Plan	ts: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum
Vert	others: ebrates Sile blotched l'zards, many julyaniles. ground Sarvirels.
	lager head Shrike on 5

	06 Time 10:00 to 2600 Job SLE
Miles 2238 Biologists /	1VD
Weather: Ter	mp 93-102 Wind Calm-10 Cloud cover O Rain O
Comments:	Mysissa Pseudonomeneura spr Benline and Chrysiss spr Bonlytuble of 2 Aglidae Spr
Biological ele Rhaph	ments: iomidas terminatus ?time sex numbers
Other a	Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note .
Plants	Control Tolerand World Friends Control
· mator	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:

Date: 7/11/06

Time: 10:00-14:00

Job: Plot #10, DSFLF absences/presence

survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Comments:

Weather: (General) Temp:86.7-101.5 Wind 1.5-2.9 Cloud cover: 0% Rain 0

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	0	<u>clear</u> patchy overcast drizzle shower	1.5ave.	86.7 F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 14:00	0	<u>clear</u> patchy overcast drizzle shower	2.9 SW	101.5

		NONI	3	
Chrysidids X Coleopetera	Apiocerids Vespidae Libellulidae	Bombyliids X X Sphecids X Coccinellidae Nymphaidae Pieridae X	Pompillids Mutillidae Lycaenidae	Hesperidae
Other insects of pantheridus)	f note: Swallo	wtail Butterfly (Yellow), Myd	idedae (Neomydias
Camissonia	rberix _x E	veedx _other Eriogonu riastrum	mC	Denothera

Date VII-D-	06 Time 10:30 to 2:00 Job SCE
Biologists/	1 VD
Weather: Ten	np 97-105Wind 2-4 Cloud cover © Rain O
Comments: 10:24 10 10:24 10:34 11:34 12:41 13 - 12	The perimeter Dembres of N ride. 19-1388 Common Brown Chilis. 1,18: Burrowing our colonies along burn E of the fence. 145 -2:00 O ground squirell burnous.
	A 7. 12 40
Biological elen	nents: comidas terminatus?time sexnumbers
Other a	rthropods (general) Bombyliids Asilids
	Mydids Apiocerids Sphecids
	Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
Plants:	Croton Telegraph weed Eriogonum fasciculatum
	Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebr	ates

Date: 7/12/06

Time: 10:00-14:00

Job :Plot # 9, DSFLF absences/presence

survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Weather: (General) Temp 86.1-100.7 Wind: 1.3-2.7 Cloud cover: 0 Rain: 0

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	0	<u>clear</u> patchy overcast drizzle shower	1.3 ave.	86.1 F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 14:00	0	<u>clear</u> patchy overcast drizzle shower	2.7 SW	100.7

	NONE	
her arthroj	oods (general) Bombyliidsx Asilidsx	
Mydi	ds Apiocerids x Sphecids x	
Pomp	villids Scoliids Chrysidids x	
Vesp	dae X Coccinellidae X Mutillidae X Hesperidae X Coleopetera	
Libel	lulidae X Nymphaidae X Lycaenidae X Hesperidae	
	idae X	
	insects of note:	
See r	photo attached, Marine Blue Butterfly (Leptotes mariana)	
antas C	T. 1 1 1 T. 1 T. 1	
Enion	ton Telegraph weedx Eriogonum fasciculatum	
Cami	onum thurberi _ x other Eriogonum Oenothera	
Othor	ssoniax Eriastrum	
Ouici	s:	
-		
tehrates: C	otton tail rabbit, CA. Squirrel, Mournig Dove, W. Fence lizard, Red Tail H	f1-
mon Crou	W. Kingbird, Killdeer,	awk,
anon Crov	, w. Kingona, Kindeer,	

Date: 7/13/06

Time: 10:00-14:00

Job :Plot # 10 E and W, DSFLF

absences/presence survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Comments:

Weather: (General) Temp: 82.7 - 103.2 Wind .8 - 4.4 Ave___ Cloud cover 0 Rain: 0

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	0	<u>clear</u> patchy overcast drizzle shower	.8 SW Ave. 2.4 SW Max.	82.7 F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 14:00	0	<u>clear</u> patchy overcast drizzle shower	4.4 SW Ave 5.4 SW Max.	103.2

	NONE
er arthropods (general) Mydids Apiocerids X Pompillids Scoliids Vespidae X Coccinellidae Libellulidae X Nymphaidae X	Sphecids X Chrysidids X Mutillidae Hesperidae X Coleopetera
Pyralidae X Mydidadae X Pentatomidae X Nymphalidae Other insects of note:	Noctuidae X Acrididae X X
Eriogonum thurberix oth	d x Eriogonum fasciculatum ner Eriogonum Oenothera strum

Date 7/14/c Miles Biologists	76 Time 10;00 to 11:40 Job_SCE AVD
Weather: Ter	mp90-100 Wind O- Cloud cover 15% Rain O
Comments:	6 N - 10:00-10:40 New Spherid pp. Mutilidae, - of , Scaliff pp. Asilis minnin of pryonix foxi termis on Graton. 1-10:58-11:40 4 species of Apheridae Pelasilian, Vespids
Biological eler Rhaph	ments: iomidas terminatus ?time sex numbers
Other a	Arthropods (general) Bombyliids Asilids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:

Delhi sand	s flower	-loving	fly -	General	Form
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Date7/14/06	Time	_10:00-2:00	Job	Plot # 9
Surveyor _Ellen Schafhause	r Su	rvey :Partner(s) N	A	
Mileage on site _0				
Weather: (General) Tem: 9 Rain: 0	0.0 –107.0	Wind: 2.4-1.6	Cloud cover: 5	0% cirrus, smoke

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	50%	clear <u>patchy</u> overcast drizzle shower	2.4 Average	90.0
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 2:00	50%	clear <u>patchy</u> overcast drizzle shower	1.6 Average	107.0

sex numbers
AsilidsXhecidsX
Chrysidids X
Eriogonum fasciculatum
Oenothera

Vertebrates: Vertebrates: Annas Humming bird, cottontail rabbit, CA. squirrel, mournig dove, W. fence lizard, red tail hawk, common crow, W. kingbird, killdeer, starling, mocking bird, Black Phoebe, house sparrow, starling, pegion, <u>four Burrowing owl</u>

Date TIT-/S Miles 22: Biologists	7-06 Time 10:00 to 2:00 Job XE
Weather: Ter	np 95-108 Wind 2-6 Cloud cover 8 Rain 6
Comments: (55-10:20-10:20 Black and Mitte Mutilis Q 0:28-10:58 Chrulionika of Vapids, Onthion of 11:27-11:27 Schiller on Crisgmum foriguedolumn x Gironyx foxicus parteri alsof Spherids sp 11:36-11:40 Bombylishs :41-1:00 Promerus sp., large Spherid sp. :55-2:00 - Sphering, Asilian, Pyronyx spp.
Biological eler	ments: iomidas terminatus ?time sexnumbers
Other a	rthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
Plants:	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebi	

Date VII-16-06 Miles 2240 Biologists AU	
Weather: Temp_	92- Wind Calm 2 Cloud cover 40% 30 Rain O
Commenter	block and red Pyrons Sp.
Biological elemen	idas terminatus ?time sex numbers
Chi	ropods (general) Bombyliids Asilids dids Apiocerids Sphecids rysidids Scoliids merleontids Other insects of note
Eric Can	oton Telegraph weed Eriogonum fasciculatum ogonum thurberi other Eriogonum Oenothera nissonia Eriastrum ers:
Vertebrates	

Date 17-/7-2	Time 10500 to 2.00 Job $5CE$
Miles 32	1046
Biologists	1-8
Weather: Ten	1971-104 Wind Wind Cloud cover 20%-801
Comments:	1-10100-11:00 Redard blok 3 mutilit
2- 11:07	wer portion of 2 was recorly diself
4-1	2:42-1:09 a varioty of Bombylie spp. Sollibae,
6-1	:43-2:00 - began to get quite cloudy.
	·
Biological elen Rhaphi	nents: omidas terminatus ?timesex numbers
Other ar	thropods (general) Bombyliids Asilids
	Mydids Apiocerids Sphecids
	Chrysidids Mutilids / Scoliids
1	MymerleontidsOther insects of note
DI	Control Discontinuity of the Control
Plants:	Croton Telegraph weed Eriogonum fasciculatum
1	Eriogonum thurberi other Eriogonum Oenothera
	Camissonia Eriastrum
-	Others:
Vertebra	ites .
7 01 1001 0	
-	•
×-	·

Miles 22 407 0 - 2041 Biologists AV Weather: Temp 94-98 Wind 1-10 Cloud cover Rain Comments: Description Des	Date 18-18-	
Comments: Sillar Valigue Del plice were alrendom		
Comments: Daillos Palvigus Del plices were alumbon!		
Distribution Conting	Weather: Ten	np 94-98 Wind 1-10 Cloud cover O Rain O
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:	Comments:	//
Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:		
Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:		Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids
Vertebrates		Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum
•	Vertebr	*

ate 7/19	
iologists	120AD
eather: T	emp 100 * Wind 0-2 Cloud cover ~ Rain *
omments:	
24 (4) (4)	
5 8 7	
Rhapi	ements: hiomidas terminatus ?time sexnumbers
	hiomidas terminatus?time sex numbers
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Scoliids Accliids Scoliids

Date <u>VII-19-06</u> Time <u>10:45</u> to <u>84-50</u> Miles 224/25 Biologists <u>AVD</u>
Weather: Temp 95 - Wind idm - Cloud cover O Rain O
Comments: a-10:45- 1:10 Pyronyx foxi, Parkeri, Mulillidge. a-10:45- 1:00 Axial, various spheids.
Biological elements: Rhaphiomidas terminatus?time sex numbers
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Sphecids Chrysidids Mutilids Scoliids Other insects of note
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebrates

Date: 7/19/06

Time: 10:00-14:00

Job :Plot # 9, DSFLF absences/presence

survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Weather: (General) Temp: slight humidity

Wind: increasing

Cloud cover:clear other than cirrus

Rain: 0

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	40% High Cirrus	clear <u>patchy</u> overcast drizzle shower	2.4 Max .6 Ave SW	87.7F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 14:00	50% High Cirrius	clear <u>patchy</u> overcast drizzle shower	6.2 Max 4.9 Ave SW	101.2F

	NONE
er arthropods (general) Bomby	rliidsxAsilidsx
Pompillids Scol	x Sphecids x liids Chrysidids
Pyralidae X Acrididae X	X Lycaenidae X Scrabedae X Bombylididae X
Other insects of note:	

Vertebrates: Cotton tail rabbit, CA. Squirrel, Mourning Dove, W. Fence lizard, Red Tail Hawk, common Crow, W. Kingbird, Killdeer, Burrowing Owl (4) Meadow lark, Pigeon, Gopher, Redtail hawk, Starling, Barn Swallow. Anna's Humming Bird,

Date: 7/20/06

Time: 10:00-14:00

Job :Plot #10 W, DSFLF absences/presence

survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Weather: (General) Wind: Cloud cover: Clear other than Cum Ninmbus build up Rain 0

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	10% Cum Nimbus E	<u>clear</u> patchy overcast drizzle shower	.9 Max .6 Ave	81.7 F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 14:00	40% Cum Nimbus N & E	<u>clear</u> patchy overcast drizzle shower	5.3 Max 3.2 Ave	96.4 F

Rhaphiomidas terminatus?	time	sex	numbers
	NONE		
Other arthropods (general) Mydids Apiocerids Z Chrysidids X VespidaeX Coleopetera Libellulidae Z Scarabade X Pyralidae X	X Sphecids X Coccinellidae X X Nymphaidae	Pompillids Mutillida Lycaenida	ae Hesperidae X
Other insects of note:			
Plants: Croton Telegraph w Eriogonum thurberix Camissonia x Er Others:	other Eriogonum _ iastrum _	0	

Vertebrates: Starling, House Sparrow, W. Kingbird, Mocking bird, W. Fence lizard, Cottontail rabbit, CA. Squirrel, Mourning Dove, Red Tail Hawk, common Crow, Black Pheobe, Killdeer, TV, Starling, Redwing Black bird, Sharp-shin hawk,

Date 7-21-08 Miles 224 Biologists A	6 Time 10:00 to 11-30 Job SCE 1825-224186
Weather: Tem	p92- Wind calm-5 Cloud cover O Rain 6
Comments:	N-10:00-10:40 Bembis, Polistes of. 10:54-11:30 Pyronyx foxi, fyronyx porteri. ence stand of Eriogonum What is sand endemine
Biological elem Rhaphic	nents: omidas terminatus ?time sex numbers
(thropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebra	ates

Date 7/21/06	2 Ti	me_1030	to12	00.	Job_10 W
Miles Biologists B	rian Dra	NU	*		
	mp 91, 3	Wind N	02.2/5.5	Cloud cover 2	Rain O
Comments:					
chbrion au	mary		ryllidge	/	
MUJUL do	mutical		seis mulli	fina	
SGraphan	dal	,	J; 11 W		
w conitor	Siliste	j	orcepidion	2 exilis	
_trimuoto	Pir				
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an thostor	:due/				
bembix to	mater				
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		/			
mantidee	1				
curis					
Other a	Mydids Chrysidids	Apioc	erids _ Mutilids_	SAsiliSphecidScoler insects of not	s iids
Plants:	Eriogonum Camissonia	ı thurberi a	other Eriastri	Eriogonum um	
Vertebi	rates modo	gran gran	Utw	basn	nV
	Utun	6620	1000		

Date: 7/21/06

Time: 10:00-14:00

Job :Plot # 9, DSFLF absences/presence

survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Weather: (General) Temp: Increasing general heat from previous days Wind: Stronger gusts

than usual Cloud cover: Clear other than high cirrus Rain: 0

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	20% High Cirrus	<u>clear</u> patchy overcast drizzle shower	3.6 Max 1.0 Ave SW	87.5F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 14:00	40% High Cirrius N&W	<u>clear</u> patchy overcast drizzle shower	9.0 Max 3.6 Ave SW	106.7F

	NONE
ther arthropods (gen	eral) Bombyliidsx Asilidsx
Mydids	_ Apiocerids x Sphecids x
Pompillids	Scoliids Chrysidids
Libellulidae V	Coccinellidae Mutillidae X Hesperidae X Coleopetera
Libellulidae X	Nymphaidae X Lycaenidae X Scrabedae X Bombylididae Acrididae X Asthenidae X

Vertebrates: Shrike, Cotton tail rabbit, CA. Squirrel, Mourning Dove, W. Fence lizard, Red Tail Hawk, common Crow, W. Kingbird, Killdeer, Pigeon, Redtail hawk, Starling, Barn Swallow. Annas Humming Bird,				
Comments:				

Date 7-22-06 Time 10:00 to 2:00 Miles 22-4228 Biologists AVD
Weather: Temp 100-112 Wind Colm-2 Cloud cover 0-10/Rain
Comments: -(0:00-11:00) Whous by Benefic Sp. 12:36 Benefic Sp. 12:36 Benefic Sp. 12:39-12:44 Benefic Sp. 1:10-1:40 Benefic Perong & Sp. 1:10-1:40 Benefic Pyrong & Sp. 1:41-2:00 Very ht most insultines in the shale,
Biological elements: Rhaphiomidas terminatus?time sex numbers
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebrates

Date: 7/22/06

Time: 10:00-14:00

Job :Plot #10 W, DSFLF absences/presence

survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Weather: (General) Record heat high

Wind:

Cloud cover: Impending possible rain

Rain: Humidity rising from previous days

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	40% High Cirr. NW	clear <u>patchy</u> overcast drizzle shower	2.6 Max 1.1 Ave	96.0F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 14:00	40% Cum Nimbus N & E	clear <u>patchy</u> overcast drizzle shower	3.3 Max 1.0 Ave	111.4 F 113.1 (Sun, 1 meter)

	NONE
Other arthropods (general)	Bombyliids X Asilids X
Mydids Apio	cerids X Sphecids X Pompillids Scoliids
Chrysidids X Ves	pidaeX Coccinellidae X Mutillidae Hesperidae X
Coleopetera Libe	ellulidae X Nymphaidae Lycaenidae
Scarabade Pyralida	ae X Pieridae Acrididae X
Other insects of note:	
Plants: Croton Tele	egraph weedx Eriogonum fasciculatum x
Eriogonum thurberi	x other Eriogonum Oenothera
Camissonia x	Eriastrum
Othoras	

Vertebrates: Starling, House Sparrow, W. Kingbird, Mocking bird, W. Fence lizard, Cottontail rabbit, CA. Squirrel, Mourning Dove, Red Tail Hawk, Common Crow, Black Pheobe, Killdeer, TV, Starling, Redwing Black bird, Sharp-shin hawk, House finch, Barn Swallow
Comments:

Date 7-23-06 Miles 2242 Biologists Al	244
Weather: Tem	092-97 Wind 2-8 Cloud cover 50%-10Rdin 0-4primble
Comments: 6: 6: 72 - 72 - 71 - 13	N-10:00 - 10:40 gravious spherit spf. Uspids. 10:45-11:21 Bembis sp, 11:45-12:45 amophila sp, 12:55-1:05 45-2:00 Bembis sp.
	midas terminatus ?timesexnumbers
M C	hropods (general) Bombyliids Asilids Sphecids Sphecids Sphecids Scoliids Scoliids Stoliids St
E C	Croton Telegraph weed Eriogonum fasciculatum riogonum thurberi other Eriogonum Oenothera amissonia Eriastrum thers:
Vertebrat	es :

Date: 7/23/06

Time: 10:00-14:00

Job :Plot #10 E, DSFLF absences/presence

survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Weather: (General) Lightning to the SW 10:00-10:20am Wind: very still Cloud cover: low Rain Few drops, humid

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	100%	clear patchy <u>overcast</u> drizzle shower	Max 1.5 Ave .6	87.4F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop: 14:00	80% Cum Nimbus N & E	clear <u>patchy</u> overcast drizzle shower	Max 5.3 Ave 3.1 SW	110.6 F 115F (full sun in green grass)

	NONE
ner arthropods (ger	neral) Bombyliids X Asilids X
Mydids	Apiocerids X Sphecids X Pompillids Scoliids VespidaeX Coccinellidae X Mutillidae Hesperidae X
Coleopetera	Libellulidae X Nymphaidae Lycaenidae X
Scarabade I	Pyralidae Pieridae Acrididae X
Other insects of	of note:
ants: Croton	Telegraph weedx Eriogonum fasciculatumX
Eriogonum thi	urberi x other Eriogonum Oenothera
Camissonia	x Eriastrum
Others:	

rabbit, CA. Squirrel, Mourning Dove, Red Tail Hawk, Common Crow, Black Pheobe, Killdeer,

TV, Starling, Anna's humming bird, House finch

	06 Time 10:00 to 2:00 Job 5CE
Weather: Te	
Comments:	- 10:00-11:06 Black Spherid sp 11:05-12:35 - 12:40-12:45 Black Brownly Vidore 12:47-1:07 1/2 Nespike Chrysidib - 1:45-2:00 common ailith
Biological ele Rhaph	ments: iomidas terminatus ?time sex numbers
Other a	Asilids Apiocerids Sphecids Scoliids Scoliids Mutilids Scoliids Scoliids Other insects of note
Plants:	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:

Date: 7/24/06

Time: 10:00-14:00

Job :Plot # 9, DSFLF absences/presence

survey

Surveyor: Ellen Schafhauser

Survey Partner(s): NA

Mileage on site: 0

Weather: (General) Temp: Lingering Humidity form previous day building to only a few drops

of rain

Comments:

Wind:

Cloud cover: Rain: few drops

Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start: 10:00	70% N and E	clear <u>patchy</u> overcast drizzle shower	2.8 Max .7 Ave SW	89.1F
12:16	Heavy cum, possible rain	clear patchy <u>overcast</u> drizzle shower		
12:56	Light rain	clear patchy overcast drizzle shower		
Stop: 14:00	40% Cum/Nimbus NWand E	clear <u>patchy</u> overcast drizzle shower	3.8 Max 2.8 Ave. SW	103.2F

Other arthropods (general) Bombyliids x Asilidsx Mydids Apiocerids x Sphecidsx Pompillids Scoliids Chrysidids _x Vespidae X Coccinellidae X Mutillidae X Hesperidae X Coleopetera Libellulidae X Nymphaidae X Lycaenidae X Scrabedae X Pyralidae X Acrididae X Other insects of note:	
Plants: Croton Telegraph weed x Eriogonum fasciculatum _X Eriogonum thurberi x other Eriogonum Oenothera Camissonia x Eriastrum Others:	

Date 7-26-0	76 Time 10:0	o to 2:00)	Job SCE	10
Miles 7 21 Biologists	AUD		rma	rine layer	
Weather: Ter	mp97-102 Wind	2-5 Clo	ud cover 80%	Rain	
Cotina	mlia spro - Bonslyle - texanis.	nemony	Tychenis dis sp	the spt.	· · · ·
Biological elei	nents: iomidas terminatus	?time	sex r	numbers	
	rthropods (general) MydidsApic Chrysidids Mymerleontids	ocerids Mutilids	Sphecids Scoliids		
		other Eri Eriastrum _	ogonum	Oenothera	
Vertebr					
					:

ather: To	emp von Wind O Cloud cover O Rain U
mments:	
	and its desired to the second
rea /	1030-1130 160624 Booker Carcare
- 6A	1 1,34-1222 160626 Procticantha, S
	1240 - 1330 160635
90	1340 - 1400 160642 Bustante on
- 1	
ological ele	ements:
ological ele Rhapi	ements: hiomidas terminatus ?time sex numbers
Rhapi	hiomidas terminatus ?time sexnumbers
Rhapi	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids
Rhapi	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids
Rhapi	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids
Rhapi	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids
Rhapi	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Sex numbers
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note **Croton Telegraph weed Eriogonum fasciculatum _ Eriogonum thurberi other Eriogonum Oenothera
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note : Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Oenothera Camissonia Oenothera Camissonia
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note **Croton Telegraph weed Eriogonum fasciculatum _ Eriogonum thurberi other Eriogonum Oenothera
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others: Others: Others: Others.
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others: Others: Others: Others.

	2006 Time 10:00 to 2:00 Job SCE 106
Miles 22	
Biologists	AVD
Weather: Te	mp91-100 Wind 1-8 Cloud cover O Rain O
Comments:	al m / a 1
0 1/	Themomydia, Dembris, vorious yrespidas.
Scelegto	nemomylia, Cembris, vorious yelspidas.
Khaph	iomidas terminatus?timesexnumbers
Other a	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids
	Mydids Apiocerids Sphecids
	Chrysidids Mutilids Scoliids
	MymerleontidsOther insects of note
Plants:	Croton Telegraph weed Eriogonum fasciculatum
	Eriogonum thurberi other Eriogonum Oenothera
	Camissonia Eriastrum Others:
Vertebi	
V CITCOI	ground squirrele, common gopher.
	James James Joseph John II
	V

		Survey Partner(s) //.			-
		# 160678 on v			
Time (24 hr)	% Cloud	Sky	Deporture de la companya de la comp	Winds (mph)	Temp (F)
Start 1022	Cá	clear patchy overcast driz	zle shower		
1134	2+	clear patchy overcast driz		calm.	87
		clear patchy overcast driz			8 /
Stop / 16	25	clear patchy overcast driz		cah	90
-					
Pompillid Other inse	S	Bombyliids Asiliverids Sphecid Scoliids	Chrysidid	ls	
Pompillid Other inse	s_ccts of note Telegon thurberi	Scoliids	Chrysidid	ls	
Pompillid Other inse	S_ccts of note_ //: Dip Telegon thurberi_ ia Burrens	graph weedEriconum Eriastrum	Chrysidid Ogonum fasci Oeno Otto+KK K Name	culatum_thera	train
Pompillid Other inse	S_ccts of note_ //: Dip Telegon thurberi_ ia Burrens	Scoliids 6, Ny 10, 7 6t. graph weed Eric other Eriogonum Eriastrum 1022-1032 1049-1134 1052-1134	Chrysidid Ogonum fasci Oeno Otto+KK K Name	culatum_thera	
Pompillid Other inse And Plants: Croton Eriogonum Camisson Others: ertebrates: Comments: And And	Teles Total Teles Thurberi Total Teles Teles Total Teles Teles Teles Total Teles Teles	Scoliids 6, Ny, 10, 7.665 graph weed Eric other Eriogonum Eriastrum 1022-1032 1049-1134 1052-1134 1134-116 KH	Chrysidid Ogonum fasci Oeno (Ho+KK K Rupus CHO A N	culatum_thera	their

Date 7/29/0	Time	1252-144 Job SCE	19
Surveyor _/<	40	Survey Partner(s)	
Mileage on site	1607	16	
Weather: (Ger	neral) Temp	87 Wind 6-5 Cloud cover 25	Rain_
Time (24 hr)	% Cloud	Sky Winds (mpl	n) Temp
Start / 252	25	clear patch overcast drizzle shower	
		clear patchy overcast drizzle shower	-
		clear patchy overcast drizzle shower	
Stop 144	25-50	clear patchy overcast drizzle shower	87
Other arthropods	s (general)	Bombyliids Asilids	
Mydids	s (general) Apio		
Plants: Croton Eriogonu Camissor	s (general) Apio ds ects of note Tele m thurberi	Bombyliids Asilids cerids Sphecids	

Date 7-29-2006 Time 10:32 to 2:00 Job 5 CE	
Miles 22 4447 Biologists AVD / RA	
,	
Weather: Temp 85-90Wind 1-12 Cloud cover 95-90Rain	
Comments: 2-10:32-11:12 224447 Promacus, Bembix melanopsis,	*
Bombiliboe: approchanters mus, Ryrong & parkers. - gondrymyx, Birneix cornata. Millis: of Darymukilla	
3-11:14-11:19 Prononwrman Soldle both brogmfly, yelle trater.	
Making pain of Promocus Sp. 1-11:26 -11:56 22444 9:4 - Pyronyx foxt, Children sp. Rogonomyres	0
Schilandan mentulation 2249520 - Volistes Calfornices, Thyrocanthrus accounts	(
65-224452.8-12:03-113 Persony for Dachyphor op.	
Biological elements: Rhaphiomidas terminatus?time sex numbers Migas hile sp.	L
- Show man	
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids	
Chrysidids Mutilids Scoliids Scoliids Other insects of note	
•	
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	
Others:	
Vertebrates	
•	

Date 7129/06 Time 1230 to 1330 Job 8
Biologists Brian Drand
Weather: Temp 88.2 Wind NUC 1.714. Cloud cover 90% Rain O
- F. Francisco
btwp: X
formicidae.
bipulx
*
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Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
Plants: Croton Telegraph weed Eriogonum fasciculatum _ Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebrates have made at the state of the s
uto spirm. biun.
calyptic ance

Date 7-30-06 Time 10:00 to 11:54 Job Sc Miles 224521	E
Biologists AVD/AR	
Weather: Temp 79-82-8 Wind 2 Cloud cover 100-70 Rain (2
Comments: 11- 10:00 - 10:10 - 224521- anthophorida Coment	in up.
Cocinclikae, Syrphidae - Nristale sp. 12-10:25-10:47-224523,4- Bembin comata. Pog	marma i han
fier stipper, agnor blue, jugny blue,	and had a dread
9-10:54-11:54-224523.8- Copertiflum meria	- agapostem
Efina albelantie	· · · · · · · · · · · · · · · · · · ·
	·
Biological elements:	
Rhaphiomidas terminatus ?timesexnumbers	
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids	
Chrysidids Mutilids Scoliids Mymerleontids Other insects of note	-
other insects of note	<u>:</u>
District Control Tribunal Control Control	
Plants: Croton Telegraph weed Eriogonum fascicul Eriogonum thurberi other Eriogonum Oenoth	
Camissonia Eriastrum Others:	
	·
Vertebrates 🕠	·
Burrowing owl 9	

Date 8-01-06 Time	10:15 to 1:42 Job_SCE	
Miles 224589- Biologists AVD-R	7	
Weather: Temp 85-90	Wind 2- Cloud cover 50- Rain	
Comments:		
65-10:16-10:26	- 224589,6- Cotinus texanus,	
5-10:36-+0-	70:51-224590.5- kicked out by FENTER (truck driving school	1)
9-10:48-10:58-22	Bendin mornogero, My Lanthray mistellus, Clis alsione Jasypatilla cosinjahurta, Spekonie	1
citrata tyrony fax;	Semilia molnapeta, My Kahthray miskellis,	
3- 11:13-11:16-	224592 - Harmatilla carinista Archania	
2-11/23-12:0	3 - 27490.4- Bembix melangries, Esheria tribintade	
Jugira spp. B	inglia courte, Circirus Jemerulrus,	7
	// - / -	
1-12:20-12:53-	224954- Malophora, Syrphidisp Pyronge penberi.	
Trames only	22 4608.6 - Umphila sp., Wifa maitor.	
70 1021-1.72-	204608.6 - whofened up. , Pela maister.	
Biological elements:		
Rhaphiomidas termino	atus?timesexnumbers	
Other arthropods (gene	eral) Bombyliids Asilids Asilids	
Mydids	Apiocerids Sphecids	
Chrysidids	Mutilids Scoliids L	
Mymerleontids	Other insects of note	
	··································	
Di		
Plants: Croton	Telegraph weed Eriogonum fasciculatum	
Camissonia	rberi other Eriogonum Oenothera Eriastrum	
Odlets.	·	
-		
Vertebrates		
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Cloud D	clear clear clear	patchy patchy patchy patchy to	Sky overcast overcast overcast	drizzle drizzle drizzle drizzle	shower shower shower shower	Winds (mph)	
Cloud	clear clear clear	patchy patchy patchy patchy to	Sky overcast overcast overcast	drizzle drizzle drizzle	shower shower	Mileage on	84-
Cloud	clear clear clear	patchy patchy patchy patchy to	Sky overcast overcast overcast	drizzle drizzle drizzle	shower shower	Mileage on	84-
Time	clear clear clear	patchy patchy patchy to	overcast overcast overcast overcast	drizzle drizzle drizzle	shower shower	Mileage on	84-
Time	clear clear clear	patchy patchy patchy to	overcast overcast overcast overcast	drizzle drizzle drizzle	shower shower	Mileage on	84-
	clear	patchy patchy patchy to	overcast overcast overcast	drizzle drizzle drizzle	shower shower	Mileage on	site
	clear	patchy to to	overcast	drizzle	shower		
		to_					
	n. 2	to	124-5				
termin	patus ?	to	time	sex		mbers	
ral)	Bomb; erids_	yliids _	A	Asilids _	Charaidid		
1	ral) Apioc	ral) Bomb ApioceridsSco	to t	to to to to to to to to to to to	to to to to to to to to to terminatus?timesex ral) BombyliidsAsilids ApioceridsSphecids Scoliids	toto	to to to to terminatus?timesexnumbers ral) BombyliidsAsilids ApioceridsSphecids ScoliidsChrysidids note

Plants: Croton ____ Telegraph weed ___ Eriogonum fasciculatum ___
Eriogonum thurberi ____ other Eriogonum ____ Oenothera ___
Camissonia ___ Eriastrum ___
Others: ____

	6 Ti	ime 1030	0 to 113	0	Job8	
Miles Biologists	0 , 0-	- ,				
Diologists	Drigo We	no_				
Weather: To	73.7	Wind 5	SWC12/2.30	loud cover 6	Rain O	_
Comments:	j					
mallo phone	J flutrix					
brondx						
- cppups	KUGTNM					
- timbetu	opic					
- Carcophas	jidhe.					
Precio C	ounie					
- Harmicia	40					
6.60 pa.	a					
Biological ele Rhaph	ements: hiomidas te	rminatus ?				
Other	Chrysidids	Apioc	Bombyliids _	Asilid Sphecids Scolii	ds	
Plants:	Eriogonum Camissonia	ı thurberi _ a	raph weedother Ei	riogonum	onum fasciculatum Oenothera	
77						
Verteb		ر مل				
	ctha	Utu bub	corcu			
	hof;	110000000000000000000000000000000000000	modo			
	1000	CUTO	1,000			

Weather: Time (24 hr)	% Cloud	Sky + Sky	Winds (mph)	Temp (F)
Start		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		
		to /23. to to	166005	
Biological elemo		toto	pers	
Mydids _ Pompillio	dsApic	Bombyliids Asilids Sphecids Chrysidids		
		graph weedEriogonum fascicul		

Surveyor A	224	665	7-					
Overall Mileage	<u></u>	200	0 /			v		
Weather:								
Time (24 hr)	% Cloud			Sky	2-07		Winds (mph)	Temp (F)
Start 10:00	10-horas	-clear	patchy	overcast	drizzle	shower	1	91
	00	clear	patchy	overcast	drizzle	shower		
		clear	patchy	overcast	drizzle	shower		
Stop 2100	0	clear	patchy	overcast	drizzle	shower	4	96
Shed sweep							mbers .	
Pompillid Other inse Dowy I Dw —	Apioos sects of notely autilla Collachyope Tele n thurberi	Scorids Scorid	bliids_ buto buto op, weed_ other E	Sph Lies Far Sum Joan	Eriogo	Chrysidid Thilas Thilas num fasci	Mus ventila equorbsi, Is amophila al	schittere dis

Veather: Time (24 hr)	% Cloud	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Cl.	16. No. 16. No.			
Start /2 /8	Huze	clear patchy	Jay		a spenie vo	Winds (mph)	Temp (
Mat 7 2 7 0	ruze	clear patchy	overcast	drizzle	shower	cale	85,
		clear patchy	overcast	drizzle	shower		
Stop 220	light hoze	clear patchy	overcast	drizzle drizzle	shower	cale	28
ological eleme		to t	2.2.		nu		26
Pompillid Other inse	Apioo	-	Sphe	(Chrysidid	s	
	Teleg	graph weed		Eriogon	num fascio		

	/	Survey Partner(s)	2	-
Overall Mileage	2:44	719,7-22472		
Weather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start 10:00	100	clear patchy overcast drizzle shower	1	273
1/100	100	clear patchy overcast drizzle shower	1	78-79
		clear patchy overcast drizzle shower		
Stop		befores of dishing the field		
		to		
Other arthropods (Mydids Pompillids	general) Apioc	Bombyliidssexnu Bombyliidssexnu BombyliidsSphecids ScoliidsSphecids ScoliidsSphecids ScoliidsSphecids ScoliidsSphecids Poly fundamental again pper fundamental again	s Day	mulila

,	Overa	all Time				Jobs SCE	
SurveyorK	Ho	Survey Partner	r(s)	8			
Overall Mileage							
veran wineage							
Veather:							
Time (24 hr)	% Cloud	THE DE SELECTION	Sky			Winds (mph)	Temp (F)
Start 10 45	10%	clear patchy	overcast	drizzle	shower		-85
1195	23	clear patchy	overcast	drizzle	shower	0	88
		clear patchy	overcast	drizzle	shower		
Stop 12 50	0	clear patchy	overcast	drizzle	shower		96
	-	Waze					
ite#	Time			= 1-	-	Mileage on	
C18 9	_/		120	3/2.	20	16/2	-94
		to_					
		to_			_	\	
CE10		to	4.0	KHOL	TRogen +	U-M	
	10		/010		_)——	
	-	to_					
	_	to_ to		-	_		
		to					
	_						
		to		-		-	
		to_			=		
Rhaphio	midas termi	to inatus?t		/		umbers	
Rhaphio	(general)	inatus?t Bombyliids_	Spho	Asilids ecids	4		
ther arthropods Mydids _ Pompillio	(general) Apic	inatus?t Bombyliids_ ocerids_ Scoliids	A Spho	Asilids _	Chrysidio	is	
Rhaphion Other arthropods Mydids _ Pompillio Other ins	(general) Apic	Bombyliidsscoliids	A Spho	Asilids _	Chrysidio		
Other arthropods Mydids Pompillic Other ins	(general) Apic	Bombyliidsscoliids	Spho	Asilids _	Chrysidio	ds	
Other arthropods Mydids Pompillic Other ins	(general) Apic	Bombyliids	Spho	Asilids _	Chrysidio	ds	
Rhaphio Other arthropods Mydids _ Pompillio Other ins	(general) Apic ls_ects of note	Bombyliidsscoliids	Spho	Asilids ecids _	Chrysidic	ds	
Other arthropods Mydids _ Pompillio Other ins Plants: Croton Eriogonu Camisson	(general) Apic ls ects of note Tele m thurberi	Bombyliidst Bombyliidst Scoliidst egraph weedother En	Sphoriogonum	Asilids ecids	Chrysidio num fasci Oeno	isiculatum	
Plants: Croton Eriogonu Camisson	(general) Apic ls ects of note Tele m thurberi	Bombyliidst Bombyliidst Scoliidst egraph weedother En	Sphoriogonum	Asilids ecids	Chrysidio num fasci Oeno	dsiculatum	

	verall Mileage	2247B	1.57						
			++						
The same	Weather: Time (24 hr)	% Cloud		Sky			¥9.70		
	Start 10:00	10	(Fear patchy		drizzle	shower		Colm	Temp (F)
	7- ,-0	10	clear patchy			shower	-	voorn	92
			clear patchy	overcast	drizzle	shower			
	Stop 2:00	-	clear patchy			shower	2	-3	95
		(13
7.0	Site#	Time	40 4	12/	2-		1	Mileage or	
	10W			12:0		_	-	2247	01.5
-	1000		to			_	-	2247	83.5
			to			_			
			to			_			
			to_						
-			to_			_	-		
-		-	to			_	-		
		-	to			-	-		
			to			_	-		
						_	_		
I	Biological elemen								
	Knaphiom	uaas termu	natus?	time	sex	nu	imbers		
	-								
				/		_			
(Other arthropods (Asilids _				
			cerids	Sph	ecids_				
	Pompillids		Scoliids		000	Chrysidic	is	110	
			wellus.	7	- va	nosom	erys	- Toller	1.1.6/0
		imodulot	a Amas	hilas	1000	nusa,	ti c	Contlys 1	Jenucovac 1
			los pondo	YMA)	an	Olila	1	ati O	Olivante to
	elre	mus.	Cironet	29	Mala	horn	LI SI	50ms	an to
	Plants: Croton _	Tele	graph weed _	.,	Eriogbi	um fasci	culatur	m_	of hut rese
	Eriogonum	thurberi_	other E	riogonum	1	Oeno	thera_		and the second
		-	Eriastrum						

	Overa	all Time		0		Jobs SCE	7 / /
urveyor	LAU	Survey Partne	er(s)				_
verall Mileage	/	61					
Veather:							
Time (24 hr)	% Cloud	nd Spatistics	Sky			Winds (mph)	Temp (F
Start //3 4	1	clear) patchy	overcast	drizzle	shower		86
		clear patchy	overcast		shower		
		clear patchy	overcast		shower		
Stop /2 15		clear patchy			shower		88
ite#	Time					2.50	
5		134 to	1215	•		Mileage on	
						16199	5
	-						
		to			_		
	-	to			_		
		to			_		
		to				***************************************	
		to					
		to			_	-	
	_				_		
iological eleme	ente:	to					
ther arthropods Mydids _ Pompillid	(general) Apio	to to to	time	sex_	nu	ls	

Date 8-65-6	6 Overa	all Time 10:10-2:00	Jobs S	$\subseteq E$
Surveyor AV	<u>'D</u>	Survey Partner(s)		
Overall Mileage	2248	50.2 - 22,4854.6	0	
Weather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start 10!10	0	clear patchy overcast drizzle shower	calm	87
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		
		tototototo		
iological eleme Rhaphion		natus ?time sex nu		
Pompillide Other inse	Apioos cts of note Mentine Wil sp.	Serids Sphecids Scoliids Chrysidid G 5 - Chlorion pp . H - Can Bentix metanopsis . 3 - The melanopsis - Tyronyx la- Villa cathoto, Pyx	poonerus toll Robanthrondha foxi, Pyronyx onyx flyi,	eca, Eta, ponteri
Eriogonun	n thurberi _ a	graph weed Eriogonum fascio other Eriogonum Oenoi Eriastrum	culatum thera	

Do	6 Over	all Time					Jobs S	CE.
Surveyor <u>Rick</u>	-Ragers	Survey	Partne	er(s)				
Overall Mileage								
Weather:	- 1							
Time (24 hr)	% Coud	Hone Gar		Sky			Winds (mph)	Temp (
Start	1	clear	patchy	overcast	drizzle	shower	Imph.	85°
	2	clear	patchy	overcast	drizzle	shower	i sipa.	95
	+	clear	patchy	overcast	drizzle	shower		
Stop		clear	patchy	overcast	drizzle	shower		970
Site #	Time						3.421	
//	F	1:45	to	1:03	5		Mileage or	ı site
12		: 60	to	2:0	0	_	-	
, -	i		to			_		
	-		to_				7	
	1		to_					
	<u> </u>		to_			_		
	+		to_			_		
	· ·		to_				-	
	1		to_ to					
			to_					
	nts: nidas termin	natus ?	t	ime	sex _	nur	nbers	
ther arthropods (Mydids Pompillids Other insec	(general) Apioo	Bomby ceridsSco	liids v	A Sphe	silids	Chrysidids	nbers truta/poli	stes apachu

Date 8/05/06 Time 1230 to 1330 Job 8
Biologists Brian Dranu
Weather: Temp 88.7 Wind WC1.412.7 Cloud cover 0% Rain 0 0% OF 13.9 Comments: 0% At U 0% Trimustropis Chbris acrain
6)10746
chrysididad
cleptus
g. protodice
Biological elements: Rhaphiomidas terminatus?timesexnumbers
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids
Chrysidids Mutilids Scoliids
MymerleontidsOther insects of note
Plants: Croton Telegraph weed Eriogonum fasciculatum _ Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:
Vertebrates Calvet I
spirm. buch. bloh uta v. fru lizard
uta v. fra lizard

verall Mileage	2248	379.7-				A	
Weather:							
Time (24 hr)	% Cloud		Sky	计划模型		Winds (mph)	Temp (F)
Start 10:00	1000	clear patchy	overcast	drizzle	shower	2	82
		clear patchy	overcast	drizzle	shower		
72100		clear patchy	overcast	drizzle	shower		
Stop 1915		Clear patchy	overcast	drizzle	shower	8	95
		to_			_		
	_	toto					
Rhaphion	nidas termii	to to to				abers	
ther arthropods Mydids \(\) Pompillids	(general)	to to to	A	asilids _		8 7	
Mydids Normalistics Mydids Normalistics Pompillids Other inse	(general) Apioos cts of note Mony	Bombyliids Scoliids	A	asilids _			stiller corinishes
ther arthropods Mydids _ Pompillids Other inse	(general) Apions cts of note Mony yuo op	Bombyliids Scoliids Scoliids	Sphering Aging	asilids	Chrysidids Chrysidids	to Davymistalis Vati	ristilles corinichus
ther arthropods Mydids \(\) Pompillids Other inse	(general) Apioos cts of note Mony Vio op Tele	Bombyliids Scoliids Scoliids Aoo, The Contraction of the Contraction o	Sphering Sphering	asilids	Chrysidids Cathrat Company Low of the second of the sec	to Dacymistalis lating	ristilla Corinichus
ther arthropods Mydids _ Pompillids Other inse Tanna Plants: Croton Eriogonum	(general) Apion Cts of note Mony Cts of note Telegathurberi	Bombyliids Scoliids Scoliids	Sphe Sphe Sphe Sphe Sphe Sphe Sphe Sphe	asilids	Chrysidids Cathrat Company Low of the second of the sec	to Dacymistalis lating	ristilla Corinichu Frond Pristilla sp., 6N

Delhi sands flov	ver-loving	fly - General l	Form				
Date Avg 766	Over	all Time 20	min.			Jobs Sc	E.
Surveyor Rick	Rogers	Survey Partne	r(s)				
Overall Mileage							
Weather:							
Time (24 hr)	% Coud		Sky			Winds (mph)	Temp (F)
Start /:30	0	clear patchy	overcast o	drizzle	shower	Market Salar	88"
	.1.	clear patchy	overcast o	drizzle	shower		00
		clear patchy	overcast o	drizzle	shower		
Stop /=50	0	clear patchy	overcast o	drizzle	shower		89°
Site #// Biological elements Rhaphion	nts:		1:50			Mileage on	
Pompillids Other inse	Apio cts of note Tele	Scoliids Chlorion	Sphec	ids J	Chrysidid Lunpsom	evis toltera/C	otins texana

Others:

Overall Mileage	320	1908.	3			
Weather:						
Time (24 hr)	% Cloud		Sky	ar Piar	Winds (mph)	Temp (F)
Start 18:45	20100	clear patchy	overcast drizzle	shower	calm	80
		clear patchy	overcast drizzle	shower		00
		clear patchy	overcast drizzle	shower		
Stop	2:00	clear patchy	overcast drizzle	shower	2	90-9
Biological eleme		to to to to	1:30		224	9/6.2
Other arthropods Mydids Pompillid: Other inse 2	(general) Apioc s cts of note Pioce a Posymula Apheria a Teleg thurberi	Bombyliids erids	Sphecids Complete Com	Chrysidid:	S	

Start 10:00 Stop ite # 10 e 10w 10 iological elements:	Cloud Clear patch clear patch clear patch clear patch clear patch 22494644 to 12:04 to to to	Sky ny overcast ny overcast ny overcast ny overcast ny overcast no 1210 no 1511 no 15	drizzle drizzle drizzle drizzle	shower shower shower	Winds (mph) 2 Mileage o 2249 2149	Temp (F 92- 103 on site 946.4 148.4 148.4
Veather: Time (24 hr) Start 10/00 Stop ite # 10 e 10w 10 Stop itological elements:	Cloud Clear patch clear patch clear patch clear patch clear patch 10:00 22:04 to to to	Sky ny overcast ny overcast ny overcast ny overcast ny overcast no 1210 no 1511 no 15	drizzle drizzle drizzle drizzle	shower	Z	93 103 on site
Start (0)00 Start (0)00 Stop ite # // Oe // Ow // O	clear patch clear patch clear patch clear patch clear patch fire 10:00 22494644 to 12:04 to to	ny overcast no 12 10 no	drizzle drizzle drizzle	shower	Z	93 103 on site
Start (0)00 Start (0)00 Stop ite # // Oe // Ow // O	clear patch clear patch clear patch clear patch clear patch fire 10:00 22494644 to 12:04 to to	ny overcast no 12 10 no	drizzle drizzle drizzle	shower	Z	93 103 on site
Start 10:00 Stop ite # 10 e 10w 10 iological elements:	clear patch	ny overcast no 12 10 no	drizzle drizzle drizzle	shower	Z	93 103 on site
ite # 10 e 10 w 10 c 10 c 10 c 10 c 10 c	clear patch clear patch Clear patch D! 00 22494644 to 12:044 to to to	overcast ove	drizzle drizzle	shower	Mileage o	103
ite # 10 e 10w 10w 10w 10w 10w 10w 10w 10	clear patch	overcast ove	drizzle drizzle	shower	Mileage o	n site
ite # 10 e 10w 10w 10w 10w 10w 10w 10w 10	Clear patch Clear	10 12 10 10 10 10 10 10 10 10 10 10 10 10 10	drizzle		Mileage o	n site
ite # 10 e 10w 10w 10w 10w 10w 10w 10w 10	Time 10:00 2249464 to 12:04 to 1:25 to to	12 10 12 10 10 10 10 10 10 10 10 10 10 10 10 10	00		Mileage o	n site
iological elements:	12:04 to 1:25 to to to to to			- 752:0		
	s terminatus ?	_time	sex_	num	bers	
Pompillids Other insects of Conopia Epiolica I	Apiocerids Scoliids of note Amap Male Spal, Paintin	Sphora Alexandry Wenty	ecids C Perti, 7 Bend Wind, Eriogoni	Lopinil um fascicu Oenothe	Polistica of warming	1/ Clamens

Date 8/08/56 Miles	Time 1030 to 1130 Job 8
Biologists Bria	DryKe
Weather: Temp_	90.4 Wind WC1.1/1.7 Cloud cover 10°6 Rain 0
Comments:	
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THE SECULT	ilis.
405 MILINAC	
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2. 2007	
telleretel	
Pagitia robil	WC .
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chodes	
apix mullif	₹~ <i>U</i>
Chr	opods (general) Bombyliids Asilids dids Apiocerids Sphecids ysidids Mutilids Scoliids
	nerleontidsOther insects of note
Erio, Cam	ton Telegraph weed Eriogonum fasciculatum gonum thurberi other Eriogonum Oenothera issonia Eriastrum ers:
Vertebrates	
ho	
WU	ri tuvu

_	2249	91.0-2	2500	4,8		
Weather:						
Time (24 hr)	% Cloud	Barrier and	Sky		Winds (mph)	Temp (F)
Start 10:00	0	clear patchy	overcast drizz	le shower	calm	89
		clear patchy	overcast drizz	le shower		0 /
		clear patchy	overcast drizz	le shower		
Stop 1:15	0	clear patchy	overcast drizz	le shower	2-colm	101
		totototototo				-
	(general)	Bombyliidst eridsScoliids	Asilids Sphecids		Is > Philon	thus-

Start 10.00		rall Mileage		Survey Partne				7.77	
Time (24 hr) % Cloud Sky Winds (mph) Ten Start 10(00	0.0	an whicage _	_	30				011	
Start 10 00		T.							
Clear patchy overcast drizzle shower Stop 200 Clear patchy overcast drizzle shower Stop			% Cloud		Sky				Temp (F)
Clear patchy overcast drizzle shower Stop 200 Clear patchy overcast drizzle shower Stop 200 Clear patchy overcast drizzle shower Green patchy overcast drizzle sho	Start	10:00	0	clear patchy	overcast	drizzle	shower	Colm	100
Site # Time O'OO to O'OO				clear patchy	overcast	drizzle	shower		
Site # Time O'OO to OO OO OO OO OO OO OO		12:00		clear patchy	overcast	drizzle	shower	4	
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Other insects of note farmoneste allowables, Episoia allowables, and the service of the ser	Stop	2:00		clear patchy	overcast	drizzle	shower	4'	96
Other arthropods (general) Bombyliids Sphecids Mydids Apiocerids Sphecids Pompillids Scoliids Other insects of note farmonesse allowable formulas inserting for the service of the serv	C:A-	4	TIES!					,	
to			Time	200	11/0	^		Mileage or	site
to to to to to to to to to to to to to to Telegraph weed to to to to to to to to to t			-	to_	12:0	0	_	2250	025.7
to to to to to to to to to to to to		000			010	0	_	2250	2277
to to to to to to to to to to to t							-		
to to to to to to to to to to to							-		
Biological elements: Rhaphiomidas terminatus?timesexnumbers Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note Parapale odworksi Eporia allowatus Compliance Compliance Helmanus fillowatus Land wings g resultage. Plants: Croton Telegraph weed Eriogonum fasciculatum									
Biological elements: Rhaphiomidas terminatus?timesexnumbers Other arthropods (general) Bombyliids Asilids								*	
Biological elements: Rhaphiomidas terminatus? time sex numbers Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note farnopele odworksi . Ephrin alloworkse farnopele odworksi . Ephrin alloworkse farnopele							_	-	
Biological elements: Rhaphiomidas terminatus? time sex numbers Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Pompillids Scoliids Chrysidids Other insects of note farnopele odlyonhai, Etherian allowante, farnopele farnopele farnopele farnopele farnopele farnopele				to					
Biological elements: Rhaphiomidas terminatus? time sex numbers Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Chrysidids Other insects of note farnopele odlyonkai, Ephonia allofonfule Comopilae, thembury from the formula farnopele full multiple farnopele full multiple farnopele full multiple farnopele full multiple				to			_		
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note farnopele ollvorbai Eporia allolature Compilla abento john Composition Typesenitie, Yellow Plants: Croton Telegraph weed Eriogonum fasciculatum				to					
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note farnopele ollvorbai Eporia allolature Compilla abento john Composition Typesenitie, Yellow Plants: Croton Telegraph weed Eriogonum fasciculatum	D!-1-								
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note Arnopele edworbai, Ephoria albohonfule Conopide, Monthus bisornuta, fund wings grassforger. Plants: Croton Telegraph weed Eriogonum fasciculatum	Biolo								
Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note farnopele alworks, Experies allowards Conopilae, Thlonkus biconnuta, Compliant abenti john Coppeny Tycaeniste, yellow Plants: Croton Telegraph weed Eriogonum fasciculatum		Knapniomi	aas termii	natus?t	ıme	sex_	nu	mbers	
Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note farnopele alworks, Experies allowards Company Comopilae, Monthus biconnuta, Company Jyenenidse, yellow Plants: Croton Telegraph weed Eriogonum fasciculatum									
Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note farnopele alworks, Experies allowards Company Comopilae, Monthus biconnuta, Company Jyenenidse, yellow Plants: Croton Telegraph weed Eriogonum fasciculatum		_							
Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note farnopele alworks, Eporia alborolous, Eporia alborolous, Compilar bisonuta, Insorphila abenti idh Coppeny Jyeaenisse, Yellow Plants: Croton Telegraph weed Eriogonum fasciculatum				Bombyliids	\/ A	silids			
Pompillids Scoliids Chrysidids Other insects of note farnopele alwaybai, Ephoria allovatione, Company of Compilar theorem, and wings grasspaper Plants: Croton Telegraph weed Eriogonum fasciculatum	Other	arthropods (s	general)						
Other insects of note Parnopele alworksi, Ephoria Albotonlone, Company Comopidae, Monthus bisonnuta, Comophila abenti idh-Coppeny Tyenenidse, "Yellow Plants: Croton Telegraph weed Eriogonum fasciculatum	Other			cerids			1		
Plants: Croton Telegraph weed Eriogonum fasciculatum	Other	Mydids	Apioo			cids	Chrysidid	<u>s</u> /	
Plants: Croton Telegraph weed Eriogonum fasciculatum	Other	Mydids Pompillids_	Apio	Scoliids	Sphe	ecids	Chrysidid	s V	00
Plants: Croton Telegraph weed Eriogonum fasciculatum	Other	Mydids Pompillids_	Apio	Scoliids_	Sphe	work	Chrysidid	ria albotrary	love,
Plants: Croton Telegraph weed Eriogonum fasciculatum	Other	Mydids Pompillids_	Apio	Scoliids_	Sphe od	work	Chrysidid	ria albotrar	love,
Plants: Croton Telegraph weed Eriogonum fasciculatum	Other	Mydids Pompillids_	Apio	Scoliids_	Sphe od	work	Chrysidid Li Epho Molonthu Deny J	ria allotone us bicarnut yearnibe, y	Lellow
		Mydids_Pompillids_Other insect	Apioo	Scoliids Parnopi Barropi La aberti Arsshap	Sphe od	works Works	Phlonthe Perry 7	ria slotoval us bicarnet yearnibe, y	lellow
Eriogonum thurberi other Eriogonum Oenothera		Mydids Pompillids Other insection of the Compile of	Apioo	Scoliids Parnopu Borrono La aberti Arashop graph weed	Sphe od	works Works Works Works Works	Phlonthy Phlonthy Deny J	ria albotrari ye bizarnet yeaenibe, y	Lellow
Camissonia Eriastrum Others:		Mydids Pompillids Other insection Land Care Eriogonum	Apioo	Scoliids Parnopu Ratings La abento graph weed other Er	Sphe od Conops idle	works idae Coppe	Phlonthy Phlonthy Deny J	ria albotrari ye bizarnet yeaenibe, y	love,

Date 8/11/05 Time 1/18 to 12/0 Job 505
Date 8/11/08 Time 1/18 to 12/0 Job SCE Miles 19/199 Location Hyan Marse 19 Biologists 12 HO
Biologists K HO
Survey for:
Habitat Assessment for:
· /
Weather: Temp 92-73 Wind Cloud cover Rain
Biological elements:
Vegetative communities:
Soil type
Plant species:
Vertebrates
Arthropods
Oak Woodlands Riparian Veg type
Vernal Pools
Comments:
DSP & kg moting

Date 8/12/06 Tim	ne // 48 to //	59 Job_508	
Biologists / (45)	Location		
Biologists // #50 // Survey for:	P		
Habitat Assessment for: _			
Weather: Temp 87%	Wind _ C	Cloud cover u Rain	
Biological elements:			
Vegetative communities:			
87./2	ZN F	1207-1255	
87/2	6.W	1207 - 1255	
Soil time	4.12		
Soil type			
Plant species:			
Vertebrates			
Arthropods	4		
			·
Oak Woodlands Ripa	rian Veg type		'
Vernal Pools	J 71 _		
Comments:	•		
Comments.			

		Survey Partner(s)			_
			25004,)		
Veather: Time (24 hr)	% Cloud	Sk	v	Winds (mph)	T (D)
Start 10100	0	patchy overca			Temp (F)
		clear patchy overca		- wrzi	0/
		clear patchy overca			
Stop 1:39	0		st drizzle showe		100
ological eleme	nts:	to 1/2 to		22506 2250	
Mydids Pompillide Other inse	Apio	Bombyliids Scerids Scoliids Scoliids Pyronys A Puberi, S	Chrysic Chrysic	dids_ elephron cem. es ventilatris Enoto 42 Pro ex porper, 3-	entarium, multimous

Date 8/12/06 Time 1230 to 1330 Job 8	
Biologists Brian Dranu	
Weather: Temp 91.9 Wind WDC1.6143 Cloud cover O'L Rain OR	_
p. probation	<u> </u>
25411;dac	<u> </u>
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Other arthropods (general) Bombyliids Asilids	
Mydids Apiocerids Sphecids Scoliids	
Chrysidids Mutilids Scoliids	
MymerleontidsOther insects of note	<u> </u>
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:	_
	_:
Vertebrates	<u>_</u> ,
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Stop 2: 10 pm O efear patchy overcast drizzle shower 1 mph. 930	Stop 2: 10 pm			clear patchy overcast drizzle s	shower	- Julius	00
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	ther arthropods (general) Bombyliids / Asilids /	iological elemen	1 2 ·	10 to 2:00 pm. to		143770	

Date_8_13-0 SurveyorA_ Overall Mileage	VD 22	Survey Partne	er(s)			Jobs_S	
Weather:							
Time (24 hr)	% Cloud		Sky	Men Sil		Winds (mph)	Temp (F
Start 11,30	0	clear patchy	overcast	drizzle	shower	Calin	87
		clear patchy	overcast	drizzle	shower	0.0.777	- 0 /
		clear patchy	overcast	drizzle	shower		
Stop		clear patchy	overcast	drizzle	shower		
siological elemen		to t	\(\)				
Other insec	Apioc	eridsScoliids	Sphe	ecids(Chrysidid	S	
Camissonia	inurberi _	other Er Eriastrum	iogonum		Oenot	culatum hera	

Date 8/14/	66 Time 1/30 to 1230 Job SCE and 8
Miles - L.	1CHO
Biologists	1660
Weather: Te	mp 85-90 Wind O Cloud cover Rain D
Comments:	
Biological eler	iomidas terminatus?timesexnumbers
Other	
Other a	rthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids
	Chrysidids Mutilids Scoliids
	Mymerleontids Other insects of note
	·
Plants.	Croton Telegraph weed Eriogonum fasciculatum
ridits.	Eriogonum thurberi other Eriogonum Oenothera
	Camissonia Eriastrum Others:
Vertebra	
. 521501	

Jan 40914 760	6 Over	all Time	Jobs	
Surveyor Rick	Rogers	Survey Partner(s)		
Weather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start 10:15 am	0	clear patchy overcast drizzle shower	1-2 mph	87°
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop	6	clear patchy overcast drizzle shower	1 mph	88 *
ite#	Time		Mileage on	site
//		: 15 m to 19: 35	1439	
19		:40 am to 12:05	14393	
94	12	:05 pm to 12:15 pm.	1439 3	38
		to		
		to		
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	-	to	-	
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iological elemen				
The second secon	iidas termi	inatus?time sexn	umbers	
The second secon				
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A STATE OF THE PARTY OF THE PAR				
Rhaphion	(general)	Bombyliids Asilids		-
ther arthropods (Apio	Bombyliids Asilids cerids Sphecids		
ther arthropods (Apio	cerids Sphecids	ds	444
ther arthropods (Mydids Pompillids Other insec	Apio	Scoliids Sphecids Chrysidi Anthophora urbana Strumon m	ds_ elinus/Polistoco	gallicus
ther arthropods (Mydids Pompillids Other insec	Apio	Scoliids Sphecids Chrysidi Anthophora urbana Strumon m	ds_ eling/Polistos a hus/Philanthus mu	gallicus Itimaculatus
ther arthropods (Mydids Pompillids Other insec	Apio	cerids Sphecids	ds_ eling/Polistos d hus/Philanthus mu	gallicus Itimaculates
ther arthropods (Mydids Pompillids Other insec	Apio	Sphecids Sphecids Chrysidi Scoliids Chrysidi Anthophora urbana Strymon m Konceris Bicornuta Polistes apacins/Villa molitor/	hus Philanthus mu	gallicus Itimaculates
ther arthropods (Mydids Pompillids Other insection Dalistes lants: Croton	Apio cts of note avariyu exclama Tele	Scoliids Sphecids Chrysidi Anthophora urbana Strymon m Conceris bicornuta Polistes upecins Villa molitor	iculatum	gallicus Itimaculatas
ther arthropods (Mydids Pompillids Other insection Delistes lants: Croton Eriogonum	Apio cts of note avariam exclama Tele thurberi	Sphecids Sphecids Chrysidi Scoliids Chrysidi Anthophora utbana Strymon m Conceris bicornuta Polistes epecins Villa molitor graph weed Eriogonum fasc other Eriogonum Oene	iculatum	gallicus. Itimaculates
ther arthropods (Mydids Pompillids Other insection Dolistes lants: Croton Eriogonum Camissonia	Apio cts of note avarizm exclama Tele thurberi	Scoliids Sphecids Chrysidi Anthophora urbana Strymon m Conceris bicornuta Polistes upecins Villa molitor	iculatum	gallicus Itimaculatas

Weather:	Cloud Clear patch	Sky ny overcast drizzle	shower shower shower	1225	75 site 22,0
Time (24 hr) Start 10:00 Stop 1:39 Site #	Clear patch clear patch clear patch clear patch Clear patch Time 10.60 to 11.58 to 12.36 to 42.119 to	ny overcast drizzle	shower shower shower	Mileage on 2251	95 site 22,0
Stop \$139 Site #	Clear patch clear patch Clear patch Clear patch Clear patch Time 10:00 to 11:56 to 12:36 to 42:119 to	ny overcast drizzle	shower shower shower	Mileage on 2251	95 site 22,0
Site # 3 5	Clear patch Clear patch Time 10:00 to 11:04 to 12:36 to 42:1/9 to	ny overcast drizzle ny overcast drizzle no 100 no 12:03 no 12:29 no 106	shower shower shower	2 Mileage on 2251	95 site 22,0
Site # 3 5	Time 10:00 to 11:58 to 12:36 to 12:36 to 12:19 to	ny overcast drizzle 10 1100 10 12:03 10 12:29 10 1:06	shower	2251	site 22,0
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3	10:00 to 11:00 to 11:58 to 12:36 to 12:36 to	0 12:03 0 12:29 0 1:06	<u> q</u>	2251	site 22,0
	to to to	o		225 225 22512	23.8 124.3
Other arthropods (ge Mydids Pompillids Other insects 2 - From Standard Plants: Croton Eriogonum the	eneral) Bombyliids Apiocerids Scoliids of note - Jylus Bondler, 4 -	Asilids Sphecids Asilids Sphecids Friogonum	Chrysidids Lin	hobitation sing hillselve most with pick wind pick wind pick m pi	some and mo brup to only h and they a

		all Time 10:00-1:30	JobsS	CE
Surveyor A	/D	Survey Partner(s) RR		
Overall Mileage	225	148.8		
Weather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start /0,00	50	clear patchy overcast drizzle shower	1	90
		clear patchy overcast drizzle shower		10
		clear patchy overcast drizzle shower		
Stop 1:30	0	clear patchy overcast drizzle shower	Colm -	93
Biological eleme		to	umbers	
Other arthropods Mydids	(general)	Bombyliids Asilids Chrysidi	,	anophila

Others:

Date <u>Augllo, 200</u> Surveyor <u>Ric</u>						Jobs <u>SC</u>	E
							_
Overall Mileage							
Weather:	,						
Time (24 hr)	% Cloud		Sky		Gorpall an	Winds (mph)	Temp (F)
Start (0:05 am	0	clear patchy	overcast	drizzle	shower	1 mph	84
		clear patchy	overcast	drizzle	shower		
		clear patchy	overcast	drizzle	shower		
Stop 12.45 pr	0	ctear patchy	overcast	drizzle	shower	2-3 mph.	24
Biological eleme	nts:	to t	12:4	5		1442	18
Other arthropods	Apio		Sphe	ecids 🖊	nu	ds	

Plants: Croton ____ Telegraph weed ____ Eriogonum fasciculatum ___
Eriogonum thurberi ____ other Eriogonum ___ Oenothera ___
Camissonia ____ Eriastrum ___
Others: ____

Overall Mileage	2251	14.2—	22	5/8	7.3		
Weather: Time (24 hr)	% Cloud	Per del se la	Sky			Winds (mph)	Temp (F)
Start 10:08	0	clear patchy	overcast	drizzle	shower	1-2	24
		clear patchy	overcast	drizzle	shower		-6/
		clear patchy	overcast	drizzle	shower		
Stop 12:45	0	clear patchy	overcast	drizzle	shower	2-4	94
iological eleme		to to to to to	ime	sex	 _ _ _ nui	mbers .	
Pompillid Other inse	Apio	Scoliids \ Scoliids \ OP - Exp	Sph	ecids \	Chrysidid Lembra Latte	s	pheria allos

Date 8/17/00 Time 5 to 1155	Job Sc/2 19
Miles 162631 Location Biologists 1640 Survey for: 155	
Biologists [Co45]	
Survey for:	
Habitat Assessment for:	
Weather: Temp 35 Wind 0 Clo	oud cover O Rain
Biological elements:	
Vegetative communities:	
Soil type	
Plant species:	
Vertebrates	
Arthropods	
Oak Woodlands Riparian Veg type Vernal Pools	
Comments:	

urveyor /	<u>D</u>	Survey Partne	r(s)	(PL			
Overall Mileage	2252	25.6					
Veather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (F)
Start 0,00	0	glear patchy	overcast	drizzle	shower	Calm	011
		clear patchy	overcast	drizzle	shower	courr	77
		clear patchy	overcast	drizzle	shower		
Stop 2:00	0	clear patchy	overcast	drizzle	shower	1 -	90
7.0		Cita pateny	Overeast	ditzzie	SHOWEI	1-2	18
te#	Time					Mileage on	gite
100	10	1:00 to	12:0	00		225	
10W	- 1	12:05 to	2,0	0		275	
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	nidas termi	to to to to natus?t				mbers	
Rhaphionther arthropods	(general)	to t	A	silids _		mbers	
Rhaphion ther arthropods Mydids	(general)	to t	A	asilids _	4		
ther arthropods Mydids Pompillids	(general)	to t	A	asilids _	Chrysidid	S	
ther arthropods Mydids Pompillids Other inse	(general) Apioos	natus?t Bombyliids cerids Scoliids	A Spho	asilidsecids	Chrysidid	S	hypompille
ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note/	natus?t Bombyliids cerids Scoliids	Spho	asilids	Chrysidid Aoner	S_W_ Zac	01 1
ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note/	Bombyliids cerids Scoliids	Spho Copio	asilids _ ecids _ // Cloudy	Chrysidid Aoner	S Exiconum 12, Clmop	01 1
Rhaphion ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note	natus?t Bombyliids cerids Scoliids	Spho Copio	asilids _ ecids _ // Cloudy	Chrysidid Aoner	S Exiconum 12, Clmop	01 1
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her arthropods Mydids Pompillids Other inse	(general) Apioos cts of note/ Charles Tele	Bombyliids cerids Scoliids Ocamphi	Spholary Vay	Asilids	Chrysidid Amen Market atterna	S_W_ Jac Exiconum S_ Clmop Callrola,	01 1
ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note/ Lus bir Tele a thurberi	Bombyliids cerids Scoliids	Sphe Sphe Copio	Asilids	Chrysidid Amen Market atterna	S_W_ Jac Exiconum S_ Clmop Callrola,	01 1

Surveyor Rick Overall Mileage Weather: Time (24 hr) Start / 2 - 50 pm Stop / 1 / 0 pm Site #	% Cloud	clear patchy clear patchy clear patchy clear patchy	Sky overcast overcast overcast overcast	drizzle drizzle drizzle drizzle	shower shower	Winds (mph) 3-4	Temp (
Overall Mileage Weather: Time (24 hr) Start /2-50 pm Stop / 1/0 pm	% Cloud	clear patchy clear patchy clear patchy clear patchy	Sky overcast overcast overcast	drizzle drizzle drizzle	shower shower		
Weather: Time (24 hr) Start / 2 - 50 pm Stop / 1 / 0 pm	% Cloud	clear patchy clear patchy clear patchy clear patchy	overcast overcast overcast	drizzle drizzle drizzle	shower shower		
Time (24 hr) Start / 2 - 50 pm Stop / 1 / 0 pm	O Time	clear patchy clear patchy clear patchy	overcast overcast overcast	drizzle drizzle drizzle	shower shower		
Start /2-50 pm Stop / 1 /0 pm	O Time	clear patchy clear patchy clear patchy	overcast overcast overcast	drizzle drizzle drizzle	shower shower		
Stop / _ /0 pm		clear patchy clear patchy clear patchy	overcast overcast	drizzle drizzle	shower shower	3-4	900
Site #		clear patchy	overcast	drizzle	shower		
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Site #			overcast	drizzle			
					shower	3-4	95
		to	1:10	pчn	_	Mileage on s	
	+	to			-		
	7	to			_		
		to			_		
	1	to_			_		
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	1	to_			_		
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		to			_		
Biological elemen Rhaphiom		<i>natus</i> ?ti	me	sex _	nun	nbers	
Pompillids	,Apio		Sphe	(Chrysidids	1 Agapos remon t	e vana
Plants: Croton Eriogonum Camissonia Others:	thurberi _ !;	graph weed other EriEriastrum _	iogonum		num fascic Oenoti	ulatum hera	

Delhi sands flov	ver-loving	fly - General	Form				
Date 8-19-0	6 Over	all Time 10	00-	-1:287		Jobs 5	CE
Surveyor A			100				
Overall Mileage	225	2600-	-2	251	63,9	7	
Weather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (F)
Start 10:00	0	clear patchy	overcast	drizzle	shower	alm	89
		clear patchy	overcast	drizzle	shower		1
		clear patchy	overcast	drizzle	shower		
Stop 1,28	0	clear patchy	overcast	drizzle	shower	1-2	95
Site # 1	nts:	10:00 to 11:05 to 2:08 to 2:08 to 2:08 to to to to to to	11150	28		225 2252 2252 2252	260,0 261,4 261,6 62,2
Pompillids Other inse	Apio cts of note Ephosis Tele thurberi	Scoliids Scoliids - Pyr aboliant	Spholing Sph	Pollse H - G	Chrysidid Chrysidid	- Benerix,	melonopler
Vertebrates:							

Miles Biologists Crica Pana Weather: Temp & 6.2 Wind Calm Cloud cover Ool Rain Ool Shocked Shocked College of the Shocked College of th			0 10 1.	330	Job _ 8
Weather: Temp & ל. ב Wind Color Cloud cover O't Rain O's Swellers Contents: שמחול בשל היי בי ב	Diologists	0.14			
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Comments: volutions mitaline syllidad in the sex in	Weather: Ter	mp 86.2 Wind	calm WCollebize	Cloud cover _(Pain Rain
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Syllidar Grains Grai	wine my	tability			
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Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others: Vertebrates spirm. but oud calgett	Other at	runropods (general)	Rombyliid	de Acilia	le.
Plants: Croton Telegraph weed Eriogonum fasciculatum _ Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others: Vertebrates spirm. bush. uti odo calgeti	Other a	rthropods (general) Mydids Apic	Bombyliio ocerids	ds Asilio	ls
Plants: Croton Telegraph weed Eriogonum fasciculatum _ Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others: Vertebrates		Mydids Apic	ocerids	Sphecids	
Vertebrates Spim. Such. Util Tolo Califold Califold Califold		Mydids Apid Chrysidids	Mutilids	Sphecids Scoli	ids
Vertebrates Spim. Such. Util Todo The EriogonumOenothera Others: Vertebrates Spim. Such. Util Todo The Calgati		Mydids Apid Chrysidids	Mutilids	Sphecids Scoli	ids
Vertebrates spim. built. util rodo rthe mode calzet		Mydids Apic Chrysidids	Mutilids	Sphecids Scoli	ids
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		all Time				Jobs	
urveyor <u>Pick</u>	Rogers	Survey Partne	er(s) Ale	x Vaca	m Site	9 only)	
verall Mileage							
Veather:							
Time (24 hr)	% Cloud	Entrance en	Sky			Winds (mph)	Temp (F)
Start 10:30	0	clear patchy	overcast	drizzle	shower	Imph.	85+
		clear patchy	overcast	drizzle	shower	7.	
		clear patchy	overcast	drizzle	shower		
Stop Q=45	0	clear patchy	overcast	drizzle	shower	2-3	103°
ite#	Time					Mileses	-14-
9A			10:4	0		Mileage on	site
12		2:40 to		5	_	-	
12		1: 45 to		5			
	1	to	,		7		
	300	to_					
	1	to_					
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	1	to_ to			_		
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iological eleme							
Rhaphion	nidas termii	natus?t	ime	sex	nun	ibers .	
-	-						
her arthropode	(ganoral)	Dombalita.	/ .				
mer artifiopous	(general)	Bombyliids L	- A	silids _	<u> </u>		
Mydide 1	Aplot	Scoliide	spne	cids -	71	-	
Mydids 1	-1	17-1/2 CHA (TECH	111-		nrysidids		
Pompillids	CIS OF DOTE	VIHA UND MOY	Micro	author	shora sp	· (Sun- B.20)	
Mydids 1 Pompillids Other inse	cis of note	bousing Iran	1				DOTO MARVICA
Pompillide Other inse	dus Durit	warines / (or	revie 6:	cornuta 1	1 Comps	mens Toltpea/	CPSIS MCTICAL
Pompillide Other inse	exclamar	s/Thridant	ceris 6; hvax atv	ala/Ta	chypompi	les unicolor/Ho	pliandes diversi
Pompillide Other inse Nemony polistes Haplome	exclaman linus alb	otomentosus	hvax atv	aln/Ta	chypornei	les unicolor/Ho;	pliedos divers
Pompillide Other inse Nemony polistes Haploma	exclaman linus alb	otomentosus	hvax atv	Eringov	um fascio	les unicolor/Ho	pligidos diversi
Pompillide Other inse Nemony polistes Haplome lants: Croton Eriogonum	exclaman exclaman exclaman exclaman Telegon thurberi	ctomentosus graph weed other Er	riogonum	Eriogon	um fascio	les unicolor/Ho	pliesdos divers
Pompillide Other inse Nemomy Polistes Haploma lants: Croton Eriogonum Camissoni	exclaman exclaman elinus alb Telega thurberi	graph weed other Eriastrum	riogonum	Eriogon	num fascic Oenoth	les unicolor/Ho	oligidos diversi

Delhi sands flow	er-loving	fly - General	Form				
Date 8-20-60	/ Over	rall Time 10;	00-11	45		Jobs S	CE
Surveyor AV	D -	_ Survey Partne	er(s)	Ro	7.9		
Overall Mileage	225	279-2	250	295	8		
Weather:	- 3						
Time (24 hr)	% Coud		Sky			Winds (mph)	Temp (F)
Start 10,00	0	clear patchy	overcast	drizzle	shower	alm	85
		clear patchy	overcast	drizzle	shower		
	-	clear patchy	overcast	drizzle	shower		
Stop 1:45	0	clear patchy	overcast	drizzle	shower	3	103
Biological elemen	its:	4		, /	nu	Mileage or 225 225 225 225 225 225 225 225 225 22	281.7
Plants: Croton	Apio	Scoliids Scoliids Ficornula placiblese	Sphe	to to see	Chrysidid Les, Hopl	Pepsis 1 compans de	Delicano Delipongila Intoherina

Delhi sands flower-loving fly - General Form

Date Aug 21 200	Date Aug 21 2006 Overall Time				Jobs				
Surveyor Rick	Rogers	Survey Partne	er(s)						
Overall Mileage	0								
	Harris								
Weather: Time (24 hr)	% Coud		Sky		Winds (mak)				
Start /2:55	0	clear patchy	THE DISCUSSION OF THE PARTY OF	shower	Winds (mph)	Temp (F)			
,	0	clear patchy	overcast drizzle			97			
		clear patchy	overcast drizzle						
Stop / : 15	0	clear patchy	overcast drizzle			96			
Site #	Time								
			1:15		Mileage on s	site			
	1	to	1 - 10	_	14010	/			
	1	to			-				
	1	to							
	4	to							
	1:	to							
		to							
		to							
	1	to							
		to				× .			
		to							
D	1			_					
Biological elemen	nts:								
Rhaphion	iidas termii	natus?	time sex	nur	mbers				
-									
Other arthropods ((general)	Rombyliide	Asilia						
Mydids	/ Anio	rerids	Asilids _ Sphecids _	_					
Pompillids		Scoliide		Ch 1: 1: 1	_				
Other insec	cts of note	Ma da /	us pantherin	Chrysiaia	s				
	-10 02 11010	Namomyd	as pantherin	us (larg	2)				
	1								
Plants: Cuatan	Tala	11	-						
Plants: Croton_	thurbani	graph weed	Eriogoi	num fascio	culatum				
Caminania	muroeri_	other E	riogonum	Oenot	hera				
Othere	-	Eriastrum							
oulers.	- 1								
-	,								
ertebrates:									

Surveyor Al	Over	Survey	Partne	er(s)	26		Jobs_SC	
Overall Mileage	225	316	0					
Weather:								
Time (24 hr)	% Cloud			Sky			Winds (mph)	Temp (F)
Start 10:00	0	Clear	patchy	overcast	drizzle	shower	1	86
		clear	patchy	overcast	drizzle	shower		04
100 0		clear	patchy	overcast	drizzle	shower		
Stop 1:26	0	clear	patchy	overcast	drizzle	shower	Colm	100
ite#		0100		1/100			Mileage on 2253	site
		11:05	to_	1210	4	_	22571	7,3
3	1	12:0	4 to	12:12	4	-	2253	7.5
	2:300	-	7 to	1:00	- /	_	225318	200
(e		06	to_	1:26		_	22 53	18. 1
	1		to_					. 1 . 1
	1		to_			_		
	+		to_			_		
	+		to_		-	-		
ological elemen		natus ?	ti	me	sex	nun	nbers	
					50%	nun	ibers	
	general)	Bombyl erids	iids _		silids_	_		
her arthropods (Mydids			Land Street		cids _			
Mydids	ts of notel		mouse	11/11/	JAMEN	parkou	INI Denne	1. 11
D :::::	ts of note les me	Comops have 5	12	Sean of	pherio	albolo	Dun,	- atto
Mydids Pompillids Other insect 2 - Ren 3 - Vil	ts of note of the mole of the	Comogs has 5 esi 5-	12 c	xopro	sopa	allolo	Benlis ans	la_
Mydids	6— Teleg	raph we	ed her <i>Eri</i>	P	Eriogoni	metil	le sp.	da_

Delhi sands flower-loving	fly - General Form		
Date 8-22-06 Over	rall Time 10:00 - 2:06	Jobs SC	E
	Survey Partner(s) R		
Overall Mileage 2/9	5754 225352.	0-2253	54.0
Weather:			
Time (24 hr) % Cloud	Sky	Winds (mph)	T (1)
Start 10:60 0	clear patchy overcast drizzle shower	Calm	Temp (F)
	clear patchy overcast drizzle shower	carre	25/10/
	clear patchy overcast drizzle shower		
Stop 2:00	clear patchy overcast drizzle shower	1-2	103
ological elements:	0:00 to 12:00 2:10 to 2:00 to to to to to to to to to	Mileage on 2253 2253	352.0
Epheric all molitare molitare melisoda	Scoliids Sphecids Chrysidide	chile sp. 90 dypompilus 10W- ca, nemos exerus bis	Conicolor Conicolor Muka Muka outhur multima

Date 8124	06 Time 1030 to 1130 Job 8
The state of the s	Brian Drahe
Weather:	Temp 89. 6 Wind WC4.11.7 Cloud cover 10°L Rain 10°L Swe 3.3/1.2
Comments.	
- tabanus	1
Drylliage	
brahidan	o evil.
pilon to	n exilip
- Torus	
401765 (3	mythin J
	1 10
Biological el	omonto.
Diological el	ciments:
Knap	hiomidas terminatus?timesexnumbers
0.1	
Other	arthropods (general) Bombyliids Asilids
	Mydids Apiocerids Sphecids Scoliids Mutilids Scoliids
	Chrysidids Mutilids Scoliids
	MymerleontidsOther insects of note
Plants	Croton Telegraph weed Eriogonum fasciculatum
	Cenothera October Eriogonum Octobera
	Camissonia Eriastrum
	Others:
Verteb	rates
	hosp hofi rodo w. for livery
	spirm, such, ring coto
	sperm. buch. rshed cato

Start 10:00 and 0 clear patchy overcast drizzle shower calm/1 mph. 100° Stop 1:00 pm. 0 clear patchy overcast drizzle shower calm/1 mph. 100° Site # Time	Surveyor Rick	Rogers	Survey Part	mer(s) A/	ex Van	Dam (a only)	
Weather: Time (24 hr) % Coud Start (0.00 a.m. O clear patchy overcast drizzle shower calm 98° Clear patchy overcast drizzle shower calm 1 mph. 100° Stop \$\frac{1}{2} \cdot 00 \text{ patchy overcast drizzle shower} \text{ calm 1 mph. 100°} Stop \$\frac{1}{2} \cdot 00 \text{ patchy overcast drizzle shower} \text{ calm 1 mph. 100°} Stop \$\frac{1}{2} \cdot 00 \text{ patchy overcast drizzle shower} \text{ calm 1 mph. 100°} Stop \$\frac{1}{2} \cdot 00 \text{ patchy overcast drizzle shower} \text{ calm 1 mph. 100°} Stop \$\frac{1}{2} \cdot 00 \text{ to 10:45} \text{ Mileage on site 145 408} \text{ 15.40 8} \text{ 16.45 40 8} 1	, ,	0		101(0) 777			, vary	
Start 10 00 and 0 clear patchy overcast drizzle shower alm 98° Start 10 00 and 0 clear patchy overcast drizzle shower alm 98° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Mileage on site 145 4 0 8	Overall Mileage							
Start 10:00 and 0 clear patchy overcast drizzle shower alm 98° Start 10:00 and 0 clear patchy overcast drizzle shower calm 98° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Stop 1:00 pm 0 clear patchy overcast drizzle shower calm 1 mph 100° Mileage on site 145408 145408 145408 Stop 1:00 pm 10 clear patchy 100° Stop 1:00 pm 10 pm 100° Stop 1:00 pm	(N7 4)							
Start 10.00 a.m. O clear patchy overcast drizzle shower calim 98° clear patchy overcast drizzle shower calim 98° clear patchy overcast drizzle shower calim 100° Stop \$\frac{1}{2} \cdot 0 \text{ putchy overcast drizzle shower} \text{ calim 1 mph. 100°} Stop \$\frac{1}{2} \cdot 0 \text{ patchy overcast drizzle shower} \text{ calim 1 mph. 100°} Stop \$\frac{1}{2} \cdot 0 \text{ cost of 10:45} \text{ Mileage on site 145.40.8} \text{ 145.40.8} \text{ 10:45.40.8} \text{ 160:45.40.8} \		0 of 1		Colored to Color			Commission Commission and Commission	UNBOWN PROTEINS ASSESSED.
Clear patchy overcast drizzle shower Clear patchy overcast drizzle shower	The second secon	The second secon		Annual Control of the			Winds (mph)	Temp (F)
Clear patchy overcast drizzle shower Calim Imph 100"	Start 10:00 am	0	1		2 2 2	shower	calm	98°
Stop #:00 pm. O clear patchy overcast drizzle shower calm/1 mph. 100° Site # Time		-			drizzle	shower		
Time 10 00 to 0 : 45		+ .	clear patch	hy overcast	drizzle	shower		
Time 12	Stop 2 200 рм.	0	clear patch	hy overcast	drizzle	shower	calm/1mph_	100°
12	tta H	701						
to	THE STATE OF THE S			. 10. 11	_			
to	91	7				_	The state of the s	Control of the Contro
to t	7 A			-		_		
to	7	+ //			0	_	14541	08
to to to	-	+				_		
to		1				_		*
to		1				_		
to						_		
time sex numbers There arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note Scoliids Chrysidids Other insects of note Scoliids Chrysidids Other insects of note Scoliids Chrysidids Chrysidids Other insects of note Scoliids Scoliids Chrysidids Chrysidids Chrysidids Chrysidids Chrysidids Scoliids Scoliids Chrysidids Chrysidids Chrysidids Scoliids Sco		ake.	1	0				
Comissonia Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Eriastrum Eriastrum Eriastrum Eriastrum Eriastrum Eriastrum Eriastrum Evaluation Eriastrum Eriastrum Evaluation Eriastrum Evaluation Eriastrum Oenothera Eriastrum		3				-	_	
The sex numbers The sex n		1	t	0		_		
The sex numbers The arthropods (general) Bombyliids / Asilids / Apiocerids Sphecids / Chrysidids Other insects of note cerceris bicorn uta cerceris formerrubrum Eudochnerus spolistes apachus / Liris sq. Nemomydus parthernus Philairthus gibbosus Sphex ichneu moneus / Europaneris totreum Tachytes distincta Epeolus Sphex ichneu moneus / Europaneris totreum Tachytes distincta Epeolus Sphex ichneu moneus / Europaneris totreum Tachytes distincta Epeolus Sphex ichneu moneus / Europaneris totreum Tachytes distincta Epeolus Sphex ichneu moneus / Europaneris totreum Tachytes distincta Epeolus Sphex ichneu moneus / Europaneris totreum Tachytes distincta Epeolus Sphex ichneu moneus / Europaneris totreum Tachytes distincta Epeolus Sphex ichneu moneus / Europaneris totreum Tachytes distincta Epeolus Sphex ichneu Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum		1	t	to		=		
Other arthropods (general) Bombyliids Asilids Apiocerids Sphecids Chrysidids			t	to		_		
Mydids Apiocerids Sphecids Chrysidids Other insects of note Cercevis bicorn uta Carceris femerrubrum Eudochnerus spolistes apachus Liris sq. Nemomydus pantherinus Philanthus Gibbosus Sphex ichneumoneus Camponeris toltean Tachytes distincta Epoclus Sphex ichneumoneus Camponeris Camponeris toltean Tachytes distincta Epoclus Sphex ichneumoneus Camponeris Camp			t	to				
Mydids Apiocerids Sphecids Chrysidids Other insects of note Cercevis bicorn uta Carceris femerrubrum Eudochnerus sportistes apachus Liris sq. Nemomydus pautherinus Philauthus Gibbosus Sphex ichneumoneus Camponeris toltean Tachytes distincta Epoclus Spiadasiu sp. Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum			t	to	sex		mbers	
Mydids Apiocerids Sphecids Chrysidids Other insects of note Cercevis bicorn uta Carceris femerrubrum Eudochnerus spolistes apachus Liris sq. Nemomydus pantherinus Philanthus Gibbosus Sphex ichneumoneus Camponeris toltean Tachytes distincta Epoclus Sphex ichneumoneus Camponeris Camponeris toltean Tachytes distincta Epoclus Sphex ichneumoneus Camponeris Camp			t	to	sex	nu	mbers	
Mydids Apiocerids Sphecids Chrysidids Other insects of note Cercevis bicorn uta Carceris femerrubrum Eudochnerus spolistes apachus Liris sq. Nemomydus pantherinus Philanthus Gibbosus Sphex ichneumoneus Camponeris toltean Tachytes distincta Epoclus Sphex ichneumoneus Camponeris Camponeris toltean Tachytes distincta Epoclus Sphex ichneumoneus Camponeris Camp			t	to	sex	nu	umbers	
Other insects of note <u>cerceris bicorn uta farceris famerrubrum Eudodinerus se</u> polistes apachus Liris se Nemomindus pantherinus Philanthus gibbosus se Sphex ichneumoneus Camponeris toltean Tachytes distincta Epeolus se Diadasia sp. Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Rhaphion	nidas termi	t t natus?	time			ambers	
Other insects of note <u>cerceris bicorn uta / cerceris femerrubrum / Eudodyneeus se</u> polistes apachus / Liris se / Nemomydus pautherinus / Philauthus gibbosus / Sphex ichneumoneus / Camponeus tolteau / Tachytes distincta / Epeolus se Diadasia sp. / Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Rhaphion Other arthropods	(general)	natus?	time	Asilids	V	umbers	
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Rhaphion Other arthropods Mydids	(general)	natus?	time	Asilids _	<u> </u>		
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Rhaphion Other arthropods Mydids L Pompillids	(general)	natus? BombyliidsceridsScoliids	timeSph	Asilids _	Chrysidie	ls	
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Rhaphion Other arthropods Mydids L Pompillids	(general)	natus? BombyliidsceridsScoliids	timeSph	Asilids _	Chrysidie	ls	dodynervss
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Other arthropods Mydids L	(general)	natus? BombyliidsceridsScoliids	timeSph	Asilids _	Chrysidie	ls	dodyneruss
Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Other arthropods Mydids L Pompillids Other inse Polistes Sphex	(general) Apio cts of note apachus chneums	natus? BombyliidsceridsScoliids	timeSph	Asilids _	Chrysidie	ls	dodynerus s Gibbosus s
Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Other arthropods Mydids L Pompillids Other inse Polistes Sphex	(general) Apio cts of note apachus chneums	natus? BombyliidsceridsScoliids	timeSph	Asilids _	Chrysidie	ls	doclynerus s Gibbosus s Epeolus s
Camissonia Eriastrum	Rhaphion Other arthropods Mydids L Pompillids Other inse Polistes Sphex (Diadasia	(general) Apio s cts of note apachus spel	Bombyliids cerids Scoliids Cerceris b	timeSph.	Asilids _ lecids _ lecids _ lecids pa dus pa tolteur	Chrysidio	ds_ merrubrum/Ev s/Philanthus tes distincta/	dodynerus s Gibbosus Epeolus s
Others	Rhaphion Other arthropods Mydids L Pompillids Other inse Polistes Sphex Diadasia	(general) Apio cts of note apachus chneums Tele	Bombyliids cerids Scoliids Cerceris b Liris sq.	time	Asilids	Chrysidio	isEv servbrum/Ev servbrum/Ev ses listincta/	docknerus s Gibbosus s Epeolus s
	The arthropods Mydids L Pompillide Other inse Polistes Sphex Diadasia Plants: Croton Eriogonum	(general) Apio cts of note apachus Chneums Tele	Bombyliids cerids Scoliids Coveris b Liris sq. graph weed other	timeSpl. Spl. Spl. Spl. Nemonia	Asilids	Chrysidio	isEv servbrum/Ev servbrum/Ev servbrum/Ev servbrum/Ev servbrum/Ev	docknerus si Gibbosus i Epeolus si

	06 Over	rall Time 10.	00-	1:15		Jobs_SC	F
Surveyor AV	D	Survey Partne	er(s)	RR	on!	rite 9	
Overall Mileage _	21	-5382	0 -	22	539	6.4	
Weather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (F)
Start 10:00	0	clear patchy	overcast	drizzle	shower	1-colm	95
		clear patchy	overcast	drizzle	shower	7,000,00	7 3
0. 1/10		clear patchy	overcast	drizzle	shower		
Stop 15	0	clean patchy	overcast	drizzle	shower	1-2, calm	106
Site #	Time	0.0	101	1		Mileage on	site
TN.	+10	0100 to	101	26	_	2253	
60		1:45 to	10:	35	_	2253	
	+-1	to_to	1:15		_	22539	6.4
		to			_		
	i.	to	1		_	_	
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iological element		natus? +	ime	COV	-	1	
		natus ?t	ime	sex _	nu	mbers	
		natus ?t	ime	sex _	nu	mbers	
Rhaphiomic	das termi				nu	mbers	
Rhaphiomic	das termin	Bombyliids_	1/A	silids _	nu	mbers	
ther arthropods (g	das termin	Bombyliids _		silids _			
ther arthropods (g Mydids\ Pompillids_	das termin	Bombyliids cerids Scoliids	Sphe	silids _	hrvsidid		
ther arthropods (g	das termin	Bombyliids cerids Scoliids Ia - Nem	Sphe	silids	Chrysidid	S	un ariles.
ther arthropods (g Mydids\ Pompillids_	das termin	Bombyliids cerids Scoliids Ia - Nem	Sphe	silids	Chrysidid	s_ Common bro	un asilib.
ther arthropods (g Mydids\ Pompillids_	das terminates deneral) Apioo	Bombyliids _ cerids _ Scoliids _ IA - Men Use, Mu	Sphe	silids	Chrysidid Cherinu Cerce Lla ma	s_ Common bro crus femered	mo gilosu
ther arthropods (g Mydids\ Pompillids_	das terminates deneral) Apioo	Bombyliids _ cerids _ Scoliids _ IA - Nem Isol, Michael Milotus	Sphe Sphe	silids cids cids close	Chrysidid Cherina Cerca Ma ma	S_ Common bro Crus femered Lista Philand	mo gilrosu
ther arthropods (g Mydids\ Pompillids Other insects Thiling African Ilants: Croton	eneral) Apioo	Bombyliids cerids Scoliids IA - Nem Idae, Mus Wilshus Musine in Ua Congraph weed	Sphe Sphe Sphis	silids	Chrysidid Cherina Cerce La ma	S_ Common bro Prus femured distan Philand Op, anthople	mo gilosue ana withon
ther arthropods (g Mydids Pompillids_ Other insects Thiling In the property of the prop	eneral) Apioo s of note Meloi this very Teleg	Bombyliids cerids Scoliids IA - Nem Idae, Mus Wilshus Musine in Ua Congraph weed	Sphe Sphe Sphis	silids	Chrysidid Cherina Cerce La ma	S_ Common bro Prus femured distan Philand Op, anthople	mo gilrosue
ther arthropods (g Mydids _\ Pompillids Other insects film film	eneral) Apioo s of note Meloi this very Teleg	Bombyliids	Sphe Sphe Sphis	silids	Chrysidid Cherina Cerce La ma	S_ Common bro Prus femured distan Philand Op, anthople	mo gilosue ana withon
ther arthropods (g Mydids Pompillids_ Other insects Thiling In the property of the prop	eneral) Apioo s of note Meloi this very Teleg	Bombyliids cerids Scoliids IA - Nem Idae, Mus Wilshus Musine in Ua Congraph weed	Sphe Sphe Sphis	silids	Chrysidid Cherina Cerce La ma	S_ Common bro Prus femured distan Philand Op, anthople	mo gilosue ana withon

	wer-loving	fly - General	Form				
Date 8-24-0	06 Over	all Time 16	5-00	00		Jobs S	CE
Surveyor AV	10 -	Survey Partne	er(s)_ /	RR			
Overall Mileage	13	9715.7	-1	39	717.	6	
Weather:							
Time (24 hr)	% Cloud	用語為對於數學	Sky			Winds (mph)	The Control
Start 10:00	0	(clear) patchy	overcast	drizzle	shower	calm	Temp (F)
		clear patchy	overcast	drizzle	shower	0-000	19
		clear patchy	overcast	drizzle	shower		
Stop 2:00	0	clear patchy	overcast	drizzle	shower	1-2	100
Site#	Time						100
Biological elemen	nts:	2 / / / to	12 to			## ## ## ## ## ## ## ## ## ## ## ## ##	1/,6
Pompillids Other insec	Apioc ets of note	erids Scoliids Repoliploca Recontese 2 Compsom Lue ne	Sphe	miro eno, tolto	Parnope	nopogon, 26 se Petronos Nemonydos so nus grilla	hysphan, Baymuls molitor

Miles 2	24325 Time 10/00 to 2:00 Job SCE
Biologists Weather: T	emp 95-106 Wind 3-10 Cloud cover 0 Rain 0
Comments:	Cotinus Alexanus Bembie of. Ribal op various spherits Jones Personal libal.
4	
Biological ele	ements:
	hiomidas terminatus?timesex numbers
Other	arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids
	Chrysidids Mutilids Scoliids Mymerleontids Other insects of note
Plants:	
	Croton Telegraph weed Eriogonum fasciculatum _ Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:

Date Avy 26, 200	6 Over	all Time <u>20</u>	miu.		Jobs Site	11 Edison
Surveyor Rick	Rogers	Survey Partne	er(s)_			
Overall Mileage	-					
Weather:						
Time (24 hr)	% Coud		Sky	Shirt Harry	Winds (mph)	Town (D)
Start /2:50	0	clear patchy	overcast drizzle	shower	2 - 3	Temp (F)
		clear patchy	overcast drizzle	shower		72
		clear patchy	overcast drizzle	shower		
Stop /: 15	0	clear patchy	overcast drizzle	shower	3 mph.	95°
Site #	Time				Mileage on	
//	12		1:15		1459	
	+	to_				
	7	to_		_		
	1	toto_		_		
		to		_		
	+	to_		_		
	1	to_		_		
	-	to_		_		
	-	to_		_		
	1	to_		_		
Biological elemen	ts:					
Rhaphiom	idas termin	natus ?ti	ime sex	nun	nbers	
	,Apioc	erids	Sphecids		_	
Culorio	ts of note_ u_arave	Cerceris b	Tronge to 15	vafyner	ussp./Ammop	hilu a bertil
Plants: Croton	Teleg	ranh waad	г.			
Plants: Croton	hurbari	rapii weed	Eriogon iogonum	um fascici	ulatum	

		erall Time <u>LC</u> _ Survey Partn				Jobs S	
verall Milea	ige 139	748.5 -	139	75	3.5		
Veather:	ŀ			-			
Time (24 hr)	WINDSHIP TO THE PROPERTY OF THE PARTY OF THE	THE REAL PROPERTY OF THE PARTY	Sky			Winds (mph)	Temp (F)
Start 10%	6 0	clear patchy			shower	colm	87
		clear patchy			shower		1
top 1/5	X A	clear patchy	A CONTRACTOR OF THE PARTY OF TH		shower		
/		blear patchy	overcast	drizzle	shower	1-2	98
ological elen		11:39 to 11:47 to 2:50 to to to to to	/ 6 6	sex_		1397 1397 1397	51.7
Mydids Pompilli Other in H-1 Brain Ints: Croton Eriogoni	Apio ds Apio ds Sects of note Section Sects of note Section Sect	Bombyliids Scerids Scoliids 65 - Michael Scoliids Manageria Janes	Sphe Neod 1	iploco Igra Cor p Eriogoni	hrysidids 5-Rem mpto a mpto a mpto a	france,	grionthax a serus talleca nongo para

Date 8126 Miles	10L Time 1230 to 1330 Job 8
	Brian Dranc
Comments:	Femp 89.2 Wind Swerzy Octoud cover O'1 Rain Swerzy 14.7
brighidiun	1) 1) 1) 1) 1) 1)
- orbinata	
Carrier or	773118
do (m) Li A	w
	arthropods (general) Bombyliids Asilids
	Mydids Apiocerids Sphecide
	Mydids Apiocerids Sphecids Scoliids
	Mymerleontids Other insects of note
	Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera
	Others:
Vertebr	ates
	spirm. buch. hof;
	Spirm. buch. hof;
	ute cthal

Delhi sands flower-loving fly - General Form

Weather: Time (24 hr)	24 00 1	The state of the s	Sold Comment of the C	Market Baseline			
Start 10:30 au	% Cloud		Sky			Winds (mph)	Temp (F)
10230 au	_0	clear patchy	overcast	drizzle	shower	luph.	92°
		clear patchy	overcast	drizzle	shower		
Stop 1:25 am	0	1	overcast	drizzle	shower		
I na on	<i>Q.</i>	clear patchy	overcast	drizzle	shower	1-2 mph	103°
iological elemen		to	me	sex		bers .	
ther arthropods (Mydids / Pompillids Other insect Plabeiy4	Apioo	serids	Sphe Mynd	enthrax estem	Chrysidids atvata/	Nemomydus P ontris Eucerc of tolteral Dusy	antheninus/ evis insignis/ emerilla coccino

Delhi sands flower-loving fly - General Form		
Date 8-27-06 Overall Time 10:00 - 1:30	Jobs Si	CE
Surveyor AVD Survey Partner(s) RR on pite	2 Yorky	
Overall Mileage 139772, 8 - 139788.	8 0	
Weather:		
Time (24 hr) % Cloud Sky	Winds (mph)	Temp (F)
Start 0:00 Clear patchy overcast drizzle shower	calm	90
clear patchy overcast drizzle shower		10
clear patchy overcast drizzle shower		
Stop [36] O Gear patchy overcast drizzle shower	1-2	103
Site # Time	Mileage on	sito
10100 to 10136	1397	12.8
9 6N 10:46 to 11:26	1397	75,3
+ 11:45 to 1:30	13979	8.4
to		
to		
to to	-	
to	-	
to		
to		
to		
Biological elements:		
Rhaphiomidas terminatus ?timesex nu	mbers	
ther arthropods (general) Bombyliids Asilids	_	
Mydids Apiocerids Sphecids Chrysidid		
Citysiuid	s	. //
Other insects of note 19- repiscent ap	tengorgon, Vi	Mass.
9- EUROPEONIA COSINOVILLA, EP	hour Lygit	A gayopholas
Mentilabria, Doumution , Tensis ma	a white	Philasthus 1
Conspilace. many 2019/	Mario, Cam	soonery tollec
lants: Croton Telegraph weed Eriogonum fasto	culation B	roupenta
Eriogonum thurberi other Eriogonum Oenoi	hera	
Camissonia Eriastrum		
Others:		
tebrates: Riman / 1	1./1/	
your warmen are many many	eaco worth	agrh

ate Avy 28, 2	006 Over	rall Time				Jobs <u>site</u>	//
urveyor Rick	Roger	Survey Partne	er(s)				,
			(5)				
erall Mileage							
eather:							
Time (24 hr)	% Cloud		CI.			THE CONTRACTOR OF THE PROPERTY.	I sentence and a sent
art /2 - 50	O	clear patchy	Sky	delen-le		Winds (mph)	Temp (
1- 50	0	clear patchy	overcast	drizzle	shower		
		clear patchy	overcast	drizzle	shower		
op 1 = 10	0	clear patchy	overcast	drizzle	shower		
. 1 - 10	0	patchy	overcast	drizzle	shower		
e #	Time					Milenge	alt.
//	1/2	:50 to	1:10			Mileage on	site
		to	7.70		_	-	
	1	to					
	-	to_					
	+	to_					
	+	to_			_		
	7	to_					
	-	to_			_		
	-	to_			_		
	-	to			_		
	4				_		
logical elemer	its:						
Rhaphiom	idas termi	natus?ti	ime	sex	nun	nhers	
						docts	
-							
er arthropods (general)	Bombyliids _					
Mydids	Apio	cerids	Sphe	cids V			
Pompillids		Scoliids		C	hrysidids		
Villa / on	is of note	Ammophila	- Sp. / F	1 mm of	shila at	exti/Bembs	comata .
Villa/ M	O (TOY						7
	,						

			1/10	16.9			
Veather:							
Time (24 hr	PROPERTY OF THE PROPERTY OF THE PARTY OF THE		Sky			Winds (mph)	Temp (F)
Start 10;0	0 0	clear patchy	overcast	drizzle	shower	Calm	90
		clear patchy	overcast	drizzle	shower	CASSIII	
Stop 1:3	0 0	clear patchy	overcast	drizzle	shower		
Stop 1:3	0 0	clear patchy	overcast	drizzle	shower	2-35-calm	4
te # _ C	Time					Ma	
ite#65	1 1	101106	16:2	0		Mileage on	
5,	1	10:28 to	10:5				12.3
3	* 1	1:08 to	11:2			13981	14 2
2		11:32 to_	11:37	7	_	13981	
	1	12:40 to 12:30to	1/2 12	:25	_	1398	15.2
	1	to	1:30	7	_	1398	16.9
	•	to			_		
		to			-		
		to			_		
	-						
	+	to_					
ological ele	ments				-		
ological eler	ments:	to	ma				
ological eler	ments:	to	me	_ sex _	nun	nbers	
ological elei Rhaph	ments: iomidas termin	to	me	_ sex _	nun	nbers	
Rhaph	iomidas termin	toti	me	_ sex _	nun	nbers	
Rhaph.	ds (general)	toti	As	silids	nun	nbers	
Rhaph.	ds (general)	toti		silids	nun	nbers	
ner arthropo Mydids Pompill	ds (general)	Bombyliids erids Scoliids	As	silids cids	hrysidids	_	
ner arthropo Mydids Pompill Other in	ds (general) Apioc	Bombyliids erids V Scoliids	As Spheo	silidsC	hrysidids	-	apixera op
ner arthropo Mydids Pompill Other in	ds (general)	Bombyliidsti ScoliidsScoliids	Spher Mae, J	silids	hrysidids	-	apixera pp
ner arthropo Mydids Pompill Other in	ds (general) Apioc	Bombyliidsti ScoliidsScoliids	As Spheo	silids	hrysidids	-	apixera sp Jachytese a
ner arthropol Mydids Pompill Other in Bem	ds (general) Apioc lids Assects of note	Bombyliids erids Scoliids GS - Muloi	Spher Mae, J Mony,	silids	hrysidids	-	apixera sp Jachytese a anthony add
ner arthropo Mydids Pompill Other in Bem	ds (general) Apioc lids assects of note Charles Teleg	Bombyliids erids Scoliids GS - Moloi	Spheridae, Joname	silids	hrysidids	altrat 5- Jagyra sp	apixera sp Jackytle 2
ner arthropo Mydids Pompill Other in Bem	ds (general) Apiocolids Apiocolid	Bombyliids erids Scoliids GS - Moloi	Sphere Sp	cidsChyrida hyrida Nma, riogom	hrysidids	altrat 5- Jagyra sp	apixera op Jachytele a outhloss add

Delhi sands flo	wer-loving	fly - General Form	ı			
Date 8-29	06 over	all Time 10/0	0-2:	00	Jobs_S	CE
Surveyor A	VP	Survey Partner(s)_	RR	S		
Overall Mileage	139	841,8-				
Weather:						
Time (24 hr)	% Cloud	S	ky		Winds (mph)	
Start 10:00	0	elear patchy over	A STATE OF STREET, SANS	e shower	Calm	Temp (F)
		clear patchy over	cast drizzl		covir)	99
		clear patchy overc	east drizzl	e shower		
Stop		clear patchy overc	ast drizzle	e shower	1-2	1-7721
Site#	Time					TUT
10e		0:00 to 12:	00		Mileage on	841.8
MOI	+ .	10 10 to 2	180		139	843,9
	+	to			-121	01214
	-	to				
	1	to		_		
	1	to		_		
	+	to		_		<u> </u>
	1	to		_		
	1	to			-	
	-	to				
Biological elemen	ts:					
Rhaphiom	idas termin	atus?time _	CON	202010	1	
	*	time_	sex	nun	nbers	
Other author 1	1					
Other arthropods (g Mydids	general)	* *	_Asilids _			
Pompillids	Apioc	Scoliids Scoliids	phecids_		- , - 4	arria clanota.
	s of note(0)	Melicia so,		Chrysidids	1 8	accha clanda,
Conopile	Me Phi	1 4		Ex you		se elucitsi
meliood		anunua pr	years	1 Mile	withus mult	macufatus.
10W -	- 12	lumnsoma	Whiging	ayeras	milla m	May Sengergon 1
Dis o	Tatorio	Ramoses	odi	iandi	ogunaror,	my sp.
Plants: Croton	Teleg	raph weed	_ Eriogon	num fascici	ulatum	
Camissonia	nurberi	other Eriogoni	ım	Oenoth	era	
Others:	8	_ Eriastrum				
	4					
ertebrates:						

Date 9/29/56 Time 1030 to 1130 Job 8	
Biologists Brian Dranu	
Weather: Temp 38.9 Wind NNCO91. Cloud cover 106 Rain_ 58. SWC2.113.7 106	
popular plonatal potinos mutisilis pryllidace	
Loting murising	
formicidae	
musuw domosticu	
timustapis	
precios coinia	
· · · · · · · · · · · · · · · · · · ·	
Rhaphiomidas terminatus?timesexnumbers	-·
Other arthropods (general) Bombyliids Asilids	
Mydids Apiocerids Sphecids	
Citystatas Mutilias Scoliide	
MymerleontidsOther insects of note	
Plants: Croton Telegraph weed Eriogonum fascicula Eriogonum thurberi other Eriogonum Oenothe Camissonia Eriastrum	era
Others:	
Vertebrates	
spirm. buch., hot; rsher	
w. fru lizur alyptu	
-10	

		rall Time				Jobs 50	E
urveyor Kick	Kogers	Survey Partne	er(s) Alex	Van	Dam (site 9 only	7
verall Mileage							
Veather:		STATISTICS OF THE PARTY OF THE	Bayasaayaayaa				
Time (24 hr)	% Cloud	The september	Sky			Winds (mph)	Temp (F)
start 10:30	0	fear patchy		drizzle	shower	1 miph	90°
		clear patchy		drizzle	shower		
top 2:00	_	clear patchy		drizzle	shower		
top & see	0 /	clear patchy	overcast (drizzle	shower	1-2 mph	105°
te#	Time					Mileana	**
12 9A	1	0:35 to	11:20			Mileage on	
			11:30		_	1465	7/
9	1	1:35 to_	1:35				
	+	to_	-				
	+	to_			_		
	1	to_		_	-		
	7	to_		-	_		
		to			-		
	1	to			_	-	
	+	to_					
ological elemen	ts:						*
		natus ?ti	me	COV		. h	
				_ sex _	nun	ibers	
	į						
			/		/		
ner arthropods (general)	Bombyliids <u>V</u>			_		
Pompillids	Apio	cerids	Spheci	-			
Other insec	ts of note	Scoliids		C	hrysidids		
Dolistes A	excla-	(acuytos d)	stincta	Hop	lisoides	diversus/Evoc	tyneris sp.
Cerceris	bicormit	a / poisses	apacuve to	160	POPALES	Sp./Anoplus Hus vertilabn	5 Sp./
		7,000	-Ceris ly	TIERA	Knaiaut	nus ventilabn	s/ Comopi
ints: Croton	Teleg	graph weed	Er	iogoni	ım fascici	ulatum	
Eriogonum Camissonia	inurberi _	other Eri	ogonum		_ Oenoth	nera	
Camassonia		Eriastrum _					
Others:		_		_			

	overall Time / Qoo - 1 ? C		Jobs 5	
urveyor AVD	Survey Partner(s) RR	on 90	mld.	
verall Mileage 13	39865.9-1398	78,	5	
eather:				
Time (24 hr) % Co	oud Sky		Winds (mph)	Temp (F)
tart 10:00	clear patchy overcast drizzle	shower	Calm	89
	clear patchy overcast drizzle	shower		01
	clear patchy overcast drizzle	shower		
top 1:00 0	flear patchy overcast drizzle	shower	1-2	105
te# _ Ti	1			100
"6N	me 1/2'00 to 1011-		Mileage on	site
9 +	10:00 to 10:40	_	1398	65.9
	to 1100		1398	18.5
	to	_		
	to	_		
	to			
	to		(6)	
	to			
	to			
	to	_		
	to	_		
ological elements:				
Rhaphiomidas ter	rminatus?time sex	nıır	mhers	
1			·	
		. /		
er arthropods (general				
er arthropods (general MydidsA	pioceridsSphecids	1		
er arthropods (general MydidsA	piocerids Sphecids Sphecids	Chrysidids	S	
mer arthropods (general MydidsA) Pompillids Other insects of no	piocerids Sphecids Scoliids Scoliids	Chrysidids	sa Philan	
er arthropods (general MydidsA	Scoliids Sphecids Scoliids Sphecids Scoliids Sphecids Scoliids Sphecids Scoliids Sphecids	ota go	ca Philani	- Contain 1.
mer arthropods (general MydidsA) Pompillids Other insects of no	Scoliids Sphecids Scoliids Sphecids Scoliids Sphecids Scoliids Sphecids Scoliids Sphecids	da go	ca Philani Elisates po teca Philani	- Ephenagla
Pompillids Other insects of no Nendulal Conopulae	scolids Sphecids Scolids Scolids Ste 6 N - Compsoner Singliff pp, Compson Son political pp, Compson	ota gone	ca philan relisables po teca, Philant recur bicon	- Ephenagla
ner arthropods (general Mydids A Pompillids Other insects of no Mendulal Chopa Conocine Ints: Croton T	Scolids Scompoone Scompoone Scompoone Scompoone Scompoone Scompoone Scompoone Scompoone Scolids Scompoone Scompoone Scompoone Scompoone Scompoone Scolids Scompoone Scom	ota gone sol	co philani reur bicon	- Ephenagla
ner arthropods (general Mydids	scoliids Scoliids Scoliids Scoliids Scoliids Scoliids Scompoone Scompoon	ota gone sol	co philani reur bicon	- Ephenagla
ner arthropods (general Mydids	scolids Sphecids Scolids Scolids Ste 6 N - Compsoner Singliff pp, Compson Son political pp, Compson	ota grande sol	co philani reur bicon	- Ephenagla

	• Over	all Time2	9 min	-0		Jobs SC13	19
Surveyor _/Y	HO	Survey Partn	er(s)_				
Overall Mileage							
Sveran Mileage	2/						
Weather:							
Time (24 hr)	% Cloud		Sky	in the		Winds (mph)	Temp (F
Start //w	d	clear patchy	overcast	drizzle	shower	0	94
		clear patchy	overcast	drizzle	shower		
		clear patchy	overcast	drizzle	shower		
Stop		clear patchy	overcast	drizzle	shower		
Site #	Time					Mil	•.
19	_//		11=	19		Mileage on	
	_//	to			_	16362	7
		to			_		
		to			_		
		to			_		
	-	to					,
		to					
		to			_		
	_	to			_		
			<u> </u>		_		
		to	<u> </u>				
		to to					
		to		sex		mbers	
		to to		sex		mbers	
Rhaphio	midas termi	to to to	_time			mbers	
Rhaphion	midas termin	to to to to natus?	time	Asilids			
Rhaphion Other arthropods Mydids	(general)	to t	_time	Asilids _			
ther arthropods Mydids _ Pompillid	(general) Apiods	natus? Bombyliids cerids Scoliids	timeA	Asilids _	Chrysidid	s	
Other inse	(general) Apiools ects of note	matus ? Bombyliids cerids Scoliids	_timeA	Asilids _ ecids	Chrysidid	s	
Other arthropods Mydids _ Pompillid Other inse	(general) Apiools ects of note	natus? Bombyliids cerids Scoliids	_time	Asilids _	Chrysidid	s	
Other inse	(general) Apiools ects of note	matus ? Bombyliids cerids Scoliids	_time	Asilids _	Chrysidid	s	
Rhaphion Other arthropods Mydids _ Pompillid Other inse	(general) Apiools ects of note	matus ? Bombyliids cerids Scoliids	_time	Asilids	Chrysidid	S	
Plants: Croton	(general) Apiools ects of note	Bombyliids ceridsScoliids_	time	Asilidsecids	Chrysidid	s	
Plants: Croton_ Eriogonus	(general) Apiools ects of note Teles	Bombyliids ceridsScoliids	time Sph	Asilidsecids	Chrysidid	s	
Plants: Croton Eriogonus Camisson	(general) Apiools ects of note Tele	Bombyliids cerids Scoliids other E	fime	Asilidsecids	Chrysidid	s	

	Overa	all Time	3 min			Jobs SC15	19
rveyor //	HO	Survey Partne	er(s)				
			\ <u></u>				
verall Mileage	5/						
eather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (
tart //w	ď	clear patchy	overcast	drizzle	shower	0	
		clear patchy	overcast		shower		94
		clear patchy	overcast		shower		
top	1	clear patchy			shower		
		view pareny	Overcast	dilzzie	SHOWEI		
te#	Time					Mileage on	site
19	_//	to_to_	112	19		16362	
		to.					
		to_					
	×	to_			_		
		to_			_		
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		to_				-	
		to_			_		
	-	to_			-		
	-	to_			_	-	
		10					
	-						
ological eleme	ents:				_		
		natus?	time	sex	— nui	mbers	
		natus?t	time	sex	nu	mbers	
		natus ?t	time	sex	nu	mbers	
Rhaphio	midas termi					mbers	
Rhaphion and arthropods	midas termin	Bombyliids	Δ	Asilids			
Rhaphion and arthropods	midas termin	Bombyliids	Δ	Asilids			
ner arthropods Mydids Pompillid	g (general) Apiods	Bombyliids _ cerids _ Scoliids	A	Asilids _	Chrysidid		
ner arthropods Mydids _ Pompillid Other inse	(general) Apiools ects of note	Bombyliids _ cerids _ Scoliids _	A	Asilids _ ecids(Chrysidid		
ner arthropods Mydids _ Pompillid Other inse	(general) Apiools ects of note	Bombyliids _ cerids _ Scoliids _	A	Asilids	Chrysidid	S	
ner arthropods Mydids _ Pompillid Other inse	(general) Apiools ects of note	Bombyliids _ cerids _ Scoliids _	A	Asilids	Chrysidid		
ner arthropods Mydids _ Pompillid Other inse	(general) Apiools ects of note	Bombyliids _ cerids _ Scoliids _	A	Asilids	Chrysidid	S	
ner arthropods Mydids _ Pompillid Other inse	(general) Apiools ects of note	Bombyliids _ cerids _ Scoliids _	A	Asilidsecids	Chrysidid	S	
ner arthropods Mydids Pompillid Other inse	(general) Apiods ects of note	Bombyliids _ cerids _ Scoliids _	Spho	Asilids	Chrysidid	s	
ner arthropods Mydids Pompillid Other inse	(general) Apiods ects of note Teles	Bombyliids _ ceridsScoliids _ graph weed _ other En	A Spho	Asilidsecids	Chrysidid	s	
ner arthropods Mydids _ Pompillid Other inse	(general) Apiods ects of note Tele	Bombyliids _ cerids _ Scoliids _ graph weed _ other En	Spho	Asilidsecids	Chrysidid	s	

Date 8-31-06						Jobs SC	E
Surveyor Al	/D+	Survey Partne	r(s)	LR			
Overall Mileage	225	610,1-	-2	2-51	612.		
Veather: Time (24 hr)	or of a		NO SERVICE DE LA CONTRACTION D	No. of the last		LOCATION STATE	
THE RESERVE THE PARTY OF THE PA	% Cloud		Sky			Winds (mph)	Temp (F)
Start 10:00	0	clear patchy	overcast	drizzle	shower	Calm	90
		clear patchy	overcast	drizzle	shower		
Ston O 1 -	8	clear patchy	overcast	0.00	shower		
Stop 2:06	0	clear patchy	overcast	drizzle	shower	1-2	99
ological elemen	ts:	to t	210	00			612.0)
Pompillids Other insect	Apioc ts of note place Jun Teleg thurberi	eridsScoliids	Sphe hypory dlas p	en g	Chrysidids Lenie L	solor, stenor	notion, Agento Dogon of merone Milyo merone materies

Date Seft 2, 26 Surveyor Pick A Overall Mileage Weather: Time (24 hr) Start 1/2 200 Stop 1 2 3 0 Site # 11 12 9 A	Coud O Time 12:	Survey Partners fear patchy clear patchy clear patchy clear patchy		drizzle drizzle drizzle drizzle	shower shower shower	Winds (mph) 1-2 mph,	Temp (F)
Overall Mileage Weather: Time (24 hr) Start /2 000 Stop / 230	% Coud O Time 12: 12:	clear patchy clear patchy clear patchy clear patchy clear patchy to	overcast overcast overcast	drizzle drizzle drizzle drizzle	shower shower shower	1-2 mph,	100
Start /2 200 Stop / 230 Site #	O Time /2:	clear patchy clear patchy clear patchy to to	overcast overcast overcast	drizzle drizzle drizzle drizzle	shower shower shower	1-2 mph,	100
Start /2 200 Stop / 230 Site #	O Time /2:	clear patchy clear patchy clear patchy to to	overcast overcast overcast	drizzle drizzle drizzle drizzle	shower shower shower	1-2 mph,	100
Stop / 230	O Time /2:	clear patchy clear patchy clear patchy to to	overcast overcast overcast	drizzle drizzle drizzle drizzle	shower shower shower	1-2 mph,	100
Site #	Time /2:	clear patchy clear patchy clear patchy to to	overcast overcast overcast	drizzle drizzle drizzle	shower		
Site #	Time /2:	clear patchy clear patchy to to	overcast overcast	drizzle drizzle	shower	1-2 mph	102
Site #	Time /2:	clear patchy to to	overcast	drizzle		1-2mph	102
11	Time /2:	100 to to	1289		shower	1-2mpn	100
11	12:	30 to		20			
Biological element Rhaphiomic		to t	1:30		nun	14703 14703	35
Other insects	Apioco	erids Scoliids Ammophila us Philanthus p	Spheros Spheros Spacification	polista		s/Stenopor	you breviscula

Surv	eyor A	VD!	Survey Partner(s)		Jobs Sc	
Over	rall Mileage	22	-5654.3-23	15658.	3	
Wea	ther:	9				
	me (24 hr)	% Cloud	Sky		Winds (mph)	Temp (F)
Start	10145	0	clear patchy overcast	drizzle shower	calm	100
			clear patchy overcast	drizzle shower		7.00
			clear patchy overcast	drizzle shower		
Stop	1:25	0	clear patchy overcast	drizzle shower	1-2	104
Site #	#	Time			Mileage on	sita
			0:45 to 11:45			54.3
-	3	1	10:50 to 1025	5	225	655.9
	4	1/2	2:00 to 12:2			56,6
	5	1		00		657.3
	63	1	305 to 1:25		225	658.3
		1	to			
		+	to			
_		+	toto			
			toto			
		+	tototo			
			toto			
Biolo	gical eleme	nts:	tototo			
Biolog		A.	to to to to to to to	sex nu	mbers	
Biolog		A.	tototo		mbers	
Biolo		A.	to to to to to to to	sex nui	mbers	
	Rhaphion	nidas termi	to	M	mbers	
	Rhaphion	(general)	to to to to to to to to to As	ilids_V	mbers	
	arthropods Mydids	(general)	to to to to to to to to Ascerids Sphece	ilids V	at.	
	arthropods Mydids Pompillids	(general)	to to to to to to to to to Ascerids Scoliids	ilids V	S	
	arthropods Mydids Pompillids Other inse	(general) Apio	to to to to to to to to to As cerids Scoliids - Slunilantle con	ilids V	S	appear 11 st
	arthropods Mydids Pompillids Other inse	(general) Apio	Bombyliids Ascerids Spheo	ilids V cids Chrysidid	s_ leveral special -	pp neobiplone
	arthropods Mydids Pompillids Other inse	(general) Apio	Bombyliids Ascerids Spheo Scoliids - Sunidarthy Anopses, S-Thy	ilids V cids Chrysidid chrysidid	s leveral spherid. - Sigura s - althora	Sorlix mela
	arthropods Mydids Pompillids Other inse	(general) Apio	Bombyliids Ascerids Spheo	ilids V cids Chrysidid chrysidid	s_ leveral special -	Benlix melan
Other	arthropods Mydids Pompillids Other inse	(general) Apio s cts of note	Bombyliids Ascerids Spheo Scoliids - Glynilasthy Anoples, 5 - Thy	ilids V cids Chrysidid altrala, A lisotese, L ridonth po	s leveral spherid - Sigura s - althora, l' ne,	pp a Neobiplone
Other milion	Rhaphion arthropods Mydids Pompillids Other inse	(general) Apio scts of note myse pa	Bombyliids Ascerids Spheo Scoliids S	ilids V cids Chrysidid chr	s_ leveral spherid - f - Sisyra s and colon	Bonlix melan
Other milion	Rhaphion arthropods Mydids Pompillids Other inse	(general) Apio s cts of note my pa Tele thurberi	Bombyliids Ascerids Spheo Scoliids - Glynilasthy Anoples, 5 - Thy	cilids Chrysidid Chrysid Chrysidid Chrysidid Chrysidid Chrysidid Chrysidid Chrysidid C	s_ leveral spherid - f - Sisyra s and colon	Borlix melan

Date 9/02/	00 T	ime 1230	to_1330	Job	8
Biologists 0	brian Ona	nU			
Comments: Doorsto	DI.O	2	NG 2.174.0	20-6	
Biological ele Rhapi	ements:		times		
Other	Chrysidids	Apioce	Bombyliids S erids S _ Mutilids _ Other insects	phecids Scoliids	
Plants:	Camissoni	i thurberi a	aph weed other Eriogon Eriastrum	um Oen	othera
Vertebr	rates host	Uha	spirm. bush.		
	Ute	5676	Calsole		
	hof:	modo			

Surveyor Rick	Pome	all Time	11	- 1/	Δ.	Jobs 50 (site 9 only)	
surveyor Arge	cogers	Survey Partne	er(s) ///	ex Va	nDam,	(site 9 only)	
Overall Mileage	195						
Weather:	N C		121 110 He 120				
Time (24 hr) Start 0 : 00	% Cloud		Sky		ACTION SHOWS IN	Winds (mph)	Temp (I
Start 10.00	5	clear (patchy	overcast		shower	Caley	99
		clear patchy	overcast	drizzle	shower		
C4		clear patchy	overcast	drizzle	shower		
Stop 2:00	5	clear patchy	overcast	drizzle	shower	calm	107
Site #	Time						
9): 00 to	17.5			Mileage on	
10 W			2=0		_	14718	
TO N	1	to	d- 10	0	_	147184	+
	1	to			_		
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		to					
iological elemen	1	to_					
		to to to					
		to_	ime	sex_		mbers	
		to to to	ime	sex_		mbers	
iological elemen		to to to	ime	sex_	nui	mbers	
Rhaphiom	idas termin	totototot				mbers	
Rhaphiom	general)	to to to to	/ A	silids	nui	mbers	
ther arthropods (Mydids Pompillids	general)	to t	A Sphe	asilids _	Chrycidid		
ther arthropods (Mydids Pompillids	general)	to t	A Sphe	asilids _	Chrycidid		show whom
ther arthropods (Mydids Pompillids	general) Apioc	Bombyliids perids Scoliids Cercuis bice	ASphe	asilids(Chrysidid	s_vubrum/Aumor	h,74 abert
ther arthropods (Mydids Pompillids Other insec	general) Apioc	to t	ASphe	asilids(Chrysidid	s_vubrum/Aumor	hill about
ther arthropods (Mydids Pompillids Other insec	general) Apioc	Bombyliids perids Scoliids Cercuis bice	ASphe	asilids(Chrysidid	s_vubrum/Aumor	hill abort
ther arthropods (Mydids Pompillids Other insect Agenis	general) Apioc	Bombyliids beerids Scoliids	/_ A Sphe	asilids _ ecids \(\sum_{\text{Cences}} \)	Chrysidid	s_vobran/Ammop	hill abort
ther arthropods (Mydids Pompillids Other insect Agenis	general) Apioc	Bombyliids berids Scoliids Cercen's bica	A Sphe	asilids	Chrysidid	s_vobron/Ammop	hill abort
ther arthropods (Mydids Pompillids Other insect Agenis	general) Apioo	Bombyliids beerids Scoliids Cercen's biccontractions	Sphe	Asilids	Chrysidid	s_vobron/Ammop	hill about
ther arthropods (Mydids Pompillids Other insect Agenis (lants: Croton Eriogonum Camissonia	general) Apioc	Bombyliids berids Scoliids Cercen's bica	Spheriogonum	Asilids	Chrysidid Ts fem en Ts fem en	s	hill abort

	er-loving fly - General Form
Date 9-03 - 0	06 Overall Time 10,00-2:00 Jobs SCE
Surveyor AV	D Survey Partner(s) RR on 9 only and 10e
Overall Mileage _	D Survey Partner(s) RR on 9 only and 10e 225670.2 - 225689.5
Weather:	
Time (24 hr)	% Cloud Sky Winds (mph) Temp (F)
Start 10:00	Clear patchy overcast drizzle shower (alm 99
	clear patchy overcast drizzle shower
	clear patchy overcast drizzle shower
Stop 2 . 00	O (clear patchy overcast drizzle shower (alls) (N)
iological elemen	10:50 to 10:46
ther arthropods (g Mydids Pompillids Other insect Apioc Juliants lants: Croton Eriogonum	general) Bombyliids Asilids Apiocerids Sphecids
rtebrates:	

		Survey Partner(s)			_
Overall Mileage	14/32	28			
Weather:					
Time (24 hr)	% Cloud	Sky		Winds (mph)	Temp (F)
Start /12 00	0	Clear patchy overcast	drizzle shower	calin	
		clear patchy overcast	drizzle shower	RUCE	900
		clear patchy overcast	drizzle shower		
Stop /: 00	5	clear patchy overcast	drizzle shower	1 1 1 2 4 .	1000
ite#	TWO .		A CONTRACTOR OF THE PARTY OF TH	Imph.	1000
	Time			Mileage on	site
IOE	_//=			14732	4
100		25 to 11:55	5	147321	5
(2)	12:	00 to 12=4		14735	
TA	12	\$5.50 to 1:00		14730	8
		to		7777	
	_	to			
		to			
		toto			
iological alam					
		to			
		to	sexnun	nbers .	
			sex nun	nbers	
		to	sex nun	nbers	
Rhaphion	nidas termin	tototime		nbers	
Rhaphion	(general)	tototimeBombyliids // As	tilide A	nbers	
ther arthropods Mydids	(general)	Bombyliids As	silids		
ther arthropods Mydids Pompillids	(general)	Bombyliids Aserids Spher	silids V	- /	
her arthropods Mydids Pompillids Other inse	(general) Apioos	Bombyliids Aserids Spheo	cids Chrysidids	V	
ther arthropods Mydids Pompillids Other inse	(general) Apioos	Bombyliids Aserids Spheo	cids Chrysidids	V	Ema acri
ther arthropods Mydids Pompillids Other inse	(general) Apioos	Bombyliids Aserids Spher	cids Chrysidids	V	Parnojes e
ther arthropods Mydids Pompillids Other inse	(general) Apioos	Bombyliids Aserids Spheo	cids Chrysidids	V	Parnojes e
ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note	Bombyliids Aserids Spheous Scoliids Epeolus so Stevens bico	cids Chrysidids Chrysidids pogoru brev	iscules/ Egist	eme acri
ther arthropods Mydids Pompillids Other inse Schiston	(general) Apioos cts of note	Bombyliids Aserids Sphere Scoliids Epeolus so Stements Cercevis bico	cids Chrysidids Chrysidids	isculus/ Egist phila mbari	Pannoges e
ther arthropods Mydids Pompillids Other inse	(general) Apioc cts of note CONOL PIT	Bombyliids As erids Spheo Scoliids Scoliids Scoliids Stead erids Stead Stead erids Stead Stead erids Stead Stead erids Stead	cids Chrysidids	isculus/ Egist phila mbari	Pannojes e
ther arthropods Mydids Pompillids Other inse Schisto lants: Croton Eriogonum Camissonia	(general) Apioos cts of note CONOL PITE	Bombyliids Aserids Spheous Scoliids Epeolus so Stevens bico	cids Chrysidids Chrysidids pogen frev criogonum fascicu Oenoth	isculus/ Egist phila mbari	Parnojes e

ourreyor /1V	D *	Survey Partne	er(s)	33			
Overall Mileage	2	25715	-0-	- 2	257	18.9	
Weather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (
Start 10:06	0	cfear patchy	overcast	drizzle	shower	Calm	96
	4	clear patchy	overcast	drizzle	shower	Saltari.	10
Star 12/1/2		clear patchy	overcast	drizzle	shower		
Stop 12:45	0	clear patchy	overcast	drizzle	shower		10%
Site # ,	Time					3.50	/ /
1		0100 to	11:00			Mileage on	site
3		11:08 to	11:1-	3	_	2257	15.00
4	1	1118 to	11:3	8	_	220	16.3
5	1	1143 to	120	17	_	225	17.2
65	i	12:25 to	12:	45		220	1100
	-	to_					1180)
	3.	to_					
	-	to_					
	+	to_			_		
	+	to_			_		
	+	to_			_		
iological elemen	ts:						
	idas termin	atus? ti	me	COV	*****	-h	
Rhaphiom	1			scx _	nun	nbers	
Rhaphiom							
Rhaphiom							
Rhaphiom							
Rhaphiom.	general)	Bombyliids	As	silids			
ther arthropods (s	Apioc	erids	As	silids cids			
ther arthropods (s Mydids Pompillids	Apioc	Scoliids	Sphe	cids	hrysidids	-	
ther arthropods (s	Apioc	Scoliids	Sphe	cids	hrysidids		ndita
ther arthropods (s Mydids Pompillids	Apioc ts of note	Scolijds_ Scolijds I = Tyrom blue	Spherical Spheri	cidsC	hrysidids	op, Willar	
ther arthropods (some pompillids other insections)	Apioc s of note	Scoliids_ I - Pyrony White S	Spherical Spheri	cidsC	hrysidids	op, Willar	
ther arthropods (some pompillids other insections)	Apioc s of note	Scolijds_ Scolijds I = Tyrom blue	Spherical Spheri	cidsC	hrysidids Lyria foxi	spy Villar	
ther arthropods (some pompillids other insections of the control o	Aprocess of note	Scolijds_ I - Tyrom blue 5 water 5	Sphere	cidsC XI; c Many Noph	hrysidids Lyria fra mpla ila op	Peromy Cy	
ther arthropods (some state of the state of	Apioc s of note	Scolijds Scolijds Jeffren Like Lata Scompton Taph weed	Spher	cidsC	hrysidids Lyria Josepha ila op	Reground Py	
ther arthropods (some pompillids of the control of	Apioc s of note gray Les ipl Teleg	Scolijds_ I - Tyrom blue 5 water 5	Sphere Sphere	cids	hrysidids Lyria Josepha ila op	Reground Py	

Delhi sands flow	er-loving fly - Gene	ral Form			
Date 9-05-	Overall Time	10:00-1	00	Jobs_SC	E
	D Survey Pa				
Overall Mileage _	225738	7-22	5740	0.7	
Weather:	1				
Time (24 hr)	% Coud	Sky		Winds (mph)	Temp (F)
Start 10:00	O (ear) pat	chy overcast drizz	le shower	calm-1	102
		chy overcast drizz	le shower	55577	100
St	clear pat	chy overcast drizz	le shower		
Stop +30/2	1450 Cléar pat	chy overcast drizz	le shower	a calm	103
Site # 10 P. 10 W	Time 0:00	to 11:00 to 11:00 /)	<u>',4</u> 5	Mileage on s	38.7
	1	to			
	+	to			
	1	to	_		
****	Ý .	to			
	1	to			
	7	to			
		to			
Biological element Rhaphiomia	s: las terminatus ?	time sex	x nu	mbers	
Other arthropods (go	eneral) Bombyliid	s Asilids	1_	m	
Mydids Pompillids	Apiocerids Scoliids of note 100 - 2	Sphecids Sphecids St. Euoblonery	Chamilia	mghila abert	i.
10W-	illa molison	Parmappe It	der, o	sachinidap,)
Plants: Croton	Telegraph weed	Erioge	onum fascio	culatum	
Eriogonum ii	nurberi other Eriastri	Eriogonum	Oenot	hera	
	1				1 4
ertehrates:					10.10

Date 9/05/06 Miles	Time 10.	30_to_	1130	Jo	b_8
Biologists Brigo	Drand	æ			
Weather: Temp 5	3.4 Wind	1_ calm VC 0.5/	Cloud co	over 20%	Rain 🕖
Comments: bright and will					
Suliphon Chi	MILTERNO	n			
Surcephasidad					
formicidal					
Surcophasidad					
olenati					
0007470	-				
	ods (general)				
Mydid	IS Apr	ocerids	Sr	hecide	
Chrysi	dids	Mutilio	is	Scoliids	
Myme	rleontids	0	ther insects	of note	
-					
Camis	num thurberi sonia_	oth Eriasi	er Eriogonu trum		fasciculatum Oenothera
Vertebrates					
rode		hosp	hofi	hoh	
uta		calgetu	Cha	200.1	
Spirm	r. burn.		molo		

Date Sept 6, 2000	6 Overa	all Time Zhrs.	Jobs SC	E
Surveyor Rick R	2845	Survey Partner(s) Alex Van Dan (540-1)	
Overall Mileage	0	(2110 7 8 MG)	_
Weather:		De la Company		
Time (24 hr) %	Cloud	Sky	Winds (mph)	Transmitted.
Start /0=30	5	clear patchy overcast drizzle shower	Calus	Temp (
		clear patchy overcast drizzle shower	cary	100
		clear patchy overcast drizzle shower		
Stop 12=30	5	clear patch overcast drizzle shower	1+2	108
Site #	Time			
9)=30m to 12=30pm.	Mileage on	site
		to		
		to		
		to	***************************************	
		to		
	-	to		
		to		
Distant				
Biological elements:				
Knapniomiaa	s termin	atus?time sexnur	nbers	
Other arthropods (gen	eral)	Bombyliids Asilids		
Mydids	Apioc	erids Sphecids 1		
Pompillids		Scoliids Chrysidids Cumenas bolli / Campsonevis to Cerceris bicomuta/ Cercaris		
Other insects of	f note	Eumenes bolli / amosomeris to	1to-1-11	1.0/
A menople la	aberto	/ cercevis bicomutal revenis	fem = malcio	19/
			- Constant	
	-			
Plants: Croton	Teleg	raph weed Eriogonum fascic		
Eriogonum thu	rberi	other Eriogonum Oenoth	ulatum	
Camissonia		Callet Eriogonum Oenoth	nera	
Others:		_ Di Masii um		

Date 9-06-C						Jobs_S	CE
Surveyor A	VD	Survey Partne	er(s)_K	R		•1	
Overall Mileage	2:	25779	2.0	MI			
Weather:							
Time (24 hr)	% Cloud		Sky		Name of the last o	Winds (mph)	Temp (F)
Start 10113	0	Gear patchy	overcast	drizzle	shower		94
		clear patchy	overcast	drizzle	shower	1	
		clear patchy	overcast	drizzle	shower		
Stop 12:15	0	clear patchy	overcast	drizzle	shower	1-2	100
ite # 9	Time		12:7.	5		Mileage on	site 577800
		to_			_		
		to_				4 14	
		to_			_		
	_	to			-		
		to			_		
		to					
		to_			_		
		to_			_		
		to_		-	_		
ther arthropods (Mydids Pompillids Other insec	general)Apioc	cerids Scoliids	A	silids	Chrysidids		enala
Camissonia	thurberi ı	graph weed other Er Eriastrum	riogonum		Oenoth	ulatum hera	

		all Time Survey Partne				Jobs Sea	
verall Mileage				,			
Veather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Tem
Start 1067	а	clear patchy	overcast	drizzle	shower	e e	X CIII
		clear patchy	overcast	drizzle	shower		
		clear patchy	overcast	drizzle	shower		
Stop 1220		clear patchy	overcast	drizzle	shower		
ite#	Time					3.60	
501619	10.	77 to	1/33			Mileage on s	
CE GN	113	5 to	122	0	_	1925	
		to				193520	
		to_					
		to_					
		to_			_		
	-	to_			_		
		toto_		-	_		
		to			_		
		to			_		
					-	_	
	nidas termin	natus ?ti				nbers	
LAP OPPHAGOAA	(general)	Bombyliids _	A	silids _			
Mudida	Apioc	Seniii d	Sphe	cids			
Mydids)	Scomas		(Chrysidids		
Pompillids	cts of note						
Pompillids	cts of note _						
Pompillids Other inse	Teles	graph weed other Er		Friogon	um fanaia	ulatum	

clear patchy overcast drizzle shower Calm 74			Survey Partner	,		<u>-</u>		
Time (24 hr) % Cloud	verall Mileage		7 7	5 8C	10	8-		
Time (24 hr) % Cloud	Veather:							
Start O'.OO O O O O O O O O O		% Cloud	ELEMENT DE MA	Sky		10 000	Winds (mnh)	Town (P)
clear patchy overcast drizzle shower Calm File Clear patchy overcast drizzle shower Calm File Clear patchy overcast drizzle shower Calm File Fi	Start 10:00	0	gear patchy		drizzle	shower	- 1	
Clear patchy overcast drizzle shower Calma 96 Calma 96 Clear patchy overcast drizzle shower Calma 96 Mileage on site Calma 96 Clear patchy overcast drizzle shower Calma 96 Calma 96 Clear patchy overcast drizzle shower Calma 96 Calma 96 Clear patchy overcast drizzle shower Calma 96 Calma 96 Clear patchy overcast drizzle shower Calma 96 Calma 96 Clear patchy overcast drizzle shower Calma 96 Calma 96 Clear patchy overcast drizzle shower Calma 96 Clear patch						-	caessa	17
Stop 750 O Clear patchy overcast drizzle shower Calm 96 ite # Time						_		
Time O O to 12 O to O t	Stop 7500	0	_				(alm	91
Time O O O O O O O	9/2	:00					cuon c	16
to t	ite#	Time					Mileage on	site
to				12'-	00		2258	07.8-99
to t	2010		2:10 to	2:00	~_			6:
to t			to_			-		- per
to to do		-	to_			_		90
to to to						_		lu
to t		-				_		
to t		-				-		09
to to to fiological elements: Rhaphiomidas terminatus? time sex numbers ther arthropods (general) Bombyliids \ Asilids \ Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids \ Other insects of note file on litor, from y parker, sachinatha a Miclourithus multicales Mashida about sq., \ Lants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum						_		allen
to						-		- sho
ther arthropods (general) Bombyliids Sphecids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note Villa malital physical about a property of the second point of the second point of the second physical about a property of the second physical about a proper						-		
ther arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Chrysidids Other insects of note Villa molital, Prophys parker, Laschinalla and Mydids Cosiniahuria Asilids Scoliids Chrysidids Chry						-		
ther arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note Villa malitol , Brongy parkeri , Saschinatta a Philomethys multicolar , Imaghida alerts pp. , Do semiila Cosiniahurla Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum								no
ther arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note Villa malitor, by oney parker: Sachinatta a finilanthus multicals imagnita laberts of production of the cosiniahuria ants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	iological elemen	its:		200	Sev	nur	nbers	
Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Other insects of note Villa			natus? ti	me				
Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Chrysidids Other insects of note Villa malital, Property parker: Saskinatha & Postmitila Cosiniahurta Aberlo application of the friogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Eriastrum			natus ?ti	me	50% _			
Mydids Apiocerids Sphecids Pompillids Scoliids Chrysidids Chrysidids Other insects of note Villa malital, Pronyr parkeri Saskinatha & Posimitalia Cosimiahurta Aberlo ap, ants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum			natus ?ti	me	50% _			
Pompillids Scoliids Chrysidids Other insects of note Villa molital, Propry parker, Seschinetta de Philomethus multicolor amophila laberto pp. Posimitila losiniahurta Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Rhaphion	idas termii						
Other insects of note	Rhaphion	general)	Bombyliids	V A	silids_	V		
Philorethus multicols Amsphila laborts of sp. 3 Do semutile Cosiniahurta Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	Rhaphion	general)	Bombyliids	V A	silids _	V		
lants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	ther arthropods (Mydids Pompillids	general) Apioc	Bombyliids cerids Scoliids	A Sphe	silids _	V	-	
lants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	ther arthropods (Mydids Pompillids Other inseg	general) Apioc	Bombyliids cerids Scoliids	A Sphe	silids _	Chrysidids	-	eschinotta a
Camissonia Eriastrum	ther arthropods (Mydids Pompillids Other insec	general) Apioc	Bombyliids	A Sphe	silids _	Chrysidids	-	eschinath a
Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	ther arthropods (Mydids Pompillids Other insec	general) Apioc	Bombyliids	A Sphe	silids _	Chrysidids	-	eschinath a
Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum	ther arthropods (Mydids Pompillids Other insec	general) Apioc	Bombyliids	A Sphe	silids _	Chrysidids	-	eschinath a
Camissonia Eriastrum	ther arthropods (Mydids Pompillids Other insec	general) Apioo	Bombyliids	A Sphe	silids _ ecids _ (2, Ry	Chrysidids	parkeri, S.	eschinath a
Others:	ther arthropods (Mydids Pompillids Other insec	general) Apioo	Bombyliids	A Sphe	silids	Chrysidids	parkeri , L eborlo sp.	eschinetta a
	ther arthropods (Mydids Pompillids Other insection Alants: Croton Eriogonum	general) Apioo ts of note ilouthur Teleg thurberi	Bombyliids cerids Scoliids Sco	A Sphe	silids	Chrysidids	parkeri , L eborlo sp.	eschinath a

urveyor K	Over.	all Time _	artner(s)	N	portion	Surve,	Jobs Sci	
verall Mileage								
Veather:								
Time (24 hr)	% Cloud			Sky			Winds (mph)	Temp (F)
Start ///6	ď	clear p	atchy ove	ercast	drizzle	shower	19-5	82
		clear pa	atchy ove	ercast	drizzle	shower		0 =
		clear pa	atchy ove	ercast	drizzle	shower		
top //36		clear pa	atchy ove	ercast	drizzle	shower		
te#	Time			-Line-ie-			See 2 AMERICA	
-18 6N por	4 //	16	to	117	_		Mileage on	
pay		0	to	1/3	6	_	19256	2 Eauto
			to			_		
			_to			_		
			_to					
			_to			_		
			_to			_		
			_to	_		-		
			to			_		
			to			_		
ological eleme	nts: nidas termin	natus ?	time		sex	nun	here	
						nun		
	(general)	Bombylii	ds	Δ	silide			
her arthropods		7		- 11				
iviyulus	Apioc	erius		Sphe	cids			
Pompillid	Apioc	Scolii	de	Sphe	cids	hrysidids	-	
Pompillid	Apioc	Scolii	ds	Sphe	C	hrysidids		
Pompillid	Apioc	Scolii	ds	Sphe	C	hrysidids	3	
Pompillid	Apioc	Scolii	ds	Sphe	C	hrysidids	3"	
Pompillide Other inse	cts of note	Scoling Scoling	ds	A. C	Loye	Chrysidids	3	
Pompillide Other inse	cts of note _	Scoling Scolin	ds	A. C	Tringar	Chrysidids	3	
Pompillide Other inse	cts of note Telegore thurberi	Scoling Scolin	dsddder Eriogo	A. Conum	Eriogoni	Chrysidids La can um fascicu Oenoth	3	

clear patchy clear patchy clear patchy clear patchy ime 10.00 to	Sky y overcast y overcast y overcast y overcast	drizzle	shower shower shower	Winds (mph) Winds (mph) Winds (mph) Winds (mph) Winds (mph)	Temp (F) 93 94 site 8588
clear patchy clear patchy clear patchy clear patchy clear patchy ime to to to to to to to	y overcast y overcast y overcast y overcast	drizzle drizzle drizzle	shower shower shower	Mileage on	93 94
clear patchy clear patchy clear patchy clear patchy clear patchy ime to to to to to to to	y overcast y overcast y overcast y overcast	drizzle drizzle drizzle	shower shower shower	Mileage on	93 94
clear patchy clear patchy clear patchy ime to to to to to to to to to	y overcast y overcast y overcast	drizzle drizzle drizzle	shower shower shower	Mileage on	93 94
clear patchy clear patchy ime to to to to to to to	y overcast y overcast	drizzle drizzle	shower	Mileage on	94 site
clear patchy ime to to to to to to to to to t	y overcast	drizzle	shower	Mileage on	site
to to to to to				Mileage on	site
10.00 to		4,0	0	Mileage on	
to			_		
		sex	nu	ımbers	
Scoliids ote Stenon Pyronyx Celegraph weed	Spholaring Spholaring	ecids	Chrysidic Vella Interpreta	invitor filaspi innutsa	Idera
A Tie	Apiocerids Scoliids Note Simon Telegraph weed Eriastrum	Apiocerids Sphare Scoliids Note Simonogon Sim	Apiocerids Sphecids Scoliids Note Stenopogowap Wonys Baker Telegraph weed Eriogonum Eriastrum	Apiocerids Sphecids Chrysidic Scoliids Chrysidic Chrysidic Sphecids Chrysidic Sphecids Chrysidic Sphecids Chrysidic Sphecids Sphecids Sphecids Chrysidic Sphecids	Apiocerids Sphecids Chrysidids Scoliids Chrysidids Chrysidids Other Stenonogous pour Chrysidids Annophila ap Eriogonum fasciculatum other Eriogonum Oenothera

		all Time				Jobs seg	
Surveyor	610	Survey Partne	er(s)	1			
Overall Mileage							
Weather:							
Time (24 hr)	% Cloud		Sky	4		Winds (mph)	Temp (F)
Start 1029	0	lear patchy	overcast	drizzle	shower	calus	802
1330	0	Gear patchy	overcast	drizzle	shower	B	85
		clear patchy	overcast	drizzle	shower	-	01
Stop Z		clear patchy	overcast	drizzle	shower	0-5	
Site #	Time						
5061,19	Children Co.	27 to	12	7		Mileage on	
SCB8	1:0			v	_	19259	3 (franchin
		to			_	19260	3 (transfir
		to			_		
		to					
		to_					
	_	to_			_		
	-	to_			_		
		to_		-	_		
		to_ to			_		
					_		
iological -1							
		tatus ?t	ime	sex _	nur	nbers	
ther arthropode (nidas termin	Danik III I					
Rhaphion	nidas termin	Danik III I					
ther arthropods (Mydids Pompillids	(general)	Bombyliids erids Scoliids	A Sphe	silids _	Phrysidide	411 avec /	
ther arthropods (Mydids Pompillids	(general)	Bombyliids erids Scoliids	A Sphe	silids _	Phrysidide	411 avec /	
ther arthropods (Mydids Pompillids	(general)	BombyliidsseridsScoliids	A Sphe	silids	Chrysidids	all are /	
ther arthropods (Mydids Pompillids	(general) Apioo	Bombyliids	A Sphe	silids	Chrysidids	411 avec /	,
ther arthropods (Mydids Pompillids	(general) Apioo	BombyliidsseridsScoliids	A Sphe	silids	Chrysidids	all are /	,
ther arthropods (Mydids Pompillids Other insec	(general) Apioo	Bombyliids	A Sphe	silids	Chrysidids	all area /	,
ther arthropods ((general) Apioo	Bombyliids	A Sphe	silids	Chrysidids	all area /	
ther arthropods ((general) Apioo cts of note Teleg	Bombyliids	Sphe Sphe	silids	Chrysidids	all area /	,
ther arthropods (Mydids Pompillids Other insection lants: Croton Eriogonum Camissonia	(general) Apioos cts of note Teleg	Bombyliids	Sphe	silidsccids(Chrysidids um fascic Oenoti	all area /	

		Survey Part	(-)				_
verall Mileage	14859	15					
eather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (F)
tart /0:00	0	clear patch	y overcast	drizzle	shower	2 mph	84°
		clear patch	y overcast	drizzle	shower	Zinph	07
		clear patch	y overcast	drizzle	shower		
top 2200	0	clear patch	y overcast	drizzle	shower	1 mph	92°
te#	T!						10
9	Time	-00 to	0 2=0	_		Mileage on	
-		to		0		1485	45
		te			_		
		te					-
		t)				
		to)				
		t			_		
		to			_		
		to			-		
		to			_		
Rhanking	nidas termii	natus ?			nui	mbers	
ner arthropods Mydids	Apioc	cerids	Spho	ecids /	Chrysidids	a getmon! /C. aberti/ Chloria s./Paragus ti	

	0,01	all Time				Jobs Sty	8
Surveyor	KHO	Survey Partne	er(s)				
Overall Mileage	walk	for off.	-				
Weather:							
Time (24 hr)	% Cloud		Sky		第5、位有	Winds (mph)	Temp (
Start /24	ا	clear patchy	overcast	drizzle	shower	0-2	
		clear patchy	overcast	drizzle	shower		
		clear patchy	overcast	drizzle	shower		
Stop 104	0	dear patchy	overcast	drizzle	shower	0 -2	25
ite#	Time					3421	
CE 8	12		104			Mileage on s	
			7			1	
		to			_		
		to			_		
		to_					
	-	to_					
		to_			_		
		to_			_		-
	V-	to_			_		
	-	to			_		
iological alama					_		
Rhaphion	nidas termi	tototo				mbers	
Rhaphion ther arthropods	nidas termin	to to to	A	silids		mbers	
ther arthropods Mydids Pompillid	(general)	matus?to Bombyliids _ceridsScoliids	Sphe	silids _	Chrysidid		
ther arthropods Mydids Pompillids	(general)	matus?to Bombyliids _ceridsScoliids	Sphe	silids _	Chrysidid		
ther arthropods Mydids Pompillids	(general)	natus?to Bombyliids_cerids	Sphe	silids _	Chrysidid		
ther arthropods Mydids Pompillide Other inse	(general) Apioos cts of note	BombyliidsceridsScoliids	Sphe	silids(Chrysidid:	s	
ther arthropods Mydids _ Pompillide Other inse	(general) Apioos cts of note Teles	Bombyliids cerids Scoliids	Sphe	silids _ cids(Chrysidid:	s	

Delhi	sands	flower-loving	fly .	- General	Form
	O SO RE CELO	TION CI -IOAITIE	Hy .	- General	rori

craii Mileage	14872	25					
eather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (F)
tart //: 15	0	clear patch	ny overcast	drizzle	shower	2-3	90°
		clear patcl	ny overcast	drizzle	shower		70
		clear patch	ny overcast	drizzle	shower		
op /2735	0	clear patch	y overcast	drizzle	shower	2-3	92.
e #	Time						
10 and 10		215 am. 1	0 11:22	= .		Mileage on	
11/2	1/:	40 am t	0 10 -0	E	_	14872	
2A			0 12:3		_	14872	
			0 /2-5	2		14872	5
			0		-		
			0		_		
			0		-		
	-	t			_	-	
	-		<u> </u>				
		t	0				
		t		-			
	-	t	0		_		
		t	0				
logical eleme	nts:	to)		_		
logical eleme	nts: nidas termin	to)	sex		nbers .	
logical eleme Rhaphion	nts: nidas termin	t)	sex_	nun	nbers	
logical eleme Rhaphion	nts: nidas termin	to)	sex_	nun	nbers	
Rhaphion	nidas termin	to to	time			nbers	
Rhaphion er arthropods	(general)	natus ?	time	silids I		nbers	
er arthropods Mydids	(general)	Bombyliids	A	silids ½			
er arthropods Mydids	(general)	Bombyliids	A	silids ½			
er arthropods Mydids Pompillids Other inse	(general) Apioc cts of note	Bombyliids erids Scoliids	A	asilids Lecids	Chrysidids		son braise
er arthropods Mydids Pompillids Other inse	(general) Apioos cts of note	Bombyliids cerids Scoliids	Sphe Aberti	asilids Lecids L	Chrysidids	ken /stenopo	
er arthropods Mydids Pompillids Other inse	(general) Apioos cts of note	Bombyliids cerids Scoliids	Sphe Aberti	asilids Lecids L	Chrysidids		
er arthropods Mydids Pompillids Other inse	(general) Apioos cts of note	Bombyliids cerids Scoliids	Sphe Aberti	asilids Lecids L	Chrysidids	ken /stenopo	
er arthropods Mydids Pompillids Other inse	(general) Apioos cts of note	Bombyliids erids Scoliids Armonish Dolistes	Spholand A	silids pecids pecids poly	Chrysidids MYX passi Totas a dwasp/	kein / stenope xclamans/E Megachile sp. (
er arthropods Mydids Pompillids Other inse	(general) Apioo cts of note albibarb	Bombyliids cerids Scoliids	Sphere Sphere a packy	silids Lecids Verior	Chrysidids MYX pari istes e duasf	Levi /stenopo xclamans/E Megachile sp. (
er arthropods Mydids Pompillids Other inse	(general) Apioc cts of note alb i barb Teleg	Bombyliids erids Scoliids Armonish Dolistes	Sphering a pachy	Asilids Decids Decids Decids Decids Decids Decids Decids Decided Decid	Chrysidids MYX pari istes e duasf	Levi /stenopo xclamans/E Megachile sp. (

Surveyor A	10	Survey Partner(s)		
Overall Mileage	226	235.7- 22623	9.5	
Weather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start 10:15	0	clear patchy overcast drizzle shower		87
		clear patchy overcast drizzle shower		6 /
		clear patchy overcast drizzle shower		
Stop 12:33	0	clear patchy overcast drizzle shower	Calm	87 95
iological elemen	nts:	to	2262	238.0 238.7 39.5
Mydids Pompillids Other insec	Apio	esp. 5- Wilauthur V	ids x Aa	steri Pagonomy M

Date Sept 12, 200	Over	all Time 4 h	ns.		Jobs SC	E
Surveyor Rick	Kogur S	Survey Partne	r(s)			
Overall Mileage	14886	8	1			_
Weather:						
Time (24 hr)	% Cloud		Sky		Winds (mph)	Temp (F)
Start 10:00 aun	0	clear patchy	overcast drizz	le shower	Calm-Imph	92°
		clear patchy	overcast drizz	e shower	E active (my n	7.2
		clear patchy	overcast drizz	e shower		
Stop 2 = 00 pm.	0	clear patchy	overcast drizzl	e shower	1 mph.	101°
ite#	Time				Mileage	**
9	_10	200 dun to	2:00 pm.		Mileage on s	R
		to_			77000	
		to_				
		to_				
		to_				
		to				
		to				
		to				
		to_				
		to_				
Rhaphiom ther arthropods (idas termir	Bombyliids V			mbers	
Mydids	Apioc	cerids	Sphecids 1	/		
Pompillids	V	Scoliids		Chrysidid	9	
Other insec	ts of note a	6 11/ 10	1-1	/	1-	canante
Cachytes	distinct	/ Campson	wis tolteca/	Techyom	pilis unicolar stu	mama 1)
Ageniella	sp./Cerc	eris picorno	ta Thyrian	withrax of	Mornicum/Livi	a aberte
Tiphical		m/Bacca cl	avata mime	sia spo	Philan thus vent	Habris/
ants: Croton_						
	thurberi	other Fu	Eriogo	num fascio	culatum	
Eriogonum		outer Ert	ogonum	Oenot	hera	
Litogonum		Ericistrum				
Camissonia		Eriasirum _				

		Survey Farme	r(s)—		n/6	Jobs Scorly	_
Overall Mileage	22	6260	2.8				
Veather:							×
Time (24 hr)	% Cloud	Barrier Laborate	Sky			Winds (mph)	Temp (I
Start 10:10	0	clear patchy	overcast	drizzle	shower	/	87
		clear patchy	overcast	drizzle	shower		
		clear patchy	overcast	drizzle	shower		
Stop 2:00	0	clear patchy	overcast	drizzle	shower	2	93
							12
ite#	Time					Mileage on	site
65	10.	10 to	10:30	_			
GN			1000 I		_		260.8
11	-	the state of the s			_		261,6
7		17 to_	11:3		_	2260	-62.2
10W	12	:10 to	2:0	8	_	2262	
		to				000	1100
		to			_		
		to			-		
		to			_		
	-				_		
	-	to_			_		
		to_			_		
					_		
	_	to_			_		
ological eleme	nts:	to_			_		
		toto_	ime	Sea		nhere	
		to_	ime	sex		mbers	
		toto_	ime	sex_	nur	mbers	
		toto_	ime	sex	nur	mbers	
Rhaphion	nidas termi	to to to			nur	nbers	
Rhaphion her arthropods	(general)	to to to to		sex	nur	mbers	
Rhaphion ther arthropods	(general)	to to to to	/ A	Asilids _	nur	mbers	
Rhaphion ther arthropods Mydids	(general)	to t	/ A	asilids _	1	\ \	
her arthropods Mydids Pompillids	(general)	to to to to	/ A	Asilids _	Chrysidids	3	
ther arthropods Mydids Pompillide Other inse	(general) Apioos cts of note	Bombyliids cerids Scoliids	/ A	Asilids _ ecids	Chrysidids	10 W	
ther arthropods Mydids Pompillids Other inse	(general) Apioo	Bombyliids cerids Scoliids	Spho	Asilids _ ecids	Chrysidids	10 W	
ther arthropods Mydids Pompillids Other inse	(general) Apioo	Bombyliids cerids Scoliids	Spho	Asilids _ ecids	Chrysidids e en	10 W	
ther arthropods Mydids Pompillide Other inse	(general) Apioo	Bombyliids cerids Scoliids	Spho	Asilids _ ecids	Chrysidids e en	10 W	
Rhaphion ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note cullar meship	Bombyliids cerids Scoliids	Spho Spho 6 W	Asilids _ecids _	Chrysidide e on odoner	10 W	lar
Rhaphion ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note cullar meship	Bombyliids cerids Scoliids	Spho Spho 6 W	Asilids _ecids _	Chrysidide e on odoner	10 W	lar
ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note Collai m	Bombyliids cerids Scoliids Canyola graph weed	Sphone Sphone Color	Asilidsecids	Chrysidids chrysidids chrysidids chrysidids	IOW wh alexpille	Var.
Rhaphion ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note Messy (OW Tele	Bombyliids cerids Scoliids Scoliids Scoliids Scoliids Scolies	Spho Spho Spho Spho Spho Spho Spho Spho	Asilids	Chrysidids chrysidids chrysidids chrysidids	IOW wh alexpille	lar
ther arthropods Mydids Pompillids Other inse	(general) Apioos cts of note Mesky (GW — Teles	Bombyliids cerids Scoliids Canyola graph weed	Spholing Sph	Asilids	Chrysidids chrysidids chrysidids chrysidids	IOW wh alexpille	lar_

Surveyor Rick	Rogers	Il Time Survey Partner(s)	Jobs <u>So</u>	E
Overall Mileage				
Weather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Town (FD
Start // = 00	overlast	clear patchy overcast drizzle shower		Temp (F)
		clear patchy overcast drizzle shower	J J MIM	80°
		clear patchy overcast drizzle shower	er	
Stop /2 = 25	100	clear patchy overcast drizzle showe		81°
iological eleme	1/3			
Other inse	Apiocas cts of note // Fraction Telegrathurberi	erids Sphecids 1/	ciculatum	s splolich.

	VD	Survey Partner(s)		
, ,		6301.3		_
verall Mileage _	0-1	6501.5		
eather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
tart 10,44	100	clear patchy overcast drizzle show		80°F
,		clear patchy overcast drizzle show		
		clear patchy overcast drizzle show	er	
top]:15	795	clear patchy overcast drizzle show	er 1-2, calm	83
ological element		to t		
her arthropods (g Mydids Pompillids_ Other insect	general)Apioo	Bombyliids Asilids erids Sphecids Chrysi	dids_	la spe, Dogg

	Over	all Time					Jobs 50	E
	1-			/	, ,		1	
urveyor K	70	Survey	Partne	r(s)	. Kog	m P	arts)	
verall Mileage								
vorum mineuge								
eather:								
Time (24 hr)	% Cloud	2 / 2 N		Sky	it lets	Telephone I	Winds (mph)	Temp (F)
Start Yolo	0	Clear	patchy	overcast	drizzle	shower	0	
1031	0	1	patchy			shower	0	70
1200	0	Clear	patchy			shower	υ-z	84
Stop		clear	. ,	overcast		shower		84
			paretty	Overeuse	UI IZZIO	SHOWEL		
ite#	Time						Mileage on	site
253	10	10	to	100	•			88 KHO0
CE 5	10		to	1050	s		, 911 G	60 KHO+
CE EN	110	02	to	1136				
" SCEN	113	36	to	1150		_		RR
C665		2	to	1130	9	-	1079	(1 K#0
CE 4	118			1202			1941	C K NO
	110		-to-	1000		_	1929	65 KAO,
	-		to_			_		
			-to-			-		
			to_		_	_		
			to_to			_		
					-	_		
ological eleme	nte.							
ological eleme		andere 9	+	# # # # # # # # # # # # # # # # # # #				
-	nts: <i>nidas termi</i>	natus ?	t	ime	sex	nui	mbers	
-		natus ?	t	ime	sex	nui	moers	
-		inatus ?	t	ime	sex	nui	moers	
Rhaphion	nidas termi						moers	
Rhaphion	nidas termi	Bomby	/liids_		Silids	./	moers	
Rhaphion ther arthropods Mydids	(general)	Bomby	/liids _	Spho	Asilids _	4		
her arthropods Mydids Pompillids	(general) Apio	Bomby cerids _ Sco	/liids _	A	Asilids _	Chrysidid	s	
her arthropods Mydids Pompillids	(general) Apio	Bomby cerids _ Sco	/liids _	A	Asilids _	Chrysidid	s	
her arthropods Mydids Pompillids	(general) Apio	Bomby cerids _ Sco	/liids _	A	Asilids _	Chrysidid		
her arthropods Mydids Pompillids	(general) Apio	Bomby cerids _ Sco	/liids _	A	Asilids _	Chrysidid	s	
her arthropods Mydids Pompillids	(general) Apio	Bomby cerids _ Sco	vliids _	Sph	Asilids _ ecids	Chrysidid	s	
her arthropods Mydids Pompillids Other inse	(general) Apio	Bomby cerids _ Sco	vliids _	Sph	Asilidsecids	Chrysidid	s	
her arthropods Mydids Pompillids Other inse	(general) Apio Scts of note	Bomby cerids _ Sco	vliids	Spho	Asilidsecids	Chrysidid	s	
her arthropods Mydids Pompillids Other inse	(general) Apio S cts of note Tele	Bomby cerids _ Sco	vliids vliids veed other Er	Spho	Asilidsecids	Chrysidid	s	
her arthropods Mydids Pompillids Other inse	(general) Apios cts of note Tele	Bomby ceridsSco	vliids vliids veed other Er astrum	Spho	Asilidsecids	Chrysidid Tum fascie Oenoi	sculatum	
her arthropods Mydids Pompillids Other inse	(general) Apios cts of note Tele	Bomby ceridsSco	vliids vliids veed other Er astrum	Spho	Asilidsecids	Chrysidid Tum fascie Oenoi	s	

		all Time 1 hr. 40 min.		Jobs Sca	
urveyor _ R	Rogers	Survey Partner(s)			
verall Mileage	14939	90			
eather:	T 8/ 69 1				
Time (24 hr)	% Cloud	Sky		Winds (mph)	Temp (F)
1220	0		drizzle shower	1-2	84
		alam it	drizzle shower		
top 2=00	0		drizzle shower		
T- 20	0	clear patchy overcast	drizzle shower	1-2	8
te#	Time			Ma	
(61	122	0 to /20		Mileage on s	
CELA	1:20	to 2 = 00		14939	
		to		11 () /	
		to			
er arthropods (Mydids Pompillids Other insect Aphrobac	general) Apioc ets of note	Bombyliids / Asi erids Spheci Scoliids EUSEGGIA VUDENS (new Small) Rhynch anth Martis) Philarthys ac Nafus/Liris Speci	lids ds Chrysidids whombyfid! wax capred	5	ita mira /
f Mijanthe	Smultia	ac Matus/Livis spo			
nts: Croton	Teleg	raph weed Erother Eriogonum of	jogonum fascic	ulatum	

Date 9/16/26 Time 1230 to 1330 Job 8	
Miles	-
Biologists Brian Dranu	
Weather: Temp 86.8 Wind NC62/11.0Cloud cover O'L Rain O	_
Comments:	
miliopalys	
brighidhm existic	
formicidal	
sarcophaside	
orbrate	
formicidal sgrophasidal orbate papillo rubly	
ating mossilie	
sryllide	
bimbix comator	
sightimes comptain	
Biological elements: Rhaphiomidas terminatus?timesexnumbers	
Other arthropods (general) Bombyliids Asilids Mydids Apiocerids Sphecids	
Mydids Apiocerids Sphecids Chrysidids Mutilids Scoliids	
MymerleontidsOther insects of note	
Plants: Croton Telegraph weed Eriogonum fasciculatum Eriogonum thurberi other Eriogonum Oenothera Camissonia Eriastrum Others:	
Valabata	
Vertebrates	
tow cultate cuto	
half smile s	
- ON STATE ASS	

Date Supt 17,06	Over	all Time 3 1/2 hrs. (+ travel	Jobs_50	E
Surveyor Rica	Rogers	all Time 3 1/2 hrs. (+ +ravel 51/2 hrs.) Survey Partner(s))	
Overall Mileage				- 12
Weather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Tr. (m)
Start 10:00 am	0	clear patchy overcast drizzle shower	8-10	Temp (F)
		clear patchy overcast drizzle shower	0-10	88 *
		clear patchy overcast drizzle shower		
Stop	0	clear patchy overcast drizzle shower	5-7	95°
Site #	TP!			12
i N	Time	00 ru to 10 = 20 am	Mileage on s	site
E12	10-		14953	2
9 A			14953	5
10 W	1/10		14853	5
		30 am to 1 & 30 pm	14104	0
	-	to		
		to	-	
		to		
iological elemen				
Knapniom	idas termii	natus ?timesex nu	mbers	
ther arthropods (reneral)	Rombuliida . / 4 3334		
Mydids 1	Anio			
Pompillids	Apio		- /	
	ts of note	ScoliidsChrysidid	s V	,
Evodones	1 50 F	Polisies calegornicys/Ammophila	aberti/oxybelly	sunighthise
Philantho	amoltin	ristalis obsoleta/Agaposternort	exama/Spaopo	gon praise los
Villa mo	itox/par	nopes Edwards / Ivis oratoria	10 mydas, painthe	rinus large of
Archuta	c 50. 19	rimerotionis californical	(antis)/Myrmele	o spe large +
lants: Croton	Tele	graph weed Eriogonum fascio	nul atum	
		Li logonum jascie	uuuum	
	thurberi	other Eriogonum Ognot	hava	
Eriogonum	thurberi	other EriogonumOenot EriastrumOenot	hera	

Vertebrates:

Overa	ll Mileage	2.	26712.2		
Weat	The state of the s				
-	ne (24 hr)	% Cloud	Sky	Winds (mph)	Temp (F)
Start	10:00	0	clear patchy overcast drizzle shower	2-3mph.	88
			clear patchy overcast drizzle shower		
_			clear patchy overcast drizzle shower		
Stop	2:00	0	Glear patchy overcast drizzle shower	5-10	99
			toto		
			to		
			to	-	
	rthropods (g Mydids Pompillids Other insect	general) Apioc s of note	Bombyliids Asilids erids Sphecids Chrysidid Scoliids Chrysidid Endonorus of Philosoph Consilions mony for while in great near	mentilog	resonto.
		Teleg	raph weed Eriogonum fascio	en laterm	

Overall Mileag Weather:				
Time (24 hr)	% Cloud	Sky	Winds (mph)	Town (F)
Start 10:00	0	clear patchy overcast drizzle shower		Temp (F)
		clear patchy overcast drizzle showe		87°
		clear patchy overcast drizzle showe	r	
Stop 2 00		clear patchy overcast drizzle showe	r 2-3 mph.	
ological elem	ents:	tototototo		
her arthropods Mydids	(general) Apioc	Bombyliids / Asilids / Serids Sphecids / Chrysids Chlorion evereum / Steangage Steanga	ids	molitor
Other inst Ammop				

urveyor A	-		. ,	_		4.4	
verall Mileage	22/-	12003	ースコ	267	35.	4	
	6					/	
eather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (F)
Start 1060	0	clear patchy	overcast	drizzle	shower	calm	85
		clear patchy	overcast	drizzle	shower		00
		clear patchy	overcast	drizzle	shower		
Stop 2,00	0	Clear patchy	overcast	drizzle	shower	Colm	9-1
te#	Time					Mileage on	site
65	101	00 to	1012	6		226	5730.3
GN	100	26 to	11:06		_	226	7206
U		:10 to	11/3	2		226	73/10
57		The state of the s			_	000	/3/0/
3		40 to	# 12	-110		26	13203
2	1.	+10	10	THE RESERVE OF THE PERSON NAMED IN		7 3	
3,	1200 12	-619 to_	12:8	24		726	732.6
3	12:29 /	-: 19 to to	THE .	24	-/12	9 2-17	732.6
3//a	12:29 #	- 45	THE .	24	-/12	9 2-17	125 22
3//a	12:29 /	to to	THE .	24	112	9 2-17	125 22
3 /a	12:29 ±	to to	THE .	24	- 1:2	9 2-17	125 22
3//a	12:29 /	to to	THE .	24	- - - - -	9 2-17	125 22
3//a	12:29 4	to to to	THE .	24	- - - - -	9 2-17	125 22
3/ /a	12:29 4	to to	THE .	24	- //2 - //2	9 2-17	125 22
	1:30	to to to	THE .	24	-/12	9 2-17	125 22
ological eleme	nts:	to to to to	THE SHAPE	4	を 2:0 - - - -	9 2267	125 22
ological eleme	nts:	to to to	THE SHAPE	4	を 2:0 - - - -	9 2267	125 22
ological eleme	nts:	to to to to	THE SHAPE	4	を 2:0 - - - -	9 2267	125 22
ological eleme	nts:	to to to to	THE SHAPE	4	を 2:0 - - - -	9 2267	125 22
ological eleme	nts:	to to to to	THE SHAPE	4	を 2:0 - - - -	9 2267	125 22
ological eleme	nts:	to to to to to to to to	ime_	sex	を 2:0 - - - -	9 2267	125 22
ological eleme Rhaphion	nts: nidas termin	to to to to to to Bombyliids	ime_	sex sex	を 2:0 - - - -	9 2267	125 22
ological eleme Rhaphion her arthropods Mydids	nts: nidas termin	to t	ime_	sex seids_	nu	9 2267 2267 mbers	125 22
iological eleme Rhaphion ther arthropods Mydids _ Pompillid	nts: nidas termin (general) Apio	to t	imeSph	sex sex ecids	nu	9 2267 2267 mbers	125 22
iological eleme Rhaphion ther arthropods Mydids _ Pompillid	nts: nidas termin (general) Apio	to t	imeSph	sex sex ecids	nu	9 2267 2267 mbers	125 22
iological eleme Rhaphion ther arthropods Mydids _ Pompillid	nts: nidas termin (general) Apio	to t	imeSph	sex sex ecids	nu	9 2267 2267 mbers	125 22
iological eleme Rhaphion ther arthropods Mydids _ Pompillid	nts: nidas termin (general) Apio	to t	imeSph	sex sex ecids	nu	9 2267 2267 mbers	125 22
ological eleme Rhaphion her arthropods Mydids Pompillid	nts: nidas termin (general) Apio	to t	imeSph	sex sex ecids	nu	9 2267 2267 mbers	125 22
ological eleme Rhaphion her arthropods Mydids Pompillid	nts: nidas termin (general) Apio	to t	imeSph	sex sex ecids	nu	9 2267 2267 mbers	125 22
ological eleme Rhaphion her arthropods Mydids Pompillid Other inse	nts: nidas termin (general) Apio s ects of note	Bombyliids cerids Scoliids	imeSpho	sex sex	Chrysidid Chrysidid	mbers	125 22
her arthropods Mydids Pompillid Other inse	nts: nidas termin (general) Apio Sects of note	Bombyliids cerids Scoliids Graph weed	imeSpho	sex sex sex series	Chrysidid Chrysidid Chrysidid Chrysidid Chrysidid Chrysidid	ambers	125 22
her arthropods Mydids Pompillid Other inse	(general) Apio sects of note Tele n thurberi	Bombyliids cerids Scoliids Scoliids Graph weed other En	imeSpho	sex sex Eriogon	Chrysidid Chrysidid Chrysidid Chrysidid Chrysidid Chrysidid	ambers	125 22
her arthropods Mydids Pompillid Other inse	(general) Apio sects of note Tele n thurberi	Bombyliids cerids Scoliids	imeSpho	sex sex Eriogon	Chrysidid Chrysidid Chrysidid Chrysidid Chrysidid Chrysidid	ambers	125 22

Date <u>9/15/0</u> 6 Surveyor1<						Jobs Sca	5
Overall Mileage							
Weather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Tomp (F
Start /2 30		clear patchy	overcast	drizzle	shower		Temp (F
		clear patchy	overcast	drizzle	shower	02	91
		clear patchy	overcast		shower		
Stop / 330		clean patchy	overcast		shower		
		7	o rereast	ditzzie	SHOWER	colon	91
lite #	Time					Mileage on	14-
8	12	30 to	130			19301	
		to			_		
		to_					
		to_					
	- 1	to_					
		to_					
		to_					
		to_					
		to_					
		to_			_		
		to_			_		
iological elemen Rhaphion	its: iidas termin	natus ?t	ime	sex _	nun	nbers	
ther arthropods (general)	Rombullida	/				
iviyalas	Apioc	erids	Caho	aida			
rompillids		Scollide		-	11. 11.1	-	
Other insec	ets of note	sconids			nrysidids		
	Coner	- Selistres	72.4				
	Telea	ranh weed	,	7			
ants: Croton	inurveri	other hr	AGAM11M		um jascici	ulatum	
ants: Croton Eriogonum		outer Er	ogonum ₋		_ Oenoth	era	
Camissonia		Eriastrum					
Camissonia		Eriastrum					

	me 1300 to 1400 Job 10 W
Miles	
Biologists	
Weather: Temp 89.8	Wind Swessyl SCloud cover Obb Rain D
ville	
sinsix congte	
perhithm exilis	
tomiliaio	
Con y si a i a ()	
4mmophil	
Biological elements:	
	minatus?timesex numbers
inapinomiaus ter	minutus : time sex numbers
_	
Other arthropods (general) Bombyliids Asilids
Mydids	Apiocerids Spherids
Chrysidids	Apiocerids Sphecids Scoliids
Mymerleon	tidsOther insects of note
Wighterfeon	Other insects of note
-	
Plantas Cuatas	T-11 1
Figure 1	Telegraph weed Eriogonum fasciculatum
Eriogonum	thurberi other Eriogonum Oenothera
Camissonia	Eriastrum
Others:	
Vertebrates	
uter	
geor	

Overall Mileage	1498	35					
Veather:							
Time (24 hr)	% Cloud		Sky			Winds (mph)	Temp (F)
Start 10 : 00 mm	0	elear patchy	overcast	drizzle	shower	1 mph	85°
		clear patchy	overcast	drizzle	shower		00
Ston O	6	clear patchy	overcast	drizzle	shower		
Stop 2=00 pm	0	glear patchy	overcast	drizzle	shower	2 mph	92
ite # CE 9	Time _/C	to	2:0	00	_	Mileage on s	
		to				-	
		to_			_		
		to_			_		
		to_			_		
		to			_		
		to			_		
		to_					
	-	to_					
ological elemen	160.		ime	sex	nun	ibers .	
ther arthropods (Mydids Pompillids Other insec	general) Apioc	Bombyliids peridsScoliids_p	A Sphe	silids	Chrysidids		la cocineah

Surveyork		all Time				Jobs	
Overall Mileage			57				
Weather:							
Time (24 hr)	% Cloud		Sky	1		Winds	
Start 1213	2	clear patchy	overcast	drizzle	shower	Winds (mph)	Temp
		clear patchy	overcast	drizzle	shower	B	86
		clear patchy	overcast	drizzle	shower		
Stop		clear patchy	overcast	drizzle	shower		
Site #		to_	12	33	_	Mileage on	/
		to_			_		
		to_			_		
		to			_		
		to_					
		to_			_		
		to_	-				
		to_			_		
iological eleme Rhaphion	nts: nidas termin	patus ?t	ime	sex_	nun	nbers	
- Ompation	Apioc	Bombyliids _ erids _ Scoliids _	Sphe	cids_	`h: 1: 1		
lants: Croton	Teleg	raph weed	ngomina	Eriogon	um fascici	ılatum	

Start 10:00 am Stop 2:00 pm ite # 10:00 W	/500G	Silear patchy overced lear patchy overced learning learn	y ast drizzle ast drizzle st drizzle	shower shower shower	Winds (mph) 1=2 Mileage on s 15006 15006 15006	Temp (F) 89°
Veather: Time (24 hr) Start 10:00 am Stop 2:00 pm	/5006 Cloud Co Co Co Co Co Co Co Co Co C	Silear patchy overcessear patchy overcessear patchy overcessear patchy overcessear patchy overcessear to 10: 5 am to 10: 5 am to 11: 6 am to 2: to	y ast drizzle ast drizzle st drizzle	shower	2-4 Mileage on : 15006. 15006.	90° site 2
Time (24 hr) 9/ Start 10:00 am Stop 2:00 pm ite # 12 9A	O C C C C C C C C C C C C C C C C C C C	lear patchy overcessear patchy overcessear patchy overcessear patchy overcessear patchy overcessear patchy overcessear to 10: 5 am to 10: 6 am to 11: 70 am to 2: 10 am to 2:	ast drizzle ast drizzle ast drizzle st drizzle st drizzle	shower	2-4 Mileage on : 15006. 15006.	90° site 2
Time (24 hr) 9/ Start 10:00 am Stop 2:00 pm ite # 12 9A	O C C C C C C C C C C C C C C C C C C C	lear patchy overcessear patchy overcessear patchy overcessear patchy overcessear patchy overcessear patchy overcessear to 10: 5 am to 10: 6 am to 11: 70 am to 2: 10 am to 2:	ast drizzle ast drizzle ast drizzle st drizzle st drizzle	shower	2-4 Mileage on : 15006. 15006.	90° site 2
Stop 2: 00 pm 12 9A 11	Time	lear patchy overcessear patchy overcessear patchy overcessear patchy overcessear patchy overcessear patchy overcessear to 10: 5 am to 10: 6 am to 11: 70 am to 2: 10 am to 2:	ast drizzle ast drizzle ast drizzle st drizzle st drizzle	shower	2-4 Mileage on : 15006. 15006.	90° site 2
Stop 2: 00 pm ite # 12 9A	Time	lear patchy overced lear p	st drizzle st drizzle st drizzle 45	shower	2-4 Mileage on s 15006. 15006.	90°
ite# 12 9A	Time	lear patchy overces lear patc	st drizzle st drizzle 45 20	shower	Mileage on s 15006. 15006.	site 2 3
ite# 12 9A	Time	Tear patchy overces 20 cm to 10: 5 cm to 10: 20 cm to 11: 20 cm to 2: to	st drizzle		Mileage on s 15006. 15006.	site 2 3
ite# 12 9A	Time	00 am to 10: 5 am to 10: 00 am to 11: 10 am to 2:	+5 55 20	shower	Mileage on s 15006. 15006.	site 2 3
12 9A 11	10:5	5 am to 10: 00 am to 11: 00 am to 2:	20		15006.	3
ological elements: Rhaphiomida		totototo	sex_	num		8
Other insects of	_ Apioceric of note <u>Multi</u> ultimacula brevisuru	Scoliids Spanne!!/Ville Ty Concerns fem El Chlorian en	mo litor, envolum eravium	Chrysidids Ammorited Evodyn (Giant?)	Ma aberti/Polisensportens	ses apachus x parlari/

Vertebrates:

Order	-		4	1	1 2	2	3	4	5	6	8 9	1	0 11	12
Diptera	_	1 DSFLF	Rhaphiomidas terminatus		1	-					-	1	-	16
Diptera	_	2	Nemomydas pantherinus						1-		-	-	+	
Diptera		3 apiocera conv	Apiocera convergens	/					-	1			+	
Diptera		4 apiocera conv	Apiocera crysolasia				V		-	-	-	-	+	
Diptera		5 Black bombyliid	Thyridanthrax atrata		1		1	1			1			
Diptera		6 gold (large) bombyliid clr wng	Villa moliter	1		-	1		-	-	/		-	
Diptera		7 bm striped bombyliid clr wng	Villa lateralis	1			V	-	-	-	-	-	-	
Diptera		8 tiny ground bomby		-	/			_	+-	+	-		+	
Diptera		9 bee mimic asilid	Mallophora fautrix	/				_				-	-	-
Diptera	1	0 checkered assilid	Efferia albibarbis	1/	1		+		-		-		-	
Diptera	1	1 common brown asilid	Stenopogon brevisculus	-		_	+	1		-	-		-	
Diptera	1	2 tiny brown asilid	Stenopogon Iomae	-			-	-	-	-	/		/	
Diptera	1	3 apis mimic syrphid	Eristalis tenax	1			+	+	+			_	-	
Diptera	1	4 conopid	Physocephala texana				11	+	+	-	-	_		
Diptera	1	5 dolichopodid	Condylostylus pilicomis				V	+	-	-	/	_		_
Diptera	10	6 black tachinid	Archytas apicifer	+			-	+	-	-	-	_		
Diptera	17	7 checkered tachinid	Peleteria ?	-			-	+	-	+				
Diptera	_	3 sarcophagid	Sarcophaga sp	1		-		-	-					
Diptera		green bottle fly	Phaenicia sericata	-		_	-	-	-					
Diptera		large humped bombyliid	Toxophora pellucida				-	-	-	-	1			
Diptera		bm assilid w/ w wing base	Stenopogon rufibarbis				-	-	-	-				
Diptera		cactus fly	Volucella mexicana	V		_		-	-			_		
Diptera		musca d	Musca domestica					-	-	-				
Diptera	-	Tabanid black	The state of the s		-			-	1			_	7	
Diptera	-	red aslilid	Tabanus punctifer				. /		_		-			
Diptera		common ottitid	Saropogon luteus		_	_	V					-		
Diptera		green tephritid			-									
iptera		med brone syrphid	Eristlis aenea			_								
iptera		white therivid		-										-
iptera		small syrphid	Thereva semitaria	-										
iptera		common small syrphid	Syritta pipiens	-										
iptera		tachinid on Hemip	Allograpta obliqua				~							
iptera		Red abd tachinid	Cylindromyia							/				
iptera			Gymnosoma fuliginosum				V				-			
iptera		small bombyllid	Garon											
		brown bombyliid of ef	Poecilognathus						/					
iptera		bombyliid	Thyridanthrax pallida											
iptera iptera	37				/									
		bombylid	Exoprosopa butleri	1			/	1						
ptera	_	bombylid												
ptera		bombylid	Villa junctura											
ptera	_	bombylid	Neodiplocampta mira								V			
ptera	_	tachinid	Eumachronychia									_		
ptera		syrphid	Pseudodoras clavatus											
ptera	_	bombyliid	Heterostylum robustum											
ptera		cranefly	Nephrotoma										_	-
ptera	46		Paragus											
ptera		Therivid	Ozodiceromya									\rightarrow		
otera	48											1		
otera	49											+		
otera	_	med fly	Ceratitis capitata							-				
otera	51						-	-	-	-		-		-

1. 9

Diptera	5	2		1	T	T			- 6	d	9	64	64	11
Diptera	5	3		-	+-	+	_	+	_		_			
Diptera				-	+-	+	_	+	_	_				
Diptera	5	5 syrphid	Eupeodes volucris	-	-	+		+	_					
Diptera	-		Eupeodes volucins	-	+-	+		1						
Diptera	-	7 bombyliid	Mondinteressite	_	-	-								
Diptera	_	8 Huge bombyllid	Neodiplocampta mira	_	+	_	V							
Diptera		9 dark winged tachinid	Ligyra gozophylax	_	1		V							
Diptera		med syrphid striped thorax	Trishipuda			_	-	7						
Diptera			Law			1	E							
Diptera		1 tan bombyliid near #6	Villa											
Diptera		2 small black bombyliid				1								
		small brown/silver abd bomb	Eucessa rubens											
Diptera		small blk bomb elongate	Paracosmus edwardsii											
Diptera	_	small dark asilid nr 21												
Diptera		brwn bombyliid solid wing	Poecilanthrax arethusa			T				-	1			
Diptera		tan bombylid blk dots on abd	Villa (Chrysanthrax) adumb	rata									-	_
Diptera		bombyliid near #5	Villa miscella (Thyridan	Hoon)		1	-						
Diptera	-	near 44		1								-	-	
Diptera	72	Mexican fruit fly				\top			+-			-	-	
Diptera	71	Giant asilid	Promachus aldrichii	U	//	-	1	٠.		-		-	-	_
Diptera	72	bombyliid near wood	Anthrax irroratus	-	-	+		-	-	-	-	-	-	_
Diptera		small grey bombyliid	Apheobantus mus	1	_	+	-		-	+		-	-	
Diptera		yellow-jacket mimic syrphid	Spilomyia interrupta	_		-		-	-	+		-	-	
Diptera		soldier fly	Hermetia illuscens		-	-	-	\vdash	+	-	-	-	_	
Diptera	76	small cactus fly	Copostylum marginatum	+	-	\vdash	+	-	-	-	-	_		
Diptera		large cactus fly	Copostylum quadratus	+		-	+	-	+	-		_	-	
Diptera		bee mimic rust thorax	Eristilis obsoletus	+		-	-	-	-	-		-	_	
Diptera		bee mimic wht band abd	Eristilis latifrons	-			-	-		-		_		
Diptera		bee mimic small wht bnd abd	Eristilis arbostrum	+		-	-		-	-	\vdash			
Diptera	70.0	Nausigaster	Nausigaster unimaculata	+		-	-	-	-					
Diptera		large grey asilid	Proctacantha occidentalis	-		_	+	-	-					
Diptera		large asilid green eyes		-			-							
	QI	rango donia green eyes	Diogmites pulchre	-		_	-							
	84	X:	Exoprosopa divisa	-			V		-					
	05	-11	Thyridantarax nuger	DY .			V		•					
	00		Chysic danibiles missel	103	-		P		+		-	-		
ymeno	1	common bembix	Bembix americana											
ymeno		bright yellow sphecid		-	/		-	/	_	//	/	-	/	/
ymeno	77.0	large fly killer	Philanthus multimaculatus	-	1	_	-	-	1		1	1		
ymeno			Bembix melenopsis						-	,				
ymeno		non amophila	Taschytes elongatus	-	/		1		-	/	1	_		
ymeno		red grasshopper killer	Prionyx thomae	1	/					1			-	-
ymeno		cricker killer	Prionyx foxi	~	/		V			-	-		-	-
-			Chlorion aerarium	-			1			_	-	-		
ymeno	_	mud dauber	Scellphron caementarium	-			V.	/	8	/	-	+	-	
ymeno	_	arge amophila	Ammophila aberti	/			V		/	1	/	1	-	1
ymeno		med amophila	Ammophila azteca				V		/		/	1		
ymeno		small amophila	Ammophila		,									
ymeno		arge polistes	Polistes apachus	/			1		1	/	/		-	\rightarrow
/meno		ned polistes	Polistes fuscatus							-	_	-	-	-
meno	14 s	mall polistes	Euodynerus annulatum				1						-	\dashv
meno				- 4										

Hymeno	16	pepsis med	Pepsis chrysothemis					7	- 1	-0	9	7	111	-
Hymeno	17	large dark pompillid	, spaid anyddaidinig	+	_	+	-			-	-	U	W	
Hymeno		small dark sphecid nr pompillio	1	+	+-	+	-	-	-	-	-			
Hymeno		med pompillid		+	+-	-	-	-	-		-			
Hymeno		common chrysidid, large	Pamopes edwardsii	+	-	-	-		-	-	-	1-		
Hymeno		med chrysidid w/green abd.	Chrysis	+	+-	-			_	4	1	4		
Hymeno		apis	Apis mellifera			-		_			-			
Hymeno		tiny red/blk snad sphecid	Tachysphex	-	-		-	1	-	0	-	-	//	1 -
Hymeno		small red pompillid	racnyspnex	-	+	-	V	-	_		_			
Hymeno		blk/red pompillid	Liris	+	+	+	-							
Hymeno		large blk/orange grasshop kill	LIIIS	+	+-	-	V			4				
Hymeno		greenbee yellow abd	Ammantana	+ ,	-	+	-							
Hymeno		checkered bee	Agapostemon	-	+-	-	_						-	
Hymeno		tiny tachites	Ericrocis lata	-	_	-								
Hymeno			Oxybelus pitanta		1									
Hymeno		yellow jacket like	Bicyrtes ventralis		+	-	V			-				
		darker yellow jacket like	Bicyrtes capnoptera											
Hymeno		a yellow sphecid	Cerceris femorrumbrum				V		1					
Hymeno	33		Clypeadon laticinctus											
Hymeno	34													
Hymeno		small compact yellow	Anthidium placitum											
Hymeno		" small	Dianthidium parvum											
Hymeno		" very dark	Anthidiellum notatum											
fymeno	10000	vespid w/boulbus abd	Eumenes bollii							-				
lymeno		nr dorsalis narrow body dk wing	Polistes exclamens				1/			-				
lymeno		tiny vispid w/black tip	Parancistrocetus toltecus											
lymeno		tiny vespid w/yellow	Leptochilus boharti											
lymeno	_	scoliid	Campsomeris tolteca				1	•			-			
lymeno	43	Pogonomymex c	Pogonomyrmex californicus	-	-	-	11	-	1		_	/	-	10
lymeno	44	black harvester ant	Meserpergandi			_	-		-	-	_	0.00		
lymeno	45	argentine	Iridomyrmex humilis	v									-	
lymeno	46	gray ant on riparian	Liometopum			1							-	
lymeno	47	small re/blk ant on sunfir					1		-				-	
lymeno	48	near ammophilia (blk)	Ammophila placida							-	_		-	
lymeno	49		Halictus ligatus						-				-	
lymeno	50		Sphex ichneumoneus			1	1					-	-	
ymeno	51		Dasymutilla clydenetra			-	-	-			-	-	-	-
ymeno		Control of the second second second	Dasymutilla sackeni			-	1				-	-	-	
ymeno	53 t		Chalybion californicum			-	-				-		-	
ymeno	11470		Melissodes (male)			-					-	-	_	
ymeno			Megachile			-	-				-	-	-	
ymeno	56 n	AND THE RESIDENCE AND ADDRESS OF THE PARTY O	Prionyx				-				-	-	_	
ymeno	57		Cerceris sextoides	-					-		-	-	_	
ymeno	58 T		Tachysphex				-	•			-	-		
ymeno	59 b		Melissodes (male)				-				_	_		_
ymeno	60 b		Megachile	-		-	-				_			
meno	61 b		Halictus ligatus											
meno	62 b		falictus tripartitus											
meno		phecid	ranotus iriparittus		_									
meno	64 b		Angachile											
	65 b		Megachile	-										1
	_		nthophora urbana							1				1
meno	66		Philanthus ventilabris		-									

Hymeno	68		cerceris				6	8	9	20	_	
Hymeno			Cerceris	-	-			1				
Hymeno		pompillid	Aporinellus									
Hymeno		pomillid red wings	Apormenus	-	_							
Hymeno	_	brown sphecid	Astrata	+								
Hymeno	_										1	1
Hymeno			Cerceris femurrubrum					1	-	1	4	-
Hymeno	75		Tachysphex				-					
Hymeno	_		Tachysphex									
Hymeno		Gortine sphecid, small rust w	Hoplisoides diversus						-	V	4	
		red pompillid	Ageniella			/			/	de	4.	+
Hymeno		Goyrline specid							1	1	V	
Hymeno	79	V	Nomada								1	
Hymeno		bee	Megachile									
Hymeno		bee	Colletes (male)									
lymeno		bee	Colletes (female)									
lymeno	83		Isodontiaelegans									
Hymeno		bee	Lasioglossum (Dialictus)									
lymeno		small chrysididae green	Argochrysis sp					-				
lymeno		bee	Halictus ligatus				_					
lymeno	87									-		_
lymeno	88	cicadellid killer	Hapalomellinus		1	/				-1	- +	
lymeno	89									4	*	
lymeno	90					_	-			-		_
lymeno	91				+-+	-	-			+		
lymeno	92		Cerceris		-	_						
lymeno	93		Cerceris		+		-		-	-		
lymeno	94		Centris (female)		+	-	+			1		
lymeno	95		Nomada		+		-					
lymeno	96		Colletes (male)				-		\rightarrow			
lymeno	97		Xeromelecta californica		-		-					
lymeno	98		Triepeolus (male)		- 1		-					
lymeno	99		mepeoras (maie)									
	100		Halictus ligatus		-							
	101						1					
	102		Melissodes (male)									
	103		Xylocopa veripuncta		-			/				/
	104		Anthidium (male)									
	105		Lasioglossum									
	106											
	_	iphiid										
	108	iprilid										
	109		Cerceris									
	110											
	111											
	112		Cerceris									
	113		Cerceris									
	114											_
	115		Megachile						_	_		
	16									+	-	
	17		Anthophora						+	-	-	_
	18		Halicttus farinosus (male)				1	-	-	-	-	
meno 1	19 A	nomalinae	,					-	-	-	-	_

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Hymeno			Diadasia (male)							8	1	- "	0 11	12
Hymeno	12	21	Bicyrtes	_		-	-	+	-	-	+-	+-	-	
Hymeno	12	22 red pompillid (med size)				+		-	-		+	-	-	
Hymeno	12	3 small yllw/bkl compact	Dianthidium (male)								+	-	-	
Hymeno	12	4 small black vespid					V		-	+	-	-		
Hymeno	12	5 Bumble bee	Bombus crotchii (male)						-	-	-	-		_
Hymeno	125	a Anthophorid	Svastra (male)					+	+		-	-	-	_
Hymeno	12	6 Blk. Sphecid w/red spot abd	Stizoides renieinetum			_		+	+-		+	-		
Hymeno	12	7 hairy yellow scolid	Trielis alcione		-	+	1./	-	-	-	-			_
Hymeno	12	8 Vespid (weird)	Maricopodynerus		-	+	-	+	+		-			
Hymeno	12	9 Bumble bee	Bombus crotchii (male)		+	1	_	+	+		-			_
Hymeno	13	0 bee black and yellow sm.	Nomada			+	-	+	-		-			
Hymeno	13	1 red ichneumonid blk wngs					+	+-	-	-	-			_
Hymeno		2 short, near #4	Tachytes	_	+	+	-	-	-		-	-		
Hymeno	133	3 near #14 vespid				-	+		+	-	-			
Hymeno	134	4 Carpenter bee	Zylocopa varipuncta	_	-	+-		+	+	-				
Hymeno	13	5 yellow jacket	Vespula	_	_	+		-	+	-				
Hymeno		small chrysidid w/purple abd.	Argochrysis mesillae			-		-	-					
lymeno		green bee pale abd	Agapostemon		+	-		-	-	-				_
lymeno		B large red multillid	Dasymutilla coccineohirta			-		-				-	1	
lymeno	139	nr apachus no pronotal marks	Polistes dorsalis	1	-	-	V		-		-		ay .	
lymeno		blk thorax, clear def cross abd	Eumenes crucifera	1		+-	+		-		_		/	_
lymeno	141	large yellow Bembix	Bembis melanaspsis			+-	1/		-					-
lymeno		large, elongate rust Cercerus	Cercerus bicornuta	1	1	+	-		-			_	. /-	
lymeno		nr 68, w/intersegmental blk das			1	+	V				/		4	-
lymeno	144	nr 92, larger, more blk on abd	Eucerceris aerenaria	+	1			-	-				-	_
lymeno	145	yellow microbembix	Microbembix californica	-		+	1	-	-	-	-	-		_
lymeno	146	thin blk-yellow wasp, fat female		1		+	1/	-			-	-		_
	147					1	-		-		-	-	-	_
lymeno	148				+	-	1				-	-	-	_
ymeno	149					-				-	-	-	-	_
ymeno	150				-	_	-			-	-	-		_
ymeno	151	large	Pepsis thysbe			-	1	-	-bA		-	-		_
ymeno	152	med w/ blk wingbase, yellow an			1				-0			-	_	_
ymeno	153	pepsis large black			1					-	-	-	-	-
ymeno	154	with orange abd base	Cercerus californicus		_					-	-	-	-	-
and the second		small narrow abd	Mimesia								-	-	_	_
ymeno	156	nr 74, larger	Oxybelus uniglumis					-		-				-
ymeno	157	Gasteruptrupidae										-	-	-
ymeno	158		Nomadopsis									-	-	-
		Black playsis	Papsis mexicana						-	-	-	1		_
europte	1	Antlion	-PAIS MEXICANA	/	~	-			4.			H		1
europte	2	greewnlacewing	Chrysopa					-	2			-		-
										-				
eteropt	1 :	small lygaeid	Nysius											
teropt	2		Arhyssus				-	-	-		-	-		-
teropt	3 1		ygus				-			~				_
teropt	4 1		Vabis					-		-	-	_		_
teropt	5 0	Contract of the Contract of th	Geocoris					-				-		_
teropt	6 1	And the state of t	Zelus					-	-	1	/	,	/	1
teropt	7 b		Sinea diadema		-	-	1.0	•	-	- 4	1	4	10	d

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Heteropt	8		Rhynocoris ventralis							6	8 -	//	31	-
Heteropt	9	common milkweed	Lygaeus kalmii		-	-	4	/	-	/				-
Heteropt	10	common Pentotomid	Chlorochroa uhleri		/	-	V	-		-		1		
Heteropt		Harlequin	Murgantia histrionica		-	-	V	-	-		-6	10		-
Heteropt		large leaf footed bud	Leptoglossus clypealis	-	+	-	-	-	-	_				
Heteropt		reduviid	Zelus renardii	-	-	-	-	-	_					
Heteropt	_	smal pentotomid	Thyanta	-	-	-	-	-	_					
Heteropt		Alytide	Alydus	-	-	-	-	-	_					
Heteropt		Phymatid	Phymata	-	-	-	-	-						
Heteropt	17		Alydus	-	+	-	_	-						
Heteropt		Scutellerid	Euptychodera corrugata	-	-	-	_		_					
Heteropt	_	Rhopalid	Harmostes	-	-	-	-	-						
Heteropt		large purple pentatomid		-	-									
Heteropt	21	re-go porpre pentatornia	Chlorochroa ligata	-	-	-								
Heteropt	22		Sinea complexa	-	-									
Heteropt	23		Holcosthus											
Heteropt	24		Oncopeltus fasciatus											
Heteropt	_	negro bug	Corimelaena lateralis											
Heteropt														
Heteropt		SPACE FOR NEW SPECIES												
Heteropt		largid												
		Pentatomid on Horhound	Trichopepla aurorae											
Heteropt Heteropt		small red lygaeid on senicio												
	11. 1. 1. 1. 1.	arge scutellarid												
leteropt		saldidae												
leteropt		ingid on sycamore												1
leteropt	33 (common pentatomid not narro	w Chlorochroa sayi											
Heteropt	1		11-1-1	1										
leteropt	2		Homalodisca lacerta	-										
leteropt	3			-	-									
leteropt	4													
leteropt	5			-										
leteropt	_	erigated leaf hopper												
otoropt	0 0	engated lear nopper			-	-								
oleopte	11	2 spot	Diabrotica unedecimpunctat											
oleopte		eird cucumber	Diabrotica balteata	а	-	+	-		-					
oleopte		ripped jemsen weed	Lema trilineata	-	-	-					/			
oleopte		lipiphorid		-	-					-				
oleopte		ack mustard chrysomelid	Macrosiagon flavipenne	-		-								
oleopte		beetle	Coscinoptera aeneipennis	-		/						/		i
oleopte	_	gweed weevil	Cotinus texana	/	1	/	-	/	/	1	1	/		/
oleopte	_	elyrid	College											
oleopte		convergens	Collops	-										
		ge coccinellid	Hippodamia convergens							-				
	_	ge eleodes	F1											
	1 lai	An election	Elodes gracilis	1					-					
	_													
	3													
leopte 1	-													
			Adalia bipunctata											
	_		Coccinella californica											
		prestid	Acmaeodera											

Coleopte		8 scarab	Ligyrus gibbosus			T		_	6)	- 0	7	10	16	-
Coleopte	15	9 scarab	Ligyrus gibbosus		1	+	+		-	-	-	+		
Coleopte	20	Curculionid		+	+	+	-	+	-	+		-		
Coleopte	21	1 teneb		-	+-	+	-	-	-	-	-			
Coleopte	22	eucalyptus borrer		+-	+	+-		-	+	-	-	-		
Coleopte		small buprestid	Agrilus angelicus	+	+	+	-	-	-	-				
Coleopte	24		Diabrotica vittata	-	+-	-	+	-	-					
Coleopte	25	5	Coccinella septempunctata	+	-	-	-	-	-	_	-			
Coleopte	26		Coccinena septempunctata	+	+	+	-	-						
Coleopte	27	curculionid on Jimsen		-	+	+	-	-	-					
Coleopte		NEW SPECIES		+	+	+-	-	-						
Coleopte		eucalyputs chrysomellid		-	-	-	-							
Coleopte		orange meloid on sunfir	Momentus	-	-	-								
Coleopte		medium green buprestrid	Nemognatha lurida apicalis	-							V	161		
Coleopte	32			-										
Coleopte	33				-	-								
Coleopte	34													
Colcopte	34	1	1											
			Polywhala					0				~	4	-
Odonata	-							1						
Odonata		green darner	Anax junius	-	-	-		/X	1	/	1	1		-
	_	blue darner	Aeshna multicolor		-	-		100	1	/	-	- 1		
Odonata	-	red libellulid	Libellula saturata					1/4	A	/		-11-	-	
Odonata		common small libelulid	Sympetrum corruptum	/	-	-	1/	K	V	-		- 7	-	
Odonata		brown blotched lib	Tramea onusta	/	10	-		x	V		1	-+		0
Odonata		black blotched lib	Tramea lacerata	-				12	10	/	-			
Odonata	_	yellow cruiser	Pantala flavescens	/		10	-	14	1-	/		11		-
Odonata		cruiser w/ black spot	Pantala hymenaea	-				2			0	51		
Odonata		small green lib	Erythemis collocata					1			-	-	-	-
Odonata	10	tiny orange lib	Perithemis intensa					V.		-	-		-	-
Odonata	_	blue damsel	Argia	/							-	-	-	-
donata	12	green damsel								-	-	-	-	_
donata		very small dark lib	Pachydiplax longipennis						-		-	-	_	-
donata	14 :	small dark red lib.	Sympetrum illotum						-	-	-	-	-	_
donata	15	clubtail, gray with yellow spot	at Brechmorhoga mendax	1	-		./		-		-	-		\dashv
donata	16 r	near no 3	Libellula croceipennis		-		V		-		-	-		_
donata	17 F	Red rock skimmer	Paltothemis lineatipes						-	/	-		_	_
	-								-		+		-	\dashv
epidopt	1		Pieris rapae		_			V	-					
epidopt	2		Pontia protodice	1			//	1	-	-		/		
pidopt	3		Plebejus acmon	-		-	V	×	-	-	V	-	"	-
pidopt	4		Strymon melinus	1	-	-	-			-				
pidopt	5		Brephidium exilis	-	-	-	V	T	-	-		-		
pidopt	6		Hylephila phyleus	/				6		-	1.	1		
pidopt	7		Colias eurytheme	-		-	V	0	-	-	1	te		4
pidopt	8		Vanessa cardui	-		-			-			1		
pidopt		yralid	variossa cardui						-	/				
	10	Y. sering	Consumitation											
	11		Caenurgia togataria								-	,		
	12		Junonia coenia				V		-	-	-	P		1
	_		Hemiargus isola											
	13		Hemiargus ceranus											
oidopt 1	14		Vanessa virginiensis											

Lepidopt	-	15	Habrodais grunus							8	1	10	6.0	12
Lepidopt	_	16	Danaus plexippus						-					
Lepidopt	1	17	Danaus gillipus		+		-	-		~		-		
Lepidopt	1	18	Papilio rutulus		_	_	+	+	-			-		
Lepidopt	1	19	Limenitis lorquini		-	_	+-	-	+	-	-	-		
Lepidopt	2	20	Pyrgus albescens	-	+	-	+	+	-	-	-			
Lepidopt	2	21	Atalopedes campestris	-	+	_	-	-	-	-	1	~		V
Lepidopt	2	22	Lerodia eufala		+	-		+	+	-	-	~	-	
Lepidopt	2	23	Nymphalis antiopa		+	+	+	+	-	-				
Lepidopt	2	4	Leptotes marina		-	+	-	+	-	-				
epidopt	2	5	Ochlodes sylvanoides	-	-	-	+	-	+		-			
epidopt	2	6	Hyles lineata	-	+	-	-	+	+	+	-			
epidopt	2	7	Catacola irene			+	-	+	-	-	-			
epidopt	2	8	Papilio cresphontes	-	-	-	+			_	-			
epidopt	2	9	Schinia	-	-	+-	-	+	L					
epidopt	3	0	Spodoptera	-	-	+	+	-	-	-				
epidopt	3	1	Manduca sexta	-	+	+	+	-	-	-				
epidopt	32	2	Eumorpha acmon	-	+	-	+	+	-	-				
epidopt	33	3	Papilio biardi	-	-	+	+	-	+	-				
epidopt	34	4	Polites sabuleti	-	-	+		-	+-	-				
epidopt	35	5	Eurema nicippe		-	+	-	-	-	-				
epidopt	36	3	Vanessa annabella	-	+	+	-	-	-					
epidopt	37		Erynnis funeralis	+	-	-	-	-	-					
epidopt	38	3	Agraulis vanillae	V	-	-	-	-						
epidopt	39		Melipotis jacunda	-	-	-	-	-	V	-				-
epidopt	40		Acontia sedata	-	-	+	-	-	+					
epidopt	41		Schinia citronella	-	-	-	-		-					
epidopt	42		Schinia scarletina		-	-			-					
epidopt	43		Everys amyntula	-	-	-		-	-					
epidopt	44		Heliopetes ericitorum	-	-	-			-					
pidopt	45		Apodemia mormo	-		+		-						
pidopt	46		Erynnis tristis	-				-						
pidopt	_	Pyralid	A Let e	-		-								
pidopt		like vespid on willow	Paranthrene robiniae	-		-				-				
		into roopid on while			_					3				
thopte	1	T. pallidipennis	N-antiyla	-	/		,		/			1		
thopte		T. orang leg	Trimerotropis pallidipennis	-	/-	./	V,	/	1	•	0	1	-	
thopte		T. stragne	Trimerotropis californica		V		1	/			V	7	0	-
thopte		Diamond leg	Derotmema saussuraenum	V	/			-				V		
thopte		Melanoplus blue leg	Psoloessa thamnogaea	-	_				_					
thopte		Melanoplus red leg	Melanoplus Melanoplus	-			V		-					
thopte	_	red wing						-						
thopte		green schistocerfca	Dissosteira pictipennis											
thopte		common schistocerca	Schistocerca Schistocerca	/			_			_				
		green treecricket	Schistocerca nitens	/			V			-				
		T. blue withblue leg	Oecanthus											
200		angle withblue leg	Trimerotropis pseudofasciata											
	_	green on Heterotheca	Microcentrum rhombifolium							V				
	_	T. pink leg		11.4						_				
		green melanoplus	Trimerotropis	Me										
TOPIC		T. blue leg w/yellow wng	Melanoplus yarrowii Trimerotropis fontana							~				
hopte	16 7								- 4				_	_

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Orthopte	18	Tetrigidae				1	_	T			·	1	-	12	1
Orthopte		Jerusalum cricket	Stenopelmatus new species			+		-				-			1
Orthopte		narrow katydid	Scudderia mexicana	-	-	+	+	+	-	-	-	-			ł
Orthopte	21	field cricket	Gryllus	-	+	+	+	-	-	-	-				1
Orthopte		sand cricket	Grynus	-	-	-	+	-	-	-	_				1
orthopte	22	sand cricket					-								1
Vlantode		mantid					_					- /0	/		
			Iris oratoria	/	-	-	V	V	V	./	V	W		/	0
Mantode		small adult brown	Stagmomantis californica									7			
Mantode		very small adult	Litaneutria minor												
Blatodes	1	sand roach													
					-	-								_	
					-	-									
-					-	-					_		-		
	-				-	-	-								
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	, x	/	_	Ť	7	7	-		1	-	10	11	
FAMILY	Species											<u> </u>	
ADOXACEAE		/											
Mexican elderberry	Sambucus mexicana	//	-	+			1		-				
AGAVACEAE						1		1					
Our Lord's candle	Yucca whipplei				1	+		1					
AMERANTHACEAE	. avaaappror			-		+	+	+		,			
white tumbleweed	Amaranthus albus	/	1	1	1	+	1	1	-		-	-	-1/
Palmer's amaranth	Amaranthus palmeri				-	+	-	1	-	-		-	
ANACARDIACEAE	, and diana painter	_	1	-	-	1	-		+				
laurel sumac	Malosma laurina		1	1	-	-	-	-					
lemonade berry	Rhus integrifolia	1	1	-	-	-	-		-				
sugar bush	Rhus integritoria Rhus ovata		-	-		+		-	-				
basketbush	Rhus trilobata					-	-	-	+		-	-	
Brazilian Peppertree	Schinus terebinthifolius		-	-		-	-	-	-				
	Schinus terebinthifolius Schinus molle				-	-	-	1	-		-		
Peruvian Peppertree	SCHINUS MOILE	/	/	-	-	+	-	-	-				
APIACEAE	Frankling	-	-	-	-	-	-	-	-				
anise	Foeniculum vulgare	-	-	-	-	-	-	-					
woolly-fruit lomatium	Lomatium dasycarpum	-	-		-	-	-	-	-				
southern tauschia	Tauschia arguta		-	-	-	-	-						
APOCYNACEAE			-	-	-	-	-	-	-				
oleander	Nerium oleander				-	-	-	-					
ARECACEAE			_		-	-	ļ.,	-					
fan palm	Washingtonia			-	-	-	-		-	/			
ASCLEPIADACEAE				-	-	-	-						
Narrow-leaved milkweed	Asclepias fascicularis								-				
milkvine	Funastrum cynanchoides	-						_	-				
ASTERACEAE					-		~						
California yarrow	Achillea millefolium												-
pineapple weed	Amblyopappus pusillus	-		/		/	1				/		//
Annual bur-weed	Ambrosia acanthicarpa /	/	/	/	/	-	/		/	/	4	/	V
	Ambrosia dumosa												
western ragweed	Ambrosia psilostachya								/				
California sage	Artemisia californica				-		/		-				
tarragon	Artemisiea dracunculus								/				
great basin sagebrush	Artemisia tridentata							1		,	/		
mule fat	Baccharis salicifolia			1			/		/	/			
coyote bush	Baccharis sarathroides												
Sweetbush	Bebbia juncea												
Tocalote	Centaurea melitensis				V	-	/					-	
smooth tarplant	Centromadia pungens laevis												
white pinchushion	Chaenactis fremontii												
yellow pinchushion	Chaenactis glabuiuscula												
common pineapple weed	Chamomilla suaveolens	,	/				/						
bull thistle	Ciricium vulgare	/											
lax-leaved horseweed	Conyza bonariensis	/)	/					_					9
norseweed	Conyza canadensis	/				/	1						/
ascicled tarplant	Deinandra fasciculata												
Kellogg's tarplant	Deinandra kelloggii												
paniculate tarplant	Deinandra paniculata												
southern tarweed	Deinandra parryi (CNPS list)	/	/		/			/					
prittlebush	Encelia farinosa	/		/	1	/	1					-	
goldenbush	Ericameria cooperi											-	
nterior goldenbush	Ericameria linearifolia		-								-	-	
									-				
Palmer's goldenbush	Ericameria palmeri												

California filago	Filence seller		_				6	-		8	40	
narrow-leaved filago	Filago californica	-										
California everlasting	Filago gallica	-										
Camornia evenasurig	Gnaphalium californicum	-		_								
matchweed	Gnaphalium canescens	-		_								
matchweed	Gutierrezia		_	_								
sunflower	Haplopappus palmeri	-	/			/	,			1	1	1
slender sunflower	Helianthus annua	-	1	-	/	-	-		-	-	1	-
	Helianthus gracilentus	2	/			/				/		
telegraphweed	Heterotheca grandiflora	1	-		V	1	1 /		V		ſ	-
goldenaster	Heterotheca sessiliflora	-										
goldenbush	Isocoma menziesii	-										
western poverty weed	Iva axillaris							/				1
prickly lettuce	Lactuca serriola						-				-	
southern goldfields	Lasthenia coronaria											
Scalebroom	Lepidospartum squamatum		/									
cudweed aster	Lessingia filaginifolia								-	-		
fall vinigar weed	Lessingia glandulifera											
chicoree	Malacothrix california											
chicoree	Malacothrix saxatilis											
woolly marbles	Psilocarpus brevissimus						1					1
round wolly marbles	Psilocarpus tenellus											1
	Rafinesquia neomexicana											
Senicio	Senicio dougliasii	-						+		1	-	-
orickly sow-thistle	Sonchus asper									1	+	
common sow-thistle	Sonchus oleraceus						1		+	+		
short wreath plnat	Stephanomeria exigua						-	_	_	_	-	V
all wreath plant	Stephanomeria virgata	/					1	+	+	+	-	
fandelion	Taraxacum officinale			1			1			-		
	Verbesinia encelioides			1			1	*	+-		//	/
piney cocklebur	Xanthium spinosum		1			+	-	-	-	V	V	
ocklebur	Xanthium strumarium				_	1			+	-		
BORAGINACEAE		1			+	-		-	+		-	
anchers fiddleneck	Amsinkia menziesii	//		1	_	-	1	-	+	-		
ryptantha	Cryptantha	-			-		-/	-	+	-		
leveland's cryptantha	Cryptantha clevelandii				1	-	-	-	+			
ommon cryptantha	Cryptantha intermedia				1			-	-	-		
uadalupe cryptantha	Cryptantha maritima				-	-						
eliotrope	Heliotropium crassavicum				-				-			
ender pectocarya	Pectocarya linearis						-					
ire-stemmed popcorne flow					+-				-			
RASSICACEAE	3 Jo roptoraduo				-							
egant rock-cress	Arabis sparsiflora				-				-			
ahara mustard	Brassica tournfortii				-							
ack mustard	Brassica nigra	_		-	/							
nortpod mustard	Hirschfeldia incana			_	1	/						
eppergrass	Lepidium nitidum	-		/		-	/		-	8		
	Lepidium virginicum	-			-							
e a contract of the contract o	Sisymbrium altissimum											
	Sisymbrium erisimoides		/							1		/
	Sisymbrium irio									/		-
ACTACEAE	Raphanus sativus					_						
	Ferocactus cylindraceus Opuntia basilaris											

prickly pear	Opuntia littoralis				_	4	/					_
valley cholla	Opuntia parryi	1		-		-	/					
silver cholla		6			_							
CAPPARACEAE	Opuntia echinocarpa	-										
bladderpod												
CARYOPHYLLACEAE	Isomeris arborea			-								
windmill pink	07	-										
	Silene gallica											1
Boccone's sand spurry	Spergularia bocconei											7
CHENOPODIACEAE Saltbush	E-Division						L					1
	Atriplex canescens											
red saltbush	Atriplex rosea											1
Australian saltbush	Atriplex semibaccata										1	1
bract saltbush	Atriplex serenana										+	1
lamb's quarters	Chenopodium album								1			1
pitseed goosefoot	Chenopodium berlandieri									1		1
Kochia	Kochia scoparia							+-	1.,		/	1
russion thistle	Salsola tragus	/				1				-	1	/
CONVOLVULACEAE									-	-	V	1
morning-glory	Calystegia macrostegia								-	-	-	-
CRASSULACEAE						-		-	-	-	-	-
sand pygme-stonecrop	Crassula connata				1	-			-	-	-	
CUCURBITACEAE				+	-				-	-		
coyote gourd	Cucurbita palmata			+-	+	-		-	-	-		
melon	Cucurbita		-	-	-	-		-	-	-		
wild cucumber	Marah macrocarpus			+	-			-	-	-		
CUPRESSACEAE	- Indirect pure			+	-	-		-	-			
California juniper	Juniperus californica	+	-	-	-	-		-		1		
CUSCUTACEAE	oumporus camornica	-		-	-							1
Oodder	Cuscuta californica			-	-							
Dove weed	Eremocarpus setigerus	/		-	-							
RICACEAE	Eremocarpus seugerus			-	-							
Adam's manzanita	Amtochushulas -t t t	-		-								
Summer-holly	Arctostyaphylos glandulosa	-										
UPHORBIACEAE	Comarostaphylis diversifolia											
James and the second se	0.											
purge alifornia croton	Chamaesyce micromeria				/							
	Croton californicus		Ba	/	1			/				
purge	Euphorbia peplus			/								
astor-bean ABACEAE	Ricinus communis	/	/	/	/							
atclaw	Acacea greggii											
omona milkvetch	Astragalus pomonensis											
coweed	Astragalus spp.										\neg	
alo verde	Cercidium floridum									-		
panish clover	Lotus purshianus								-		-	
verleaf lotus	Lotus argophyllus						-					
er weed	Lotus scoparius						-				-	
rigose bird's-foot trefoil	Lotus strigosus					_	-			-	-	
hasful	Pousopia					-	-			-	-	
	Lotus sp.								-	-		
niature lupine	Lupinus bicolor			-			-	-				
nse-flowered chick lupine	Lupinus microcarpus		-			-	_					
royo lupine	Lupinus suculentus			-	-		_					
r clover	Medicago polymorpha		-									
alfa	Medicago sativa			-								
and the same of th	modicago sativa	1		- 1								

sourclover	Medicago indicus										-
tall nasty clover	Melilotus indica				-		-	-			-
Psorothamnus	Psorothamnus arborescens			-	-	-		-	-	-	-
clover	Trifolium				-				-		
common vetch	Vicia sativa				+		-	-			
winter vetch	Vicia villosa			_	-	+	-	_			
FAGACEAE	Troid Villodd	-	_		-	-					
coast live oak	Quercus agrifolia	-		+-	-	_					
Engelmann	Quercus engelmannii	+		_	_	_					
California scrub	Quercus berberidifolia	-			-						
GERANIACEAE	Quercus berberialiolla	-									
long-beak filaree	Emelium hatau	-			_						
red-stem filaree	Erodium botrys			-	/					/	
GROSSULARIACEAE	Erodium cicutarium	/		-	/						
hillside gooseberry											
HYDROPHYLLACEAE	Ribes californicum										
baby blue-eyes	Nemophila menziesii										
thickleaf yerba santa	Eriodictyon crassifolium										1
hairy yerba santa	Eriodictyon trichocalyx										-
caterpillar phacelia	Phacelia cicutaria										-
common phacelia	Phacelia distans								-		-
wild canterbury-bell	Phacelia minor					1					+
JUGLANDACEAE							-	-	-	-	-
Black Walnut	Jugians			_		+	+	-	+	-	+
LAMINACEAE				+	-	+	+	+	-	-	+
Horehound	Marubium vulgare			1	-	+	+	-	+	-	-
vinegar weed	Tricostema lanceolatum			-	-	+	-	+	-	-	-
white sage	Salvia apiana	1		-	-	+	+	-		-	-
chia	Salvia columbariae	-	-	-	-	-	+	-	-	-	
olack sage	Salvia mellifera	+ +	_	-	-	+	+	+	_		
OASACEAE	Carra momora	+		/		-	-				
andpaper plant	Petalonyx linearis	-		-	-	-					
andpaper plant	Petalonyx thurberi	-		-							
YTHRACEAE	r-staionyx thurben		_								
rass poly	1.4. 1			_							
YRTACEAE	Lythrum hyssopifolium										
ucalyptus						/	/				
	Eucalyptus		/		/	/			~		
IALVACEAE											
hingma velvet leaf	Abutilon theophrasti										
ush mallow	Malacothamnus fasciculatus										-
kali-mallow	Malva leprosa										
neeseweed	Malva parviflora										
necker-bloom	Sidalcea malvaeflora										
YCTAGINACEAE											
alifornia wishbone plant	Mirabilis californica										-
LEACEAE											
sh	Fraxinus				75-7-1	-					
live	Olea europa		-	-							
NAGRACEAE		-		-							
alifornia sun cup	Camissonia bistorta										
and and	Camissonia campestris										
iry sun-cups	Camissonia claviformis										
niature suncup	Camissonia hirtella										
mature suncup	Camissonia micrantha										

willow-herb	Epilobium ciliatum					T	T	1					7
California evening primrose	Oenothera californica					1	+		_	-	-	-	-
common evening primrose	Oenothera elata					-		-	-	-	-	-	-
Primrose	Oenothera deltoides?		_				+	+	-		-	-	-
PAPAVERACEAE					_	+	-	_	-	-	-	-	-
California poppy	Eschscholzia californica						+	-	-	-	-	+-	-
PINACEAE			1	-			-	-		-	-	-	+
Pine	Pinus		4				+	-	/	-	-	+	-
PLANTAGINACEAE			_		-	+ '	-	-	+	-	-	-	-
California plantain	Plantago erecta					1	+	-	+	-	_	+-	-
English plantain	Plantago lanceolata						-		+	_	-	+	-
PLATANACEAE							-	_	-	-	-	+	+
western sycamore	Platanus racemosa		_				1		-	-	-	-	+
POLEMONIACEAE							1	+	+	-	-	+-	-
white eriastrum	Eriastrum densifolium								-	-	-	+-	+
Spineflower	Eriastrum sapphirinum				_	1		_	_	-	-	+-	-
holly-leaved skunkweed	Navarretia atractyloides					1	1		-	+	-	+	+
hooked skunkweed	Navarretia hamata								+	+-	-	+	+
Gilia	Gilia sp.						1	-	-	+	-	+-	-
POLYGONACEAE								_	_	_	-	+	+-
Spineflower	Chorizanthe		\top				1	_	_	_	-	-	+-
	Eriogonum inflatum		_			_		-	-	+	-	-	+
slender buchwheat	Eriogonum gracile	1		1		1	1	-	-	+	+-	+	-
Cal buckwheat	Eriogonum fasciculatum L					1			/	-	-	-	-
Thrubers buckwheat	Eriogonum thruberi	-				-		-	+	+		-	+
common knotweed	Polygonum arenastrum								-	+-	_	-	-
curly dock	Rumex crispus			_				_	-	-	-	-	+
California dock	Rumex salicifolius								+	-	-	+	+-
PORTULACACEAE								+	1	-	-	-	+
red maids	Calandrinia ciliata							_	1	-	1	+	+
miner's lettuce	Claytonia perfoliata								+	_		1	1
fleshy spurg	Portulaca oleracea								+		_	+	+
PRIMULACEAE									1		+	-	+
scarlet pimpernel	Anagallis arvensis										+	-	-
RHAMNACEAE								+	1	+	+	+	-
hick-leaf wild-lilac	Ceanothus crasifolius								1	-	_	+	-
ouck bush	Ceanothus cuneatus												_
chaparral whitethorn	Ceanothus leucodermis								1	+			
nolly-leaved redberry	Rhamnus ilicifolia										+	_	
California coffee berry	Rhamnus californica											-	+
Spiny redberry	Rhamnus crocea												
ROSACEAE													1
diff-rose	Purshia mexicana												
hamise	Adenostoma fasciculatum												
	Adenostoma sparsifolium												
BALICACEAE													
ottonwood	Populus femontii												
oplar	Populus sp.												1
Black willow	Salix gooddingii												
	Salix lasiolepis										-		
	Salix exigua				1								
CROPHULARIACEAE					1								
oastal paintbrush	Castilleja affinis												
urple owl's clover	Castilleja exserta												
	Antimhinum coulterianum		-		-					-			

southern Chinise houses											
dark-tipped bird's beak	Cordylanthus rigidus										
yellow bush-penstemon	Keckiella antimhinoides										
heart-leaved bush-penste											
bush monkey flower	Mimulus aurantiacus										
seep monkey flower	Mimulus guttatus									_	
California figwort	Scrophularia californica										
SIMAROUBACEAE											
tree of heaven	Ailanthus altissima						L		-		
SIMMONDSIACEAE									-		- 2
Jojoba	Simmondsia chinensis										
SOLANACEAE											
small firs Jimson	Datura stramonium								_		
Jimson weed	Datura wrightii	//									_
Nightshade	Solanum duglasi										-
chaparral nightshade	Solanum xanti										
Wallace's Tobacco	Nicotiana bigelovii								-	_	-
tree tobacco	Nicotiana glouca	-			1	1					1
tomato	Lycopersicon esculentum										-
TAMARICACEAE								1			-
Mediterranean tamarisk	Tamarix ramosissima	/									
THEMIDACEAE									-		
olue-dicks	Dichelostemma pulchellum							-			
URTICACEAE											
Fig	Ficus			1				-	_		
/IOLACEAE								-	_	-	-
rellow Johnny Jump-ups	Viola pedunculata							+	-	-	
/ITACEAE								-	-		-
Grape	Vitis vinifera	_		_				+	-	-	
YGOPHYLLACEAE											-
creosote bush	Larrea tridentata									_	
uncture vine	Tribulus terrestris	/						-	_	_	 ,
OACEAE						-			-	-	
ear Lolium	Agropyron sp.										
Giant cane	Arundo donax								_		
lender oat	Avena barbata				-		-				
ild oats	Avena fatua				-				_	-	
urple false=brome	Brachypodium distachyon				-	-			_	-	
escue grassx	Bromus catharticus	,			/	-	_		_		
ogut	Bromus diandrus	/	_	/		-	_		-	/	
rome	Bromus hordiaceus	1	_		-	-	/		-		
extail chess/red brome	Bromus madritensis	/			1				-	/	
ermuda grass	Cynodon dactylon	-		-	-	-	1		L		-
alt grass	Distichlis spicata				-	-	-			4	-
ngle-rice	Echinochloa colona			-							
editerranean barley	Hordeum murinum		-				-				
ommon Barley	Hordeum vulgare	-				-	-				
Identop	Lamarckia aurea					_	-			~	
	Leptochioa sp.		-	-			-				
regrass	Lolium multiflorum	-	-								
leseed canary grass	Phalaris minor			-							
radox canary grass	Phalaris paradoxa	-	-								
animi y grood	Polypogon aviculare		-								
oits foot grass	Polypogon monspeliensis	/	-								
Tool groot	r orypogori monspellensis	//					-			1.,	

foothill stipa	Stipa lepida				
purple stipa	Stipa pulcra				
foxtail fescue	Vulpia myuros				
TYPHACEAE					
cat-tail	Typha				

Singum

Appendix E: Notification Letters to the U. S. Fish and Wildlife Service

Ken H. Osborne 6675 Avenue Juan Diaz, Riverside, CA 92509 (951) 360-6461 Euproserpinus@msn.com

July 6, 2006

Attn: Mr. Daniel Marquez, USFWS Carlsbad Field Office 6010 Hidden Valley Road Carlsbad, CA 92009 Facsimile (760) 431-9624

RE: Notification for survey of Delhi Sands Flower-loving fly for the Southern California Edison, Riverside Reliability Project.

To Whom It May Concern:

I write again to notify you of intent to conduct adult surveys for Delhi Sands Flower-loving fly (DSF, Rhaphiomidas terminatus abdminalis) on an additional large series of sites for this year 2006 season. All surveys commenced on the week of July 1. The surveys are being undertaken for Essex Environmental, 1903 Wright Place, Suite 190, Carlsbad, CA 92008, phone (760) 603-1740. The request from my client to undertake this survey – a proposed Southern California Edison, Riverside Reliability Project, running for many miles across San Bernardino and Riverside Counties - came only a couple of days before the DSF season, and consequently, due to the large size, linear and fragmented nature, many initial questions regarding acreages involved with various components of this survey, ongoing preparation of contracts and logistics of last minute scrambling of a team of biologists to cover this first week, my notification is coming to you only now.

The survey sites were identified wherever any proposed length of the project intersected appropriate habitat or soil types. A buffer zone is added. For the purposes of scheduling surveys and determining appropriate survey durations for each habitat patch within the survey, survey areas have been numbered and acreages calculated. These acreages are presented in a table (below) and the numbered survey areas presented on associated maps. Overall, the extent of acreage on this project may be as high as 210 acres. Survey areas extend from just north of the Agua Mansa Cemetery on Agua Mansa Road and south along the Santa Ana River through Riverside. Habitat is again acquired along Van Buren Blvd around Bellegrave and extends along Galena as far east as Wineville Rd. These areas appear on the San Bernardino South, Fontana, Guasti, Riverside West, and Corona, California USGS 7.5' quadrangles.

Aerial photographs with the project and survey areas will be subsequently mailed to you with a hard copy of this letter of notification.

If you have any questions or comments regarding these several surveys, please feel free to contact me.

Respectfully submitted,

Ken H. Osborne

cc: Essex Environmental

List of Areas indicated on maps and associated estimated acreages.

area		approximate acres
	1	12
	2	17
	3	0.5
	4	2
	5	5
	6	10.5
	7	25
	8	12
	9	52
	10	100
	11	3.2
1	12	10
1	13	5

Osborne Biological Consulting 6675 Avenue Juan Diaz Riverside, CA 92509

August 12, 2006

Attn: Daniel Marquez and Eric Porter USFWS Carlsbad Field Office 6010 Hidden Valley Road Carlsbad, CA 92009 Facsimile (760) 918-0638

RE: Delhi Sands Flower-loving fly (DSF, Rhaphiomidas terminatus abdminalis) observations near the Agua Mansa Cemetery, Rialto.

Dear Mr. Marquez:

In accordance with the Interim General Guidelines for the Delhi Sands flower-loving Fly survey, and pursuant to conditions of recovery (survey) 10(a) USFWS Permit TE-837760-6, I write to inform you of an observation of one male Delhi Sands Flower-loving fly (*Rhaphiomidas terminatus abdminalis*) leading to discovery of a female DSF (and subsequent mating) on August 11, 2006. The observations were made during the course of normal survey hours when work was being undertaken on the northern edge of a survey area located in the vicinity of the Agua Mansa Cemetery, Rialto. The observations were made by myself while conducting the DSF survey work.

My initial observation of a cruising male DSF was made at 1150 am. This male was seen at a distance of approximately 20 meters (just outside of our survey area). I followed this cruising male around while it made random flights through vegetation in a searching mode. During approximately 5 minutes, the DSF traveled through an area of some 40 meters by 40 meters (all just outside of my survey area). Finally, the male landed on the top of a dry *Heterotheca* stalk and I observed that it had found a teneral female (1154 am) and quickly manipulated its abdomen to begin copulation. Copulation lasted approximately 3 minutes. The unmolested pair broke up, the male flying two to three meters to the north and the female flying approximately 10 meters to the southeast (ending up approximately 8 meters from the northern fence line of the Agua Mansa Cemetery. My observations lasted to approximately noon. Photographs were taken throughout the observations.

A map showing this location is provided (San Bernardino South, California USGS 7.5' quadrangle at 200%). The coordinates of yesterdays' observation are 34° 02' 34.2" N, 117° 21' 49.8" W.

Respectfully submitted,

Ken H. Osborne

Osborne Biological Consulting 6675 Avenue Juan Diaz Riverside, CA 92509

August 14, 2006

Attn: Daniel Marquez and Eric Porter USFWS Carlsbad Field Office 6010 Hidden Valley Road Carlsbad, CA 92009 Facsimile (760) 431-9624

RE: Delhi Sands Flower-loving fly (DSF, Rhaphiomidas terminatus abdminalis) observations on Agua Mansa Rd., Rialto.

Dear Mr. Marquez:

In accordance with the Interim General Guidelines for the Delhi Sands flower-loving Fly survey, and pursuant to conditions of recovery (survey) 10(a) USFWS Permit TE-837760-6, I write to inform you of observations of approximately two male and one female Delhi Sands Flower-loving flies (*Rhaphiomidas terminatus abdminalis*) made between approximately 1115 hours and 1130 hours on August 14, 2006 (these DSF too active to be photographed). The observations were made during the course of normal survey hours when work was being undertaken on a survey site located north of Agua Mansa Rd. and south of Hall Avenue, Rialto. The observations were made by Mr. Alex Van Dam (listed on the recovery 10(a) Permit of Osborne [indicated above]). This work is being undertaken for Southern California Edison.

A map showing this location is provided (Fontana, California USGS 7.5' quadrangle at 200%). The coordinates of these observations are approximately 34° 01' 42" N, 117° 22' 31" W. It is noted that the DSF observations were made only on the very small fraction of area not recently disked.

Respectfully submitted,

Ken H. Osborne