

Preservation of Documented QCB Sightings in County Subarea Plan

OTAY RANCH VILLAGE 14 AND PLANNING AREAS 16/19 LAND EXCHANGE ALTERNATIVE



## Table 1 STATE LAND EXCHANGE PORTION OF LAND EXCHANGE EIR ALTERNATIVE

	PA 16/19 Exchange to State (Give)	V 14 Exchange from State (Take)	Comments
Total Acres	278 acres	278 acres	
Predominant Habitat:  Chaparral Coastal Sage Scrub (CSS) + CSS (d)	13.3acres (0.1 percent) 222.4 acres (80 percent)	225.0 (80.9 percent) 31.4 (11.3 percent)	The parcel currently owned by the State is not identified as core Quino checkerspot butterfly (QCB) habitat. Eighty one percent of the habitat on the State's current parcel is chaparral, with over half of that chaparral (117.82 acres) being so dense as to be excluded from protocol QCB surveys in 2015. This number was reduced the 34 acres in 2016, although a majority of the previously excluded areas did not support host plants. The property being "given" to the State in the exchange, on the other hand, contains 80 percent CSS – habitat that is considered potentially suitable for QCB use and dispersal.
Acres Excluded from Quino 2014 (Dudek)	26.56 acres (9.6 percent)	51.82 acres (18.6 percent)	The Dudek 2014 survey shows slightly more habitat excluded from QCB surveys in the property being "given" to the State.
2015 (HELIX)	4.50 acres (1.6 percent)	117.82 acres (42.4 percent)	The HELIX 2015 survey found almost half (42 percent) of the entire parcel currently owned by the State to be unsuitable QCB habitat (excluded) per QCB protocol, while 2016 surveys reduced this number to 12 percent, although a majority of the previously excluded areas did
2016 (HELIX)	0 acres (0 percent)	34 acres (12 percent)	not support host plants. In addition, based on 2015 surveys, the State parcel contains approximately 26 times more QCB excluded habitat than the parcel being "given" to the State. Only 2 percent of the parcel being "given" to the State was considered excluded habitat.

	STATE LAND EXCHANGE P	Table 1 (cont.) ORTION OF LAND EXCHANG	E EIR ALTERNATIVE
	PA 16/19 Exchange to State (Give)	V 14 Exchange from State (Take)	Comments
Mapped Host Plant 2014 surveys (Dudek)	15.54 acres	1.76 acres	The 2014 Dudek mapping included several areas of host plants that totaled 15.54 acres in the parcel that will be exchanged to the State.
2015 surveys (HELIX)	<ul> <li>Plantago: 5 Low density point locations (1-100 individuals), 9 Medium density point locations (100-1,000 individuals), 3 High density point locations (1,000-10,000 individuals)</li> <li>Castilleja: 0 points</li> </ul>	<ul> <li>Plantago: 30 Low density point locations (1-100 individuals), 7 Medium density point locations (100-1,000 individuals), 3 High density point locations (1,000-10,000 individuals), and 1 High density patch (1,000-10,000 individuals [totaling 1.54 acre])</li> <li>Castilleja: 28 Low density point locations (1-100 individuals)</li> </ul>	HELIX's 2015 protocol surveys were conducted on the parcel currently owned by the State proposed for development. Host plants were mapped during each week of survey. Due to the excessive costs associated with the new protocol, protocol surveys were limited to development area and not conducted on the property to be "given" to the State. The host plants mapped on the property that is to be "given" to the State were documented during a late-season, non-protocol site visit (April 2015) when conditions had largely deteriorated. Although the host plant data between the "give" and "take" areas is not directly comparable due to the reasons listed above, an adequate comparison can be developed when considering the potential QCB resources described below and the sheer number of CSS areas being given to the state as compared to the chaparral acreage being taken from the state.

	STATE LAND EXCHANGE POR	Table 1 (cont.) RTION OF LAND EXCHANGE	EIR ALTERNATIVE
	PA 16/19 Exchange to State (Give)	V 14 Exchange from State (Take)	Comments
Mapped Host Plant (cont.)	• <i>Plantago</i> : 58 Low density point locations (1-100 individuals), 43 Medium	• <i>Plantago</i> : 68 Low Density point locations (1-100 individuals), 14 Medium	HELIX's 2016 surveys included both the "give" and "take" areas. There are 108 point and patch locations in the "give" area and 100 locations in the "take" area.
2016 surveys (HELIX)	density point locations (100-1,000 individuals), 4 High density point locations (1,000-10,000 individuals), 2 Medium density patches (100-1,000 individuals [totaling 0.08 acre]), and 1 High density patch (1,000-10,000 individuals [totaling 0.1 acre])  • Castilleja: 2 point locations	density point locations (100-1,000 individuals), 1 High density point location (1,000-10,000 individuals), 1 Low density patch (1-100 individuals [totaling 0.02 acre], 12 Medium density patches (100-1,000 individuals [totaling 0.26 acre]), 4 High density patches (1,000-10,000 individuals [totaling 1.08 acres])  • Castilleja: 150 Low density point locations (1-100 individuals), 1 High density point location (1,000-10,000 individuals), and 4 Low density patches (1-100 individuals [totaling 0.02 acre])	There were more patches within the "take" areas as compared to "give" areas, and the total area of the mapped patches within the "take" area (1.36 acres) was higher than the "give" area (0.18 acre).

	STATE LAND EXCHANGE POI	Table 1 (cont.) RTION OF LAND EXCHANGE I	EIR ALTERNATIVE
	PA 16/19 Exchange to State (Give)	V 14 Exchange from State (Take)	Comments
Historical Sightings	1 location	1 location	A historic QCB location occurs in the area within the State's current ownership and was documented by Mooney Jones and Stokes as part of a USFWS-funded post-fire study associated with the 2003 Old Fire. One QCB was observed in 2005 along a ridge top west of
Current Sightings	Two incidental sightings by USFWS in 2017 adjacent to Give areas: area east of Proctor Valley Road in the northern portion of the Land Exchange and area adjacent to the northeastern portion of the Land Exchange.	One incidental sighting by USFWS in 2017 adjacent to Take area west of Proctor Valley Road (same general location as the 2007 Borcher location).	Proctor Valley Road consisting of burned CSS/chamise chaparral; 2 QCB were observed in the same location in 2006; and 1 QCB was observed in the

	STATE LAND EXCHANGE POR	Table 1 (cont.)	EIR ALTERNATIVE
	PA 16/19 Exchange to State (Give)	V 14 Exchange from State (Take)	Comments
General habitat quality, suitability for QCB, and nectaring resources	Areas given to the State are largely CSS habitat. HELIX mapped scattered potential QCB resource areas; however, based on the general habitat quality in the areas to be given to the State, it is anticipated that are smaller QCB resource areas scattered throughout the "give" area similar to the development footprint. Three high patches of <i>Plantago</i> (1,000-10,000 individuals per patch) were observed even though surveys were conducted well past the prime detection period for <i>Plantago</i> in 2015 and 5 were observed in 2016. The areas of potential QCB habitat (i.e. sage scrub and open chaparral) are generally larger than the areas taken from the State and are connected to blocks of other open space, the majority of which are CSS. Although not mapped, nectaring resources are found throughout these areas.	Areas taken from the State are largely chaparral habitats that contain scattered areas of QCB host plants. The majority of the host plants patches are low (<1,000 individuals of <i>Plantago</i> per patch). Four high patches of <i>Plantago</i> (1,000-10,000 individuals per patch) were mapped in one of the areas taken from the preserve. Although not mapped, nectaring resources are found throughout these areas.	The habitat quality in the areas to be "given" and the areas to be "taken" is relatively similar when considering the host plants, nectaring resources, and topography. The main difference is the areas to be taken from the State are largely chaparral and the areas to be given to the State are largely sage scrub. Also the areas to be given to the State are connected to larger blocks of open space habitat that is suitable for QCB. The areas to be given to the State would provide a greater benefit to QCB because of the greater amount of open CSS and their adjacency to larger blocks of suitable QCB habitat, both of which are preferable for preserve design for this species. Therefore, the land in the "give" parcel to the State is considered biologically equal or superior to the land in the exchanged or "take" from the State.

	STATE LAND EXCHANGE PO	Table 1 (cont.) RTION OF LAND EXCHANG	E EIR ALTERNATIVE
	PA 16/19 Exchange to State (Give)	V 14 Exchange from State (Take)	Comments
Critical habitat designation			
2002 Critical Habitat	201.96 acres	277.96 acres	None
2009 Critical Habitat	30.87 acres	276.76 acres	

Table 2 BOUNDARY LINE ADJUSTMENT PORTION OF LAND EXCHANGE EIR ALTERNATIVE			
	Given to Preserve	Taken from Preserve	Comments
Total Acres	311.9 acres	43.6 acres	
Predominant Habitat:  Chaparral Coastal Sage Scrub	68.3 acres (22 percent) 228.1 acres (73 percent)	26.0 (60 percent) 10.6 (24 percent)	Over 7 times more habitat is being given to the preserve as compared to what is being taken. The majority of the habitat taken from the preserve is chaparral habitat and the majority given to the preserve is coastal sage scrub.
Acres Excluded from Quino 2014 (Dudek)	28.02 acres (9 percent)	1.27 acres (3 percent)	Approximately half of the chaparral both taken and given from the preserve was mapped by HELIX as excluded from surveys in 2015. As a percentage of the total acres, nearly twice as much (29 percent) was excluded from the areas
2015 (HELIX)	37.88 acres (12 percent)	12.82 acres (29 percent)	taken from the preserve as compared to those given to the preserve (12 percent). The 2016 surveys reduced these numbers to less than 1 percent for both.
2016 (HELIX)	2.11 acres (0.67 percent)	0.12 acres (0.27 percent)	

	BOUNDARY LINE ADJUSTM	Table 2 (cont.) ENT PORTION OF LAND EX	CHANGE EIR ALTERNATIVE
	Given to Preserve	Taken from Preserve	Comments
Mapped Host Plant 2014 surveys (Dudek)	1.62 acres	0.1 acres	
2015 surveys (HELIX)	<ul> <li>Plantago: 2 Medium density point locations (100-1,000 individuals)</li> <li>Castilleja: 2 Low density point locations</li> </ul>	<ul> <li>Plantago: 13 Low density point locations (1-100 individuals), 4 Medium density point locations (100-1,000 individuals), and 2 Very High density patches (10,000+ individuals [totals 0.38 acre for the 2 patches])</li> <li>Castilleja: 11 Low density point locations</li> </ul>	HELIX's 2015 protocol surveys were conducted on the parcel currently owned by the State proposed for development. Host plants were mapped during each week of survey. Due to the excessive costs associated with the new protocol, protocol surveys were limited to development area and not conducted on the property to be "given" to the State. The host plants mapped on the property to be "given" to the State were, however, documented during a late-season, non-protocol site visit (April 2015) when conditions had largely deteriorated. Although the host plant data between the "give" and "take"
2016 surveys (HELIX)	<ul> <li>Plantago: 23 Low density point locations (1-100 individuals), 11 Medium density point locations (100-1,000 individuals), 3 High density point locations (1,000-10,000 individuals), and 8 High density patches (1,000-10,000 individuals [totals 0.73 acre])</li> <li>Castilleja: 80 Low density point locations (1-100 individuals) and 3 Medium density point locations (100-1,000 individuals)</li> </ul>	<ul> <li>Plantago: 18 Low density point locations (1-100 individuals), 1 Medium density point location (100-1,000 individuals), and 1 High density patch (1,000-10,000 individuals [totals 0.31 acre])</li> <li>Castilleja: 19 Low density point locations (1-100 individuals)</li> </ul>	areas is not directly comparable due to the reasons listed above, an adequate comparison can be developed when considering the potential QCB resources described below and the sheer number of coastal sage scrub acres being given to the state as compared to the chaparral acreage being taken from the state.  HELIX's 2016 surveys included both the "give" and "take" areas. There are 45 Plantago point and patch locations in the "give" area and 20 locations in the "take" area. A total of 0.31 acre of host plants was mapped in the "take" area, and 0.73 acre in the "give" area.

	BOUNDARY LINE ADJUSTM	Table 2 (cont.) ENT PORTION OF LAND EX	XCHANGE EIR ALTERNATIVE
	Given to Preserve	Taken from Preserve	Comments
Historical Sightings	None	1 location by Borcher in 2005-2007 west of Proctor Valley Road	A historic QCB location occurs in the area within the State's current ownership and was documented by Mooney Jones and Stokes as part of a USFWS-funded post-fire study associated with the 2003 Old Fire. One QCB was observed in 2005 along a ridge top west of Proctor Valley Road consisting of burned
Current Sightings	Several incidental sightings by USFWS in 2017 adjacent to Give areas: area east of Proctor Valley Road in the northern portion of the Land Exchange, area adjacent to the northeastern portion of the Land Exchange, and area west of the western portion of Village 14.	One incidental sighting by USFWS in 2017 adjacent to Take area west of Proctor Valley Road (same general location as the 2005-2007 Borcher location)	CSS/chamise chaparral; 2 QCB were observed in the same location in 2006; and 1 QCB was observed in the same location in 2007 (Andrew Borcher, personal communication, September 15, 2015). This area supported scattered host plant patches in 2015 and scattered host plant patches and one larger host plant patch in 2016. This location has always been included within the proposed development footprint – i.e., it was in the original land exchange reviewed by the Agencies. In 2017, the USFWS incidentally sighted 1 location east of Proctor Valley Road within the Land Exchange, 1 location immediately west of Proctor Valley Road in the same general location previously observed by Borcher in 2005-2007 (4 QCB), 1 location west of Village 14 (2 QCB), and 1 location adjacent to the northeastern portion of the Land Exchange (1 QCB).
General habitat quality,	Areas given to the preserve	Scattered QCB resources	The habitat quality in the areas to be given and the areas to be
suitability for QCB, and	are largely coastal sage scrub	have been mapped in these	taken is relatively similar when considering the host plants,
nectaring resources	habitat that contains scattered areas of potential QCB	areas, the majority of which are low patches of Plantago	nectaring resources, and topography. There are no dramatic differences between the areas, with the exception that 7 times
	resource areas. The area of	(<1,000 individuals per	more habitat is being given to the preserve, including
	potential QCB habitat (i.e.	patch). Two high patches of	approximately 21 times more coastal sage scrub, and the
	coastal sage scrub and open chaparral) are generally larger	Plantago were mapped in one of the areas taken from the	locations of the areas to be given are connected to larger blocks of open space habitat that is suitable for QCB. The
	than the areas taken from the	preserve based on 2015	areas to be given to the preserve would provide a greater
	preserve and are connected to	mapping. These areas were	benefit to QCB not only due to the greater number of acres
	blocks of other open space,	mapped as medium patches	being given as compared to those being taken, but

E	BOUNDARY LINE ADJUSTM	Table 2 (cont.) ENT PORTION OF LAND EX	KCHANGE EIR ALTERNATIVE
	Given to Preserve	Taken from Preserve	Comments
	the majority of which are	in 2016. Although not	also as it relates to their locations and being connected to
	coastal sage scrub. Although	mapped, nectaring resources	larger blocks of suitable QCB habitat. Therefore the land
	not mapped, nectaring	are found throughout these	"given" to the preserve is considered biologically equal or
	resources are found	areas.	superior to the land being "taken" from the preserve.
	throughout these areas.		
Critical habitat designation			None
2002 Critical Habitat	291.67 acres	43.56 acres	
2009 Critical Habitat	145.98 acres	43.56 acres	



## Otay Ranch Proctor Valley Village & Preserve

Quino Checkerspot Butterfly Survey Report

June 3, 2015

Prepared for:

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#### Otay Ranch Proctor Valley Village & Preserve Quino Checkerspot Butterfly Survey Report

I certify that the information in this survey report and attached exhibits fully and accurately represent our work:

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#### Otay Ranch Proctor Valley Village & Preserve Quino Checkerspot Butterfly Survey Report

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#### 1.0 INTRODUCTION

This report documents the results of HELIX Environmental Planning, Inc.'s (HELIX's) 2015 Quino checkerspot butterfly (*Euphydryas editha quino*; QCB) survey of the Proctor Valley - Otay Ranch Village 14 Project site. HELIX biologists performed the protocol survey (comprising seven site visits) under HELIX's Threatened/Endangered Species Permit No. TE778195. Consultants (Busby Biological Services, Inc. and Rocks Biological) conducted surveys under their individual permits (please refer to the title page for a complete list of individual permit numbers).

The Project site is located predominantly within the County of San Diego and portions of the City of Chula Vista in southwestern San Diego County, California in an area commonly known as Proctor Valley. It is further located within Sections 17, 18, 19, 20, 25, and 30 of Township 17 South, Range 1 West and 1 East of the U.S. Geological Survey (USGS) 7.5-minute Jamul Mountains quadrangle map (Figure 1). The Project site and associated study area are situated along Proctor Valley Road and are southeast of San Miguel Mountain, north of Upper Otay Reservoir, and west of the Jamul Mountains. The Project site also includes portions of the California Department of Fish and Wildlife Rancho Jamul Ecological Reserve located in Otay Ranch Village 14. Elevations range from approximately 560 to 1,320 feet above mean sea level. Vegetation communities within the study area consist primarily of chamise chaparral, coastal sage scrub, nonnative grassland, and southern mixed chaparral. Eucalyptus woodland and disturbed habitat comprising unpaved roads and trails are also present.

#### 2.0 METHODS

The study area comprises the proposed development footprint, including limits of brush management and potential Proctor Valley Road realignment areas, and totals approximately 778 acres (Figure 2). A QCB habitat assessment of the study area was conducted by HELIX biologist Jasmine Bakker on February 12, 2015. Based on this habitat assessment, approximately 216 acres were excluded from the survey area, largely as dense chamise chaparral or southern mixed chaparral. The 562-acre QCB survey area was divided into smaller areas and distributed amongst the surveyors to ensure 100 percent coverage of the survey area.

Seven weekly protocol surveys were conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) Survey Protocol for Quino Checkerspot Butterfly (2014) by HELIX biologists Jasmine Bakker, Erica Harris, Stacy Nigro, and Sally Trnka, and consultants Busby Biological Services, Inc. and Rocks Biological (Appendix A). HELIX biologists Tara Baxter, Laura Moreton, and Ben Rosenbaum participated as supervised individuals. Surveys began on February 17, 2015 and continued through April 2, 2015. The first QCB in Riverside County was reported at Oak Mountain by Adam Malisch on February 26, 2015 (Quino Biologists United 2015). The first QCB in San Diego County was reported at Marron Valley by Alison Anderson on March 12, 2015; however, additional sightings of QCB within San Diego County were limited. The seventh and last survey was conducted the week of March 30; however, the seventh survey was not completed for the entire survey area because surveys were discontinued due to host and nectar resources conditions and limited QCB sightings in San Diego County (see additional details in Section 3.0).

Surveys consisted of walking through appropriate habitat and identifying all butterflies observed by sight and with the aid of binoculars. Larval host plants were mapped with the aid of hand-held Global Positioning System (GPS) units (Figure 3), and potential nectar plant species were documented. Surveys covered between 5 and 10 acres per hour, with the exception of the first survey conducted on February 20 due to limited protocol weather conditions.

Identification of butterflies was based on personal knowledge, museum specimens, the San Diego Natural History Museum website, and field guides by Shiraiwa (2009) and Glassberg (2001). Other nomenclature for this report is taken from Holland (1986) and Oberbauer (2008) for vegetation communities and Baldwin et al. (2012) for plants.

#### 3.0 RESULTS

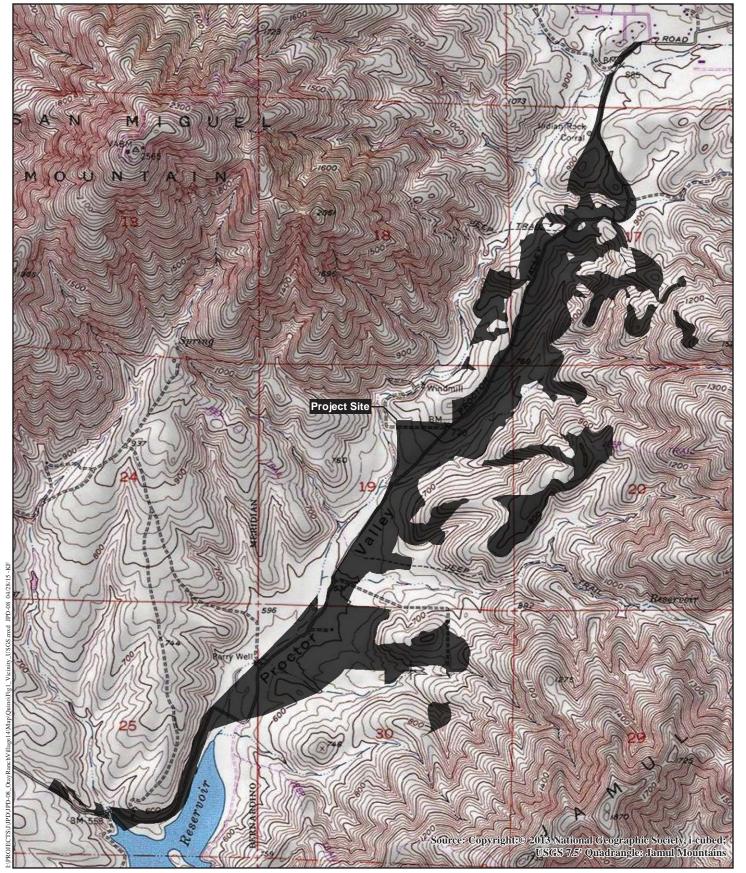
No QCB or QCB larvae were detected within the survey area during the 2015 protocol surveys.

Surveyors observed a total of 3,849 butterfly individuals representing at least 32 butterfly species during the seven surveys. The most common butterflies observed were Behr's metalmark (*Apodemia mormo virgulti*), funereal duskwing (*Erynnis funeralis*), southern blue (*Glaucopsyche lygdamus australis*), ladies (*Vanessa* spp.), and Sarah's orangetip (*Anthocharis sara sara*).

Two larval host plant species were observed within the survey area: dwarf plantain (*Plantago erecta*) and purple owl's clover (*Castilleja exserta*). Parish's owl's clover (*Castilleja densiflora*), a potential host plant species similar to purple owl's clover, was more commonly observed in small patches throughout the survey area than purple owl's clover. Dwarf plantain was mapped in patches of low density (1 - 100 plants), medium density (100 – 1,000 plants), and high density (1,000 – 10,000 plants); the owl's clover were mapped in low density patches (Figure 3). High density patches of dwarf plantain were mapped as polygons if they were in areas larger than approximately 250 square feet, and a few of those were reported to have greater than 10,000 plants. Host plants were in good condition during the first 6 weeks of surveys and representative of a typical year; however, by the seventh week dwarf plantain numbers decreased and most individuals has senesced.

Seven potential nectar sources known to be utilized by QCB were noted within the survey area: popcorn flower (*Cryptantha* and *Plagiobothrys* spp.), California buckwheat (*Eriogonum fasciculatum*), goldfields (*Lasthenia* spp.), ground pink (*Linanthus dianthiflorus*), goldenstar (*Muilla maritima*), rancher's fiddleneck (*Amsinckia intermedia*), and onion (*Allium* sp.). Other potential nectar sources were documented on survey forms and field notes. California buckwheat was a dominant within coastal sage scrub and was observed flowering throughout the seven surveys. Popcorn flower was present throughout the survey area and onion was common within patches of grassland intermixed with the chaparral communities on the north-facing slopes. Ground pink and goldfields occurred in smaller, isolated patches, and rancher's fiddleneck occurred occasionally along the road and trails.

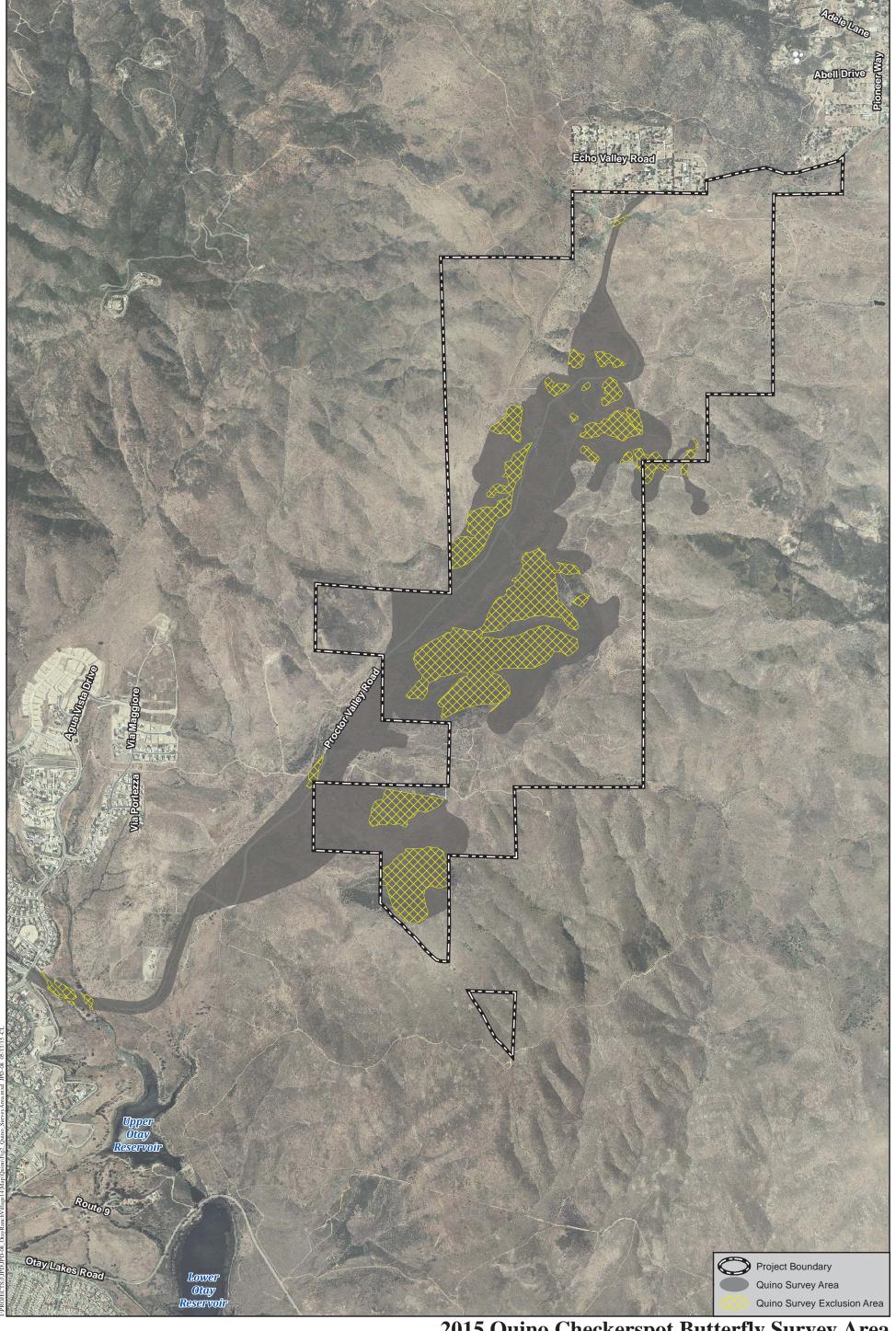
Dominant plant species within the coastal sage scrub were primarily California buckwheat, California sagebrush (*Artemisia californica*), San Diego sunflower (*Bahiopsis laciniata*), laurel sumac (*Malosma laurina*), and deerweed (*Acmispon glaber*). Dominant plant species within the



**Project Vicinity Map** 

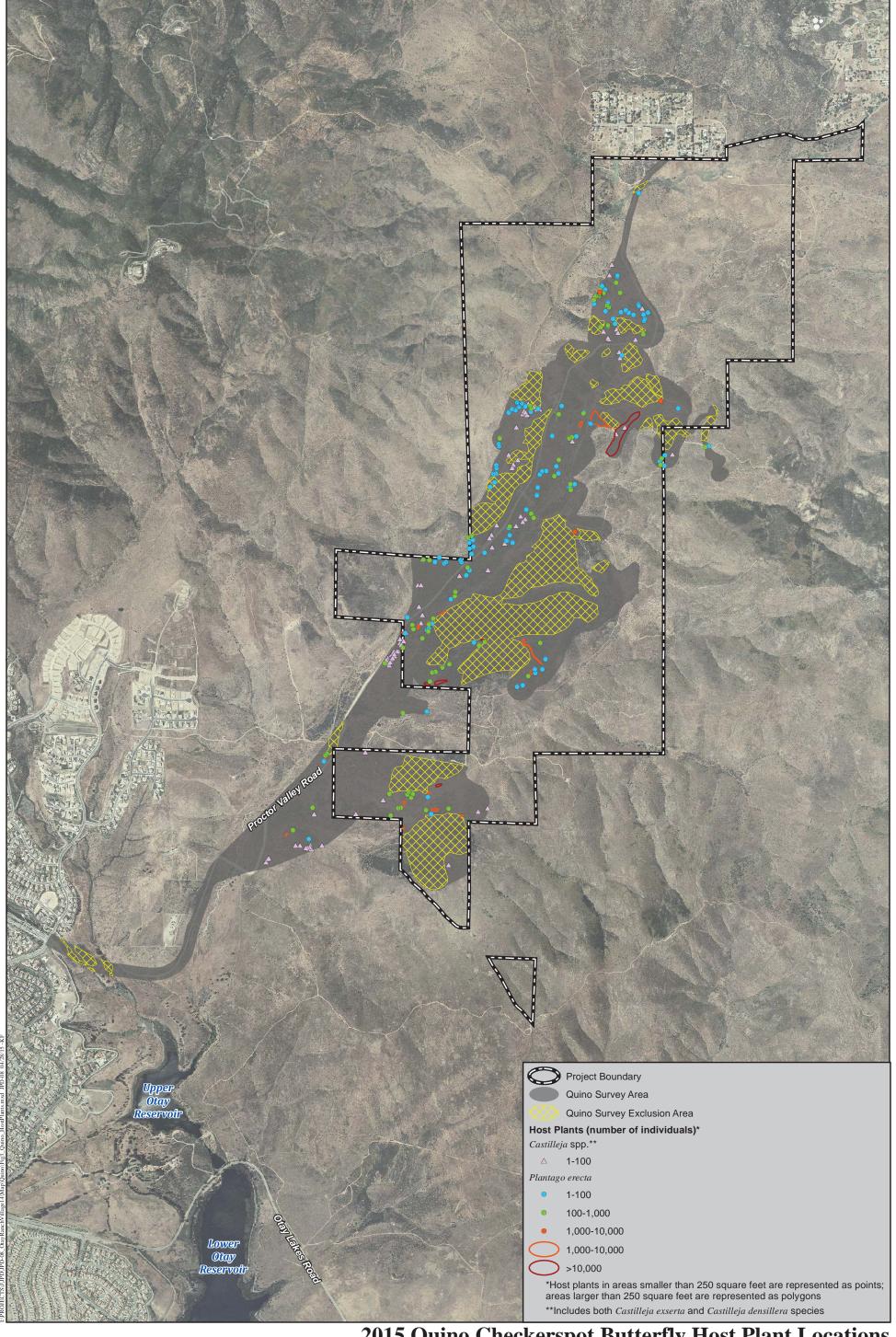
OTAY RANCH PROCTOR VALLEY VILLAGE & PRESERVE





2015 Quino Checkerspot Butterfly Survey Area

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**2015** Quino Checkerspot Butterfly Host Plant Locations

OTAY RANCH PROCTOR VALLEY VILLAGE & PRESERVE



chamise chaparral and southern mixed chaparral were primarily chamise (*Adenostoma fasciculatum*), Ramona lilac (*Ceanothus tomentosus*), and mission manzanita (*Xylococcus bicolor*). Munz's sage (*Salvia munzii*) also occured in patches throughout the survey area.

Surveys were discontinued during the seventh week due to a combination of factors: host plant and nectar resources within the survey area had deteriorated to a condition that was determined by HELIX permitted biologists to not be suitable conditions; and an extremely limited number of QCB sightings in coastal San Diego County, including in areas known to support QCB. HELIX had several communications with USFWS staff (i.e., Susan Wynn and Alison Anderson) to confirm the extremely limited QCB sightings in San Diego County, prior to making a decision to stop the weekly surveys. The only reported sightings in coastal San Diego County were two sightings in Marron Valley (March 12 and March 20) and one sighting in east Otay Mesa on March 20 (Quino Biologists United 2015).

Despite the limited QCB sightings within San Diego County in 2015, this survey season was a good habitat year across the region and the 2015 QCB resource mapping for the Otay Ranch Village 14 survey area likely is representative of QCB resources on site.

#### 4.0 REFERENCES

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# Appendix A SURVEY INFORMATION

## Appendix A SURVEY INFORMATION

	Survey 1										
DATE	BIOLOGIST	ACRES	AC/HR	TIME* (start/	WEATHER	RESULTS†					
				end)	Start	End					
February	Jasmine Bakker^	45	13.5	1220/1540	Hazy, 73°F, wind 2-3 mph	Hazy, 68°F, wind 3-9 mph	No QCB Observed				
20, 2015	Erica Harris^	40	12.6	1230/1540	Hazy, 73°F, wind 0-1 mph	Overcast, 68°F, wind 3-9 mph					
	J. Rocks *				0% clouds, 61°F,						
February	Melanie Rocks*			1005/1530	wind 1-3 mph	0% clouds, 73°F,	No QCB Observed				
17, 2015	Brian Lohstroh*	127	6.22	1120/1530	0% clouds, 68°F, wind 0-3 mph	wind 3-5 mph					
February 19, 2015	J.Rocks*			1000/1525	50% clouds, 64°F, wind 1-2 mph	80% clouds, 74°F, wind 1-6 mph	No QCB Observed				
February 18, 2015	Laurie Gorman <sup>β</sup> , Victor Novick <sup>β</sup> , Travis Cooper <sup>β</sup>	120	5	0820/1600	3% clouds, 61.4°F, wind 0-2 mph	100% clouds, 74.8°F, wind 0-3 mph	No QCB Observed				
February 19, 2015	Darin Busby <sup>β</sup>	30	10	1240/1530	Light haze, 75°F, wind 1-5 mph	Light haze, 74°F, wind 1-3 mph	No QCB Observed				
February 20, 2015	Laurie Gorman <sup>β</sup> , Travis Cooper <sup>β</sup>	91	7.58	0945/1545	10% clouds, 71.5°F, wind 0-2 mph	50% clouds, 70.8°F, wind 1-6 mph	No QCB Observed				
February 21, 2015	Travis Cooper $^{\beta}$ , Victor Novick $^{\beta}$ , Brian Lohstroh $^{\beta}$	110	7.3	1000/1500	90% clouds, 70°F, wind 3-5 mph	50% hazy, 70°F, wind 5-7 mph	No QCB Observed				

<sup>^</sup>Signifies HELIX biologist \*Signifies Busby biologist \*Signifies Rocks biologist

	Survey 2									
DATE	BIOLOGIST	ACRES	AC/HR	TIME* (start/		CONDITIONS	RESULTS†			
				end)	Start	End				
February	Jasmine Bakker^	40	9.4	1000/1415	0% clouds, 63°F, wind 1-3 mph	0% clouds, 76°F, wind 3-7 mph	No QCB			
25, 2015	Stacy Nigro^	45	9.8	0945/1420	0% clouds, 64°F, wind 2-5 mph	5% clouds, 76°F, wind 3-7 mph	Observed			
	J.Rocks*				10% clouds, 60°F, wind 1-4 mph	10% clouds, 70.5°F, wind 1-5 mph				
February 26, 2015	Melanie Dicus*	127	6.27	0915/1600	5% clouds, 60°F, wind 1-3 mph	10% clouds, 70.5°F, wind 1-5 mph	No QCB Observed			
	Garrett Huffman≠				10% clouds, 60°F, wind 1-3 mph	10% clouds, 70.5°F, wind 1-5 mph				
February 24, 2015	Alicia Hill <sup>β</sup> , Laurie Gorman <sup>β</sup> ,	93	8.45	1040/1615	2% clouds, 66.2°F, wind 5-10 mph	2% clouds, 71.6°F, wind 0.5-7 mph	No QCB Observed			
February 25, 2015	Alicia Hill <sup>β</sup> , Laurie Gorman <sup>β</sup> , Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup>	137	5.37	0800/1500	3% clouds, 62.1°F, wind 0-1 mph	3% clouds, 76.0°F, wind 3-8 mph	No QCB Observed			
February 26, 2015	Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup>	89	6.59	0900/1545	30% clouds, 62°F, wind 1-3 mph	5% clouds, 72°F, wind 5-8 mph	No QCB Observed			
February 26, 2015	Laurie Gorman <sup>β</sup>	30	9.23	1245/1600	60% clouds, 78.2°F, wind 1-5 mph	10% clouds, 70.6°F, wind 1-4 mph	No QCB Observed			

<sup>^</sup>Signifies HELIX biologist \*Signifies Busby biologist \*Signifies Rocks biologist

	Survey 3									
DATE	BIOLOGIST	ACRES	AC/HR	TIME* (start/	WEATHER CONDITIONS RES					
				end)	Start	End				
	Jasmine	40	10	0930/1330	0% clouds, 65°F,	0% clouds, 76°F,				
March 5,	Bakker^		10	0,000,1000	wind 1-3 mph	wind 2-7 mph	No QCB			
2015	Erica Harris^	45	11.25	0930/1330	0% clouds, 65°F,	0% clouds, 76°F,	Observed			
	Effect Hairis	73	11.23	0730/1330	wind 1-3 mph	wind 2-7 mph				
	J.Rocks*			0850/1510	0% clouds, 62°F,	0% clouds, 79°F,				
	J. NOCKS?			0630/1310	wind 0-2 mph	wind 2-7 mph           62°F,         0% clouds, 79°F,           ph         wind 0-4 mph           62°F,         0% clouds, 76°F,           ph         wind 0-2 mph           62°F,         0% clouds, 76°F,				
March 5,	Melanie Dicus*	127	6.43	0850/1530 0850/1510	0% clouds, 62°F,	0% clouds, 76°F,	No QCB			
2015					wind 2-4 mph	wind 0-2 mph	Observed			
	Garrett				0% clouds, 62°F,	0% clouds, 76°F,				
	Huffman*				wind 2-4 mph	wind 0-2 mph				
March 5,	Alicia Hill <sup>β</sup> ,				00% alouda 62°E	0% alouds 77°E	No OCP			
· ·	Travis Cooper <sup>β</sup> ,	145	6.9	0830/1530	0% clouds, 63°F,	0% clouds, 77°F,	No QCB Observed			
2015	Victor Novick <sup>β</sup>				wind 0-2 mph	wind 0-3 mph	Observed			
Manah 6	Alicia Hill <sup>β</sup> ,				00/ alouda 62°E	00/ alanda 92°E	No OCB			
March 6, 2015	Travis Cooper <sup>β</sup> ,	111	6.2	0815/1415	0% clouds, 63°F,	0% clouds, 82°F,	No QCB			
	Victor Novick <sup>β</sup>				wind 0-3 mph	wind 1-5 mph	Observed			
March 7,	Travis Cooper <sup>β</sup> ,	02	7.75	0745/1245	0% clouds, 61°F,	0% clouds, 86°F,	No QCB			
2015	Victor Novick <sup>β</sup> ,	93	7.75	0745/1345	wind 0-1 mph	wind 1-5 mph	Observed			

<sup>^</sup>Signifies HELIX biologist \*Signifies Busby biologist Bignifies Rocks biologist

	Survey 4									
DATE	BIOLOGIST	ACRES	AC/HR	TIME* (start/	WEAT	HER CONDITIONS	RESULTS†			
				end)	Start	End				
March 9,	Jasmine Bakker^	45	9.47	1015/1500	0% clouds, 63°F, wind 0-2 mph	10% clouds, 71°F, wind 2-6 mph	No QCB			
2015	Stacy Nigro^	40	9.8	1045/1445	5% clouds, 65°F, wind 2-5 mph	5% clouds, 71°F, wind 2-6 mph	Observed			
	Melanie Rocks*	127		0920/1615	0% clouds, 61°F, wind 1-2 mph	0% clouds, 77°F, wind 1-2 mph				
March 9, 2015	Melanie Dicus*		6.05	0915/1615	0% clouds, 60.6°F, wind 1-2 mph	0% clouds, 78°F, wind 1-2 mph	No QCB Observed			
	Garrett Huffman*			0920/1615	0% clouds, 61°F, wind 1-2 mph	0% clouds, 78°F, wind 1-2 mph				
March 11, 2015	Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup>	81	6.75	1040/1640	80% clouds, 72°F, wind 1-2 mph	80% clouds, 76°F, wind 1-3 mph	No QCB Observed			
March 12, 2015	Alicia Hill <sup>β</sup> , Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup>	123	6.8	0830/1430	0% clouds, 63°F, wind 0-1 mph	0% clouds, 85°F, wind 3-5 mph	No QCB Observed			
March 13, 2015	Alicia Hill <sup>β</sup> , Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup> , Brian Lohstroh <sup>β</sup>	145	6.04	0800/1400	0% clouds, 62°F, wind 0-2 mph	0% clouds, 91°F, wind 4-7 mph	No QCB Observed			

<sup>^</sup>Signifies HELIX biologist \*Signifies Busby biologist Bignifies Rocks biologist

	Survey 5										
DATE	BIOLOGIST	ACRES	AC/HR	TIME* (start/ end)	WEATHER CONDITIONS Start End		RESULTS†				
March 18, 2015	Jasmine Bakker^ Sally Trnka^	85	10	1125/1540	20% clouds, 69°F, wind 0-4 mph	60% clouds, 70°F, wind 3-7 mph	No QCB Observed				
	Melanie Rocks*	127		0930/1500	55% clouds, 76°F, wind 1-3 mph	30% clouds, 88°F, wind 2-7 mph					
March 16, 2015	Melanie Dicus*		6.86	0830/1500	30% clouds, 78°F, wind 3-8 mph	30% clouds, 88°F, wind 2-7 mph	No QCB Observed				
	Garrett Huffman*			0830/1500	30% clouds, 78°F, wind 3-8 mph	30% clouds, 85°F, wind 2-7 mph					
March 19, 2015	Alicia Hill <sup>β</sup> , Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup>	133	7.4	0930/1530	10% clouds, 65°F, wind 0-2 mph	10% clouds, 82°F, wind 3-6 mph	No QCB Observed				
March 20, 2015	Alicia Hill <sup>β</sup> , Travis Cooper <sup>β</sup> , Laurie Gorman <sup>β</sup> ,	112	6.2	0900/1500	1% clouds, 66.1°F, wind 0-1 mph	1% clouds, 85°F, wind 3-5 mph	No QCB Observed				
	Victor Novick <sup>β</sup>	45	7.5	1030/1630	0% clouds, 73°F, wind 0-2 mph	5% clouds, 78°F, wind 0-3 mph	No QCB Observed				
March 21,	Travis Cooper <sup>β</sup> ,	74	6.2	0815/1415	45% clouds, 62°F, wind 1-3 mph	0% clouds, 79°F, wind 2-5 mph	No QCB				
2015	Victor Novick <sup>β</sup> ,				45% clouds, 62°F, wind 0-3 mph	0% clouds, 74°F, wind 0-5 mph	Observed				

<sup>^</sup>Signifies HELIX biologist \*Signifies Busby biologist βSignifies Rocks biologist

	Survey 6										
DATE	BIOLOGIST ACRES AC/HR (start/		WEATH	ER CONDITIONS	RESULTS†						
				end)	Start	End					
March 23, 2015	Jasmine Bakker^ Sally Trnka^	85	10	1015/1430	0% clouds, 67°F, wind 0-3 mph	20% clouds, 74°F, wind 3-8 mph	No QCB Observed				
	Garrett Huffman*		8.2	0845/1530	0% clouds, 62°F, wind 1-3 mph	0% clouds, 72°F, wind 2-6 mph					
March 23, 2015	Melanie Dicus*	127		0845/1530	1% clouds, 62°F, wind 0-3 mph	1% clouds, 72°F, wind 2-6 mph	No QCB Observed				
	Lee Ripma*			0855/1345	1% clouds, 62°F, wind 1-3 mph	60% clouds, 75°F, wind 2-5 mph					
March 24, 2015	Brian Lohstroh <sup>β</sup> , Laurie Gorman <sup>β</sup>	52	7.43	1200/1500	2% clouds, 78°F, wind 4-9 mph	1% clouds, 85°F, wind 5-9 mph	No QCB Observed				
2013	Travis Cooper <sup>β</sup> ,	49	7.5	0830/1500	5% clouds, 61°F, wind 1-3 mph	1% clouds, 85°F, wind 5-9 mph	No QCB Observed				
March 26, 2015	Alicia Hill <sup>β</sup> , Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup>	139	6.6	0745/1440	0% clouds, 62°F, wind 0-1 mph	0% clouds, 93°F, wind 1-5 mph	No QCB Observed				
March 27, 2015	Alicia Hill <sup>β</sup> , Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup> ,	119	6.6	0730/1330	0% clouds, 60°F, wind 0-1 mph	0% clouds, 93°F, wind 2-7 mph	No QCB Observed				

<sup>^</sup>Signifies HELIX biologist \*Signifies Busby biologist \*Signifies Rocks biologist

	Survey 7									
DATE	BIOLOGIST	ACRES	AC/HR	TIME* (start/	WEATHER CONDITIONS		RESULTS†			
				end)	Start	End				
March 30, 2015	Stacy Nigro^	40	10	1015/1415	0% clouds, 74°F, wind 0-8 mph	0% clouds, 79°F, wind 5-8 mph	No QCB Observed			
March 30, 2015	Melanie Dicus* Garrett Huffman*	60	7.5	0845/1630	0% clouds, 61°F, wind 0-2 mph	0% clouds, 79°F, wind 2-6 mph	No QCB Observed			
April 1, 2015	Brian Lohstroh <sup>β</sup> , Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup>	97	5.9	0900/1430	20% clouds, 67°F, wind 1-4 mph	0% clouds, 82°F, wind 2-7 mph	No QCB Observed			
April 2, 2015	Alicia Hill <sup>β</sup> , Travis Cooper <sup>β</sup> , Victor Novick <sup>β</sup>	48	8	0830/1030	45% clouds, 62°F, wind 2-5 mph	20% clouds, 69°F, wind 2-6 mph	No QCB Observed			

<sup>^</sup>Signifies HELIX biologist \*Signifies Busby biologist \*Signifies Rocks biologist

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## Appendix B

### SURVEY FORMS AND FIELD NOTES

2015 Quino Checkerspot Butterfly Survey Form Surveyor Site Name: Proctor Valley - Village 14 of Otay Ranch

Acres Surveyed 127 (217+2/Survey Time: 20-4 Acres per Hour: 6.22

Other Surveyors Present: 44 2 2 3 2 Other Surveyors Present: M. ROCKS B. Lohstroh **Field Conditions** Time (24 hr) Temperature (°F) Wind Speed (mph) Cloud Cover Start 1005 61 0% End Start End Vegetation Communities Surveyed (inc. dominant spp.) Chamise Chap NNG DCSS, Dist Hab, So Mixed Chap (Chamise, xylococcus, Ceanothus tomentosus **Host Plants** Obs. **Nectar Plants** Obs. dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleja exserta) goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) Munz's Sage (Salvia munzii Bue Dicks (Dicheloskman Cap)
Butterfly Species **Butterfly Species** No. No. Checkerspots Hairstreaks California patch (Chlosyne californica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals Mylitta crescent (Phyciodes mylitta) California sister (Adelpha bredowii californica) Blues Lorquin's admiral (Limenitis lorquini) western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) southern blue (Glaucopsyche lygdamus australis) 11411 painted lady (V. cardui) 11/1 Edward's blue (Hemiargus ceraunus gyas) American (Virginia) lady (V. virginiensis) Acmon blue (Icaricia acmon acmon) unidentified lady (Vanessa sp.) marine blue (Leptotes marina) Swallowtails unidentified blue pale swallowtail (Papilio eurymedon) Whites western tiger swallowtail (P. rutulus) Sara orangetip (Anthocharis sara sara) anise swallowtail (P. zelicaon) desert (Felder's) orangetip (A. cethura) Miscellaneous common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) checkered (common) white (Pontia protodice) mourning cloak (Nymphalis antiopa) spring white (P. sisymbrii) Skippers unidentified white funereal duskywing (Erynnis funeralis) Metalmarks mournful duskywing (Erynnis tristis) Behr's metalmark (Apodemia mormo virgulti) MH fiery skipper (Hylephila phyleus) Wright's metalmark (Calephelis wrighti) white (common) checkered-skipper (Pyrgus albescens) Sulphurs Other orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe)

Column Subtotal

Total

76

Acméla Adefas All Prae Bahlac Solfar Xyl Biz Mal Lau Cal Cil Viò Pel I Cea Tom Sel Cin Esch Cal Lom Das

Column Subtotal

cloudless sulfur (Phoebus sennae marcellina)

unidentified sulphur

2015 Quino Checkerspot Butterfly Survey Form Surveyor ROCKS Site Name: Proctor Valley - Village 14 of Otay Ranch Acres Surveyed Survey Time: Acres per Hour: Other Surveyors Present: **Field Conditions** Time (24 hr) Temperature (°F) Wind Speed (mph) Cloud Cover Start 1005 61 0 2. 1-3 End 1530 0% Start End Vegetation Communities Surveyed (inc. dominant spp.) NN6 DCSS **Host Plants** Obs. **Nectar Plants** Obs. dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleja exserta) goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) **Butterfly Species** No. **Butterfly Species** No. Checkerspots Hairstreaks California patch (Chlosyne californica) great purple hairstreak (Attides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) 111 chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals Mylitta crescent (Phyciodes mylitta) California sister (Adelpha bredowii californica) Blues Lorquin's admiral (Limenitis lorquini) western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) southern blue (Glaucopsyche lygdamus australis) painted lady (V. cardui) Edward's blue (Hemiargus ceraunus gyas) American (Virginia) lady (V. virginiensis) Acmon blue (Icaricia acmon acmon) unidentified lady (Vanessa sp.) HHT marine blue (Leptotes marina) Swallowtails unidentified blue pale swallowtail (Papilio eurymedon) Whites western tiger swallowtail (P. rutulus) Sara orangetip (Anthocharis sara sara) anise swallowtail (P. zelicaon) desert (Felder's) orangetip (A. cethura) Miscellaneous common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) checkered (common) white (Pontia protodice) mourning cloak (Nymphalis antiopa) spring white (P. sisymbrii) Skippers unidentified white funereal duskywing (Erynnis funeralis) Metalmarks mournful duskywing (Erynnis tristis) Behr's metalmark (Apodemia mormo virgulti) fiery skipper (Hylephila phyleus) 111 Wright's metalmark (Calephelis wrighti) white (common) checkered-skipper (Pyrgus albescens) Sulphurs Other orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) unidentified sulphur Column Subtotal Column Subtotal

Total ( ()

Surveyor :	2015 Quino (	checkers	pot Bt	tterfly Survey Form	17/15		
Site Name	e: Proctor Valley - Village 14 of Otay F	Panch		Site Vi	100		
A C	e. Proctor Valley – Village 14 of Otay P	- i)	70-	Site Vis	sit No:		
Acres Su	rveyed Survey	Time:	10-	Acres per Ho	ur: 6.2	2_	
Other Sur	veyors Present: 3. ROULS V	NJ.140CK	5				
	·						
		Field	Conditio	ne			
	Time (24 hr) Tem	perature (°I		Wind Speed (mph)	Cloud Co	WOF	
Start							
End	NOTICE STATE OF THE STATE OF TH	C8'F		3-5 mph	0%	/	
Start	1530	751		5-5 mpor	0/	0	
End							
Vegetation	n Communities Surveyed (inc. domina						
Chap.	NUE DESS, Dist						
cham	ise Isocama, ceanoilist	own Sa	lvia .	nunzii Erigonoin f	4 Amismi	١	
	Host Plants	- 1	1		- I HOLIN STANI		
dwarf plant	tain (Plantago erecta)	Obs.		Nectar Plants		Obs.	
	s clover (Castilleja exserta)	$\rightarrow$		orn flower ( <i>Cryptantha/Plagiobo</i> fields ( <i>Lasthenia</i> spp.)	othrys spp.)	X	
	n (Antirrhinum coulterianum)	X		enstar (Muilla spp.)		1	
	(Cordylanthus rigidus)			eneck (Amsinckia menziesii var.	intermedia)	-	
	itain (Plantago patagonica)			n (Allium spp.)	intermedia)	1×	
Chinese ho	ouses (Collinsia spp.)			wheat (Eriogonum fasciculatum	)		
			grou	nd pink (Linanthus dianthiflorus)		V	
			See	add 1 Nectal Sou	res opposite	Days	
	Butterfly Species	No.	_	Butterfly Species	1.	No.	
Checkersp			Hairs	treaks		140.	
	atch (Chlosyne californica)	Sec. 15.	great	ourple hairstreak (Atlides halesu	us corcorani)		
	ckerspot (C. gabbii)		brown				
chalcodon o	kerspot (Euphydryas editha quino)		bramb	1()			
	heckerspot (E. chalcedona chalcedona) ckerspot (Thessalia leanira wrighti)		gray h	1			
	cent (Phyciodes mylitta)		_	s/Admirals			
Blues	is the first of the second sec			nia sister (Adelpha bredowii cal n's admiral (Limenitis lorquini)	lifornica)		
western pyg	my-blue (Brephidium exila)	- 57		oast lady (Vanessa annabella)			
western taile	ed blue (Everes amyntula)			miral (V. atalanta rubria)			
southern blu	e (Glaucopsyche lygdamus australis)	1141		d lady (V. cardui)		W	
Edward's blu	ue (Hemiargus ceraunus gyas)	113.2	Americ	can (Virginia) lady (V. virginiensi	is)	III	
	(Icaricia acmon acmon)			tified lady (Vanessa sp.)			
unidentified	(Leptotes marina)			wtails			
Whites	Dido			vallowtail (Papilio eurymedon)	_	1	
Sara orange	tip (Anthocharis sara sara)	1/1		n tiger swallowtail ( <i>P. rutulus</i> ) swallowtail ( <i>P. zelicaon</i> )			
desert (Felde	er's) orangetip (A. cethura)			laneous			
common Cal	ifornia ringlet (Coenonympha californica)	72.	_	ch (Danaus plexippus)			
	te (Pieris rapae)			on buckeye (Junonia coenia gris	sea)		
	common) white (Pontia protodice)			ng cloak (Nymphalis antiopa)			
	(P. sisymbrii)		Skippe				
unidentified v Metalmarks	vnite			Il duskywing (Erynnis funeralis)		61	
	mark (Apodemia mormo virgulti)	Nin		ul duskywing (Erynnis tristis)			
	almark (Calephelis wrighti)	14th		ipper (Hylephila phyleus)			
Sulphurs	(		Other	common) checkered-skipper (Py	rgus albescens)		
	ur (Colias eurytheme)	1					
sleepy orange	e (Eurema nicippe)						
	ur (Phoebus sennae marcellina)						
inidentified s							
	Column Subtota			0	olumn Subtotal		

Total

Site Name	Proctor Valley – Village 14 of Otay veyed Surve	Ranch		Date.	1.111	
Acres Sun	veved 127	TAILUI	2	Sit	e Visit No:	
Other Surv	reyors Present:	y rime: _	0 . 4	Acres pe	r Hour: C .	22
omor oury	cyors Piesent:		-			
		Fiel	d Condition	8		
	Time (24 hr) Ter	nperature		Wind Speed (mph)	Claud	•
Start	1000	64		1 - 2	Cloud	
-End	1230	70		1 0	50% 7	hin
-Start	1525	74	1	1-8	10% Th	in
End		77		1-6	10% Th	thin
Vegetation	Communities Surveyed (inc. domin	ant spp.)				46
Cham ch	ap , DCSS , Disthubitat,	1/1/6				
Dirt Roa	of USF habitat	NING				
FIFT ICOG	:05			The second secon		
	Host Plants	Obs	.	Nectar Plant		
dwarf plantai	n (Plantago erecta)	1		n flower (Cryptantha/Plagi	ohothnie oza \	Obs
purple owl's	clover (Castilleja exserta)	1	goldfield	ds (Lasthenia spp.)	obounys spp.)	1
birds-beak (C	(Antirrhinum coulterianum) Cordylanthus rigidus)		goldens	tar (Muilla spp.)		
woolly planta	in (Plantago patagonica)	-	fiddlene	ck (Amsinckia menziesii v	ar. intermedia)	
Chinese hous	ses (Collinsia spp.)	- 2	onion (A	Allium spp.)		1
	(Commercial Opp.)	-	buckwhe	eat (Eriogonum fasciculati	um)	1
			13/ 12 d	pink (Linanthus dianthiflor	us)	
	Butterfly Casel		Dive o	Butterfly Specie	VCittora 7	1
Checkerspots	Butterfly Species	No.		apooli	es	No.
	h (Chlosyne californica)	1	Hairstrea	A STATE OF		1.0.
Gabb's checke	erspot (C. gabbii)	11	great purp	ole hairstreak (Atlides hale	esus corcorani)	
Quino checker	spot (Euphydryas editha quino)	111	bramble (	n (Callophrys augustinus)		
chalcedon che	ckerspot (E. chalcedona chalcedona)	1	gray hairs	perplexing) hairstreak (C. treak (Strymon melinus p	dumetorum affinis)	111
eanira checke	erspot (Thessalia leanira wrighti)	No	Ladies/Ad	dmirals	udica)	
Blues	t (Phyciodes mylitta)			sister (Adelpha bredowii d	californica)	-
	-blue (Brephidium exila)	3	Lorquin's	admiral (Limenitis lorquini	)	1
estern tailed b	olue (Everes amyntula)		west coas	t lady (Vanessa annabella	a)	
outhern blue (	Glaucopsyche lygdamus australis)	Sugar tu	red admira	al (V. atalanta rubria)		
dward's blue (	Hemiargus ceraunus avas)	MATH!		ty (V. cardui)	100	111
cmon blue (Ica	aricia acmon acmon)		unidentifie	(Virginia) lady ( <i>V. virginier</i> d lady ( <i>Vanessa</i> sp.)	nsis)	
nidentified blue	ptotes marina)		Swallowta			
hites		f f	pale swallo	wtail (Papilio eurymedon)		-
	Anthocharis sara sara)		western tig	er swallowtail (P. rutulus)		
esert (Felder's)	orangetip (A. cethura)	1	anise swall	owtail (P. zelicaon)		
mmon Californ	nia ringlet (Coenonympha californica)		Miscellane			
bbage white (	Pieris rapae)		common by	Danaus plexippus)		
eckered (com	mon) white (Pontia protodice)		mourning of	ickeye (Junonia coenia gr loak (Nymphalis antiopa)	risea)	
ring white (P. sidentified white			Skippers	(путрнана апцора)		
etalmarks	9		funereal du	skywing (Erynnis funeralis	()	1/1
	k (Apodemia mormo virgulti)	W.4.	mournful du	skywing (Erynnis tristis)		1/1
ight's metalma	ark (Calephelis wrighti)	111 1741	fiery skipper	(Hylephila phyleus)		
phurs			white (comn	non) checkered-skipper (F	Pyrgus albescens)	
nge sulphur (C	Colias eurytheme)	1	Other			
epy orange (Et	urema nicippe)					
udless sulfur (F	Phoebus sennae marcellina)					
dentified sulph	ur					
	Column Subtotal				Column Subtotal	
					oubtotal	

Calystegia macro Acmispon glaber Baniofsis Glaciniata Mirabilis Calif. Solanum Parishii Oxalis

Surveyo	1		ckerspo	ot Butterfly Survey Form  Date: 2	-18-15	
Site Nan	ne: Proctor Valley - Village 14 of		•	Site V	isit No:	EGN
		Survey Tim		16	isit reo:	r.G,1
					our: _ >	
Other St	urveyors Present: Victor	NONE	Tra	vis Cooper		
			Field Co	nditions		
	Time (24 hr)	Tempera	ture (°F)	Wind Speed (mph)	Claud Cau	
Start	0820	/ 1 4	i cure (1)		Cloud Cove	er
End	1.7	61.		6-2	37.	
	1600	74.8		0-3	100%	hin
Start						
End						
Vegetati	ion Communities Surveyed (inc.	dominant s	pp.)			
Cha	mise (don. Ceansi	thus +	Donasto	(372		-
	A - A:			iculation)		
U. 144	. 7)00	WY ID	TASC	(cultur)		-
	Host Plants		Obs.	Nectar Plants		Obs.
	antain (Plantago erecta)		X	popcorn flower (Cryptantha/Plagio	bothrys spp.)	4
	wi's clover (Castilleja exserta)			goldfields (Lasthenia spp.)		×
	gon (Antirrhinum coulterianum)	- 10-	-	goldenstar (Muilla spp.)		
	ak (Cordylanthus rigidus)			fiddleneck (Amsinckia menziesii va	ar. intermedia)	
	lantain (Plantago patagonica) houses (Collinsia spp.)	-		onion (Allium spp.)		X
Omnese	Tiouses (Cominsie spp.)			buckwheat (Eriogonum fasciculatu ground pink (Linanthus dianthifforu		V
				ground pink (Emandius diaminiore	15)	_
Chacker	Butterfly Species		No.	Butterfly Specie	s	No.
	alifornia patch (Chlosyne californica)			Hairstreaks		
	checkerspot (C. gabbil)			great purple hairstreak (Attides hate brown elfin (Callophrys augustinus)		
	neckerspot (Euphydryas editha quin	10)		bramble (perplexing) hairstreak (C.		
	on checkerspot (E. chalcedona cha			gray hairstreak (Strymon melinus pudica)		
Leanira d	checkerspot (Thessalia leanira wrig	hti)		Ladies/Admirals		
Mylitta c	rescent (Phyciodes mylitta)			California sister (Adelpha bredowii	californica)	
Blues				Lorquin's admiral (Limenitis lorquin		
	pygmy-blue (Brephidium exila)			west coast lady (Vanessa annabeli	le)	
	tailed blue (Everes amyntula)	411-5		red admiral (V. atalanta rubria)		~
	blue (Glaucopsyche lygdamus aus	stralis)		painted lady (V. cardui)	ne/e)	2
	s blue (Hemiergus ceraunus gyas) blue (Icaricia acmon acmon)			American (Virginia) lady (V. virginie unidentified lady (Vanessa sp.)	risis)	20
	olue (Leptotes marina)			Swallowtails		20
unidentif			15	pale swallowtail (Papilio eurymedor	7)	7.0
Whites				western tiger swallowtail (P. rutulus		
Sara ora	ingetip (Anthocharis sara sara)		10	anise swallowtail (P. zeliceon)		
	Felder's) orangetip (A. cethura)			Miscellaneous		
	California ringlet (Coenonymphe c	alifornica)		monarch (Deneus plexippus)		
	white (Pieris rapae)	,		common buckeye (Junonia coenia		
	ed (common) white (Pontia protodio	(e)	1.1	mourning cloak (Nymphalis antiopa	,	
	hite (P. sisymbrii)			Skippers funereal duskywing (Erynnis funere	lie)	6
unidentil Metalma	fied white		-	mournful duskywing (Erynnis tristis)		
	arks netalmark ( <i>Apodemia mormo virgul</i> i	5)	201	fiery skipper (Hylephile phyleus)		
	metalmark (Celephelis wrighti)			white (common) checkered-skipper	(Pyrgus albescens)	
Sulphur				Other		
	sulphur (Colies eurytheme)			stricted a year		
sleepy o	range (Eurema nicippe)	Control of the Contro		Y	and the second second	2
	s sulfur (Phoebus sennae marcellin	<b>a</b> )				22
unidentif	fied sulphur				Column Subtatel	200
A LA TRACTA	Colum	n Subtotal	93		Column Subtotal	27

53

Column Subtotal

Oxalis sp. Eschscholzia californica Mirabilis lagvis

Solanum sp.

throughdid incare

Lonativa sp

2015 Quino Checkerspot Butterfly Survey Form TRAVIS COUPER Surveyor: F, G, K (North) Site Visit No: Site Name: Proctor Valley - Village 14 of Otay Ranch 7hc 40min Acres per Hour: \_\_\_ 5.16 120 Acres Surveyed Survey Time: Other Surveyors Present: Victor Mulk **Field Conditions** Time (24 hr) Temperature (°F) Wind Speed (mph) Cloud Cover 0820 Start 0-2 61 End 75 1600 Start End Vegetation Communities Surveyed (inc. dominant spp.) Bickenhea Chamise Chapanal (chamise Obs. **Host Plants** Obs. **Nectar Plants** dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleja exserta) goldfields (Lasthenia spp.) X goldenstar (Muilla spp.) snapdragon (Antirrhinum coulterianum) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) buckwheat (Eriogonum fasciculatum) Chinese houses (Collinsia spp.) K ground pink (Linanthus dianthiflorus) **Butterfly Species** No. No. **Butterfly Species** Checkerspots Hairstreaks California patch (Chlosyne californica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) gray hairstreak (Strymon melinus pudica) chalcedon checkerspot (E. chalcedona chalcedona) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals Mylitta crescent (Phyciodes mylitta) California sister (Adelpha bredowii californica) Blues Lorquin's admiral (Limenitis lorquini) western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) 2 southern blue (Glaucopsyche lygdamus australis) painted lady (V. cardui) American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) 20 unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) **Swallowtails** marine blue (Leptotes marina) pale swallowtail (Papilio eurymedon) unidentified blue 15 western tiger swallowtail (P. rutulus) Whites anise swallowtail (P. zelicaon) Sara orangetip (Anthocharis sara sara) 10 Miscellaneous desert (Felder's) orangetip (A. cethura) common California ringlet (Coenonympha californica) monarch (Danaus plexippus) common buckeye (Junonia coenia grisea) cabbage white (Pieris rapae) mourning cloak (Nymphalis antiopa) checkered (common) white (Pontia protodice) spring white (P. sisymbrii) Skippers funereal duskywing (Erynnis funeralis) unidentified white mournful duskywing (Erynnis tristis) Metalmarks fiery skipper (Hylephila phyleus) Behr's metalmark (Apodemia mormo virgulti) white (common) checkered-skipper (Pyrgus albescens) Wright's metalmark (Calephelis wrighti) Other Sulphurs orange sulphur (Colias eurytheme) Stricted Queen

1650

53

Column Subtotal

28

Column Subtotal

sleepy orange (Eurema nicippe)

unidentified sulphur

cloudless sulfur (Phoebus sennae marcellina)

2015 Quino Checkerspot Butterfly Survey Form 1. Novile Site Name: Proctor Valley - Village 14 of Otay Ranch 5 Acres per Hour: 5+ F, 61, K 120 Survey Time: Acres Surveyed Travis cooper, Laurie Gormun Other Surveyors Present: **Field Conditions** Wind Speed (mph) Cloud Cover Time (24 hr) Temperature (°F) 0-7 0820 Start 106% thin. End Start End Vegetation Communities Surveyed (inc. dominant spp.) **Nectar Plants** Ohs Obs. **Host Plants** popcorn flower (Cryptantha/Plagiobothrys spp.) dwarf plantain (Plantago erecta) goldfields (Lasthenia spp.) purple owl's clover (Castilleja exserta) goldenstar (Muilla spp.) snapdragon (Antirrhinum coulterianum) fiddleneck (Amsinckia menziesii var. intermedia) birds-beak (Cordylanthus rigidus) woolly plantain (Plantago patagonica) onion (Allium spp.) buckwheat (Eriogonum fasciculatum) Chinese houses (Collinsia spp.) ground pink (Linanthus dianthiflorus) No. **Butterfly Species** No. **Butterfly Species** Hairstreaks Checkerspots great purple hairstreak (Atlides halesus corcorani) California patch (Chlosyne californica) brown elfin (Callophrys augustinus) Gabb's checkerspot (C. gabbii) bramble (perplexing) hairstreak (C. dumetorum affinis) Quino checkerspot (Euphydryas editha quino) gray hairstreak (Strymon melinus pudica) chalcedon checkerspot (E. chalcedona chalcedona) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals California sister (Adelpha bredowii californica) Mylitta crescent (Phyciodes mylitta) Lorquin's admiral (Limenitis lorquini) Blues west coast lady (Vanessa annabella) western pygmy-blue (Brephidium exila) red admiral (V. atalanta rubria) western tailed blue (Everes amyntula) painted lady (V. cardui) southern blue (Glaucopsyche lygdamus australis) American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) **Swallowtails** marine blue (Leptotes marina) pale swallowtail (Papilio eurymedon) unidentified blue western tiger swallowtail (P. rutulus) Whites anise swallowtail (P. zelicaon) Sara orangetip (Anthocharis sara sara) Miscellaneous desert (Felder's) orangetip (A. cethura) monarch (Danaus plexippus) common California ringlet (Coenonympha californica) common buckeye (Junonia coenia grisea) cabbage white (Pieris rapae) mourning cloak (Nymphalis antiopa) checkered (common) white (Pontia protodice) Skippers spring white (P. sisymbrii) funereal duskywing (Erynnis funeralis) unidentified white mournful duskywing (Erynnis tristis) Metalmarks fiery skipper (Hylephila phyleus) Behr's metalmark (Apodemia mormo virgulti) white (common) checkered-skipper (Pyrgus albescens) Wright's metalmark (Calephelis wrighti) Sulphurs Struted queen orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) unidentified sulphur Column Subtotal Column Subtotal

Total

Surveyor Darm Busby Date: 2/19/15
Site Name: Proctor Valley - Village 14 of Otay Ranch (Map M) Site Visit No: 1

Acres Surveyed 30 acres Survey Time: 3 hrs Acres per Hour: ~ 10 acres / hr.

Field Conditions							
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover			
Start	1240	75 F	1-5 mph	light hazo			
End	1530	74 F	1-3 mph	light haze			
Start							
End							

Other Surveyors Present:

Vegetation Communities Surveyed (inc. dominant spp.)

Coastal Sage Scrub, disturbed areas, bare ground, non-native grassland.

Host Plants	Obs.	Nectar Plants	Obs
dwarf plantain (Plantago erecta)		popcorn flower (Cryptantha/Plagiobothrys spp.)	×
purple owl's clover (Castilleja exserta)		goldfields (Lasthenia spp.)	
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	×
woolly plantain (Plantago patagonica)		onion (Allium spp.)	X
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	×
11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		ground pink (Linanthus dianthiflorus)	×
-No hist plants observed.		,	

Butterfly Species	No.	Butterfly Species	No
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	-
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	
western pygmy-blue (Brephidium exila)	U	west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)		painted lady (V. cardui)	7
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	-
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	1	pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)		monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	111	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)	-	white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	
orange sulphur (Colias eurytheme)		Unidentified meth	1)
sleepy orange (Eurema nicippe)		77	- 1/
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur			
Column Subtotal	6	Column Subtotal	4
	-	Total	in

TSOMER'S, Eredium, ARMISPON, Brassica, Dichlostema, Bassica,

Surveyor: Jasmine Bakke	er	Date: 2/20/2015
Site Name: Proctor Valley	- Village 14 of Otay Ranch (JPD-08); Area A	Site Visit No: 1
Acres Surveyed 45	Survey Time: _ 3 hours 20 min	Acres per Hour: _ 13.5*
Other Surveyors Present:	Erica Harris ~ Area C	
	*Survey completed at faster pace in order to comp	lete survey during suitable weather conditions

	Field Conditions						
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover			
Start	1220	73	2-3	hazy			
End	1540	68	3-9	hazy (mostly cloudy)			
Start							
End							

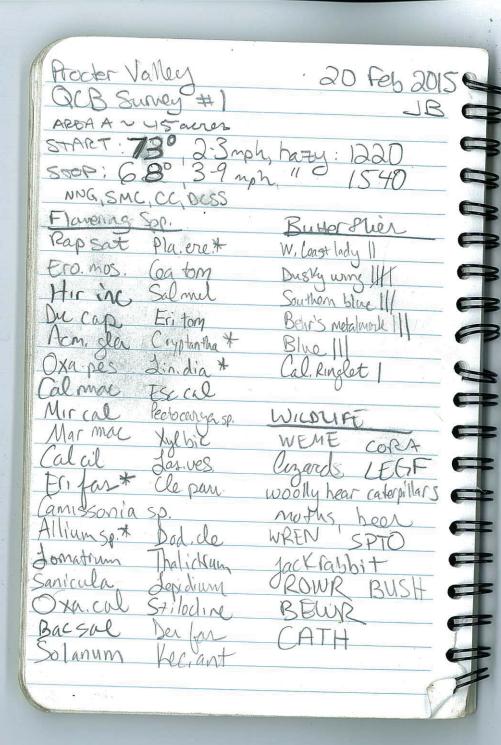
#### **Vegetation Communities Surveyed (inc. dominant spp.)**

NNG (Bromus, Avena), DCSS (Artemisia californica, Eriogonum fasciculatum, Salvia apiana, Acmispon glaber),

SMC (Ceanothus tomentosus, Adenostoma fasciculatum, Xylococcus bicolor, Rhamnus crocea)

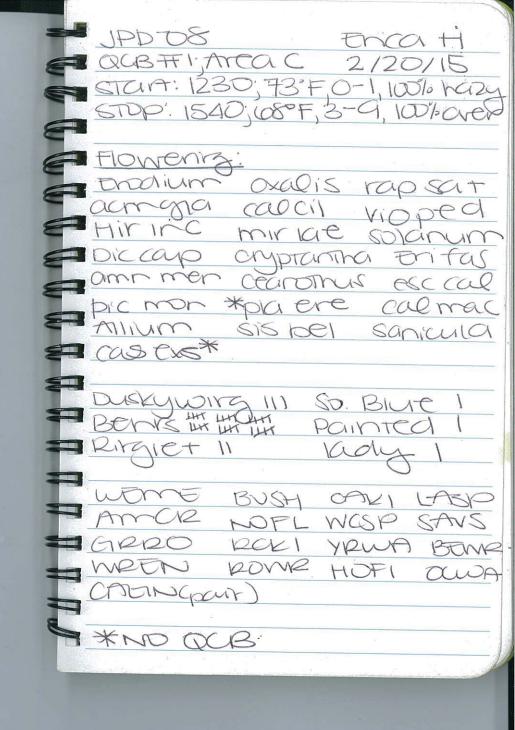
Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X
purple owl's clover (Castilleja exserta)		goldfields (Lasthenia spp.)	
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	
woolly plantain (Plantago patagonica)		onion (Allium spp.)	Х
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	X
		ground pink (Linanthus dianthiflorus)	Х

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis Iorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	2
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)	3	painted lady (V. cardui)	
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	3	pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)	1	monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	5
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	3	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper ( <i>Pyrgus albescens</i> )	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange (Eurema nicippe)			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur			
Column Subtotal	10	Column Subtotal	7
		Total	17



2015 Quino Checkerspot Butterfly Survey Form Surveyor: Erica Harris Site Name: Proctor Valley - Village 14 of Otay Ranch Site Visit No: Acres per Hour: 2 Acres Surveyed Survey Time: Other Surveyors Present: SUSMINE **Field Conditions** Time (24 hr) Temperature (°F) Wind Speed (mph) **Cloud Cover** Start 10 End Start End Vegetation Communities Surveyed (inc. dominant spp.) **Host Plants** Obs. **Nectar Plants** Obs. dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleia exserta) goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) **Butterfly Species** No. **Butterfly Species** No. Checkerspots Hairstreaks California patch (Chlosyne californica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals California sister (Adelpha bredowii californica) Mylitta crescent (Phyciodes mylitta) Blues Lorquin's admiral (Limenitis lorquini) western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) southern blue (Glaucopsyche lygdamus australis) painted lady (V. cardui) Edward's blue (Hemiargus ceraunus gyas) American (Virginia) lady (V. virginiensis) Acmon blue (Icaricia acmon acmon) unidentified lady (Vanessa sp.) marine blue (Leptotes marina) **Swallowtails** unidentified blue pale swallowtail (Papilio eurymedon) Whites western tiger swallowtail (P. rutulus) Sara orangetip (Anthocharis sara sara) anise swallowtail (P. zelicaon) desert (Felder's) orangetip (A. cethura) Miscellaneous common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) checkered (common) white (Pontia protodice) mourning cloak (Nymphalis antiopa) spring white (P. sisymbrii) Skippers unidentified white funereal duskywing (Erynnis funeralis) Metalmarks mournful duskywing (Erynnis tristis) Behr's metalmark (Apodemia mormo virgulti) fiery skipper (Hylephila phyleus) Wright's metalmark (Calephelis wrighti) white (common) checkered-skipper (Pyrgus albescens) Sulphurs Other orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) unidentified sulphur Column Subtotal Column Subtotal

Total



2015 Quino Checkerspot Butterfly Survey Form Date: 2-20-15 aurie Gorman Site Name: Proctor Valley - Village 14 of Otay Ranch Site Visit No: hours Acres per Hour: \_ 7. 58 Survey Time: **Acres Surveyed** Other Surveyors Present: Travis Cooper **Field Conditions** Cloud Cover Time (24 hr) Temperature (°F) Wind Speed (mph) Start 0945 10 End 1545 50 Start End Vegetation Communities Surveyed (inc. dominant spp.) (don = chamise); Coastal sage Scrub (Salvia develandi grassland (don. = Bromus sp. Erodium Obs. **Host Plants** Obs. **Nectar Plants** dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) goldfields (Lasthenia spp.) purple owl's clover (Castilleja exserta) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) recession developedin fiddleneck (Amsinckia menziesii var. intermedia) birds-beak (Cordylanthus rigidus) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) **Butterfly Species** No. **Butterfly Species** No. Checkerspots California patch (Chlosyne californica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals California sister (Adelpha bredowii californica) Mylitta crescent (Phyciodes mylitta) Blues Lorquin's admiral (Limenitis lorquini) athyrus nanthus dianthifterus western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) southern blue (Glaucopsyche lygdamus australis) painted lady (V. cardui) Edward's blue (Hemiargus ceraunus gyas) American (Virginia) lady (V. virginiensis) Acmon blue (Icaricia acmon acmon) unidentified lady (Vanessa sp.) となれる marine blue (Leptotes marina) **Swallowtails** unidentified blue pale swallowtail (Papilio eurymedon) Whites western tiger swallowtail (P. rutulus) anise swallowtail (P. zelicaon) Sara orangetip (Anthocharis sara sara) Miscellaneous desert (Felder's) orangetip (A. cethura) common California ringlet (Coenonympha californica) monarch (Danaus plexippus) var.alefeldii cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) checkered (common) white (Pontia protodice) mourning cloak (Nymphalis antiopa) spring white (P. sisymbrii) Skippers unidentified white funereal duskywing (Erynnis funeralis) mournful duskywing (Erynnis tristis) Metalmarks Behr's metalmark (Apodemia mormo virgulti) fiery skipper (Hylephila phyleus) Wright's metalmark (Calephelis wrighti) white (common) checkered-skipper (Pyrgus albescens) Sulphurs orange sulphur (Colias eurytheme) Dichelosten sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina)

unidentified sulphur

Column Subtotal

20

Total = 37

Column Subtotal

			ot Butterfly Survey Form		
Surveyor			Date: Δ	20/15	
Site Nam	e: Proctor Valley - Village 14 of Ot	ay Ranch	Site Visi	t No:	
Acres Su	rveyed	rvey Time:	Chrs Acres per Hou	r: 7.58	
	rveyors Present:				
		101 1114			
			onditions		
		Temperature (°F)	Wind Speed (mph)	Cloud Cov	
Start	0945	72	0-2	10% h	124
End	1545	71	1-6	50% ha	20
Start					
End					
Vegetatio	on Communities Surveyed (inc. dor	ninant spp.)			
	Chamise Chaparal. CS	S (muntis	Sase) non-native crassland	d (80ms.	Eroo Nm
		+130	Sage) non-hattle grasslan		
	Host Plants	Obs.	Nectar Plants		Obs.
	ntain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobot	hrys spp.)	X
	l's clover (Castilleja exserta)	×	goldfields (Lasthenia spp.)		X
	on (Antirrhinum coulterianum) k (Cordylanthus rigidus)		goldenstar (Muilla spp.) fiddleneck (Amsinckia menziesii var.	intormodia)	× /
	ntain (Plantago patagonica)		onion (Allium spp.)	mermedia)	X
	nouses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)		×
	(Common opp.)		ground pink ( <i>Linanthus dianthiflorus</i> )		×
				The state of the s	
	P. (1. C. O	1	D 44 - 9 - 0 i -		
Checkers	Butterfly Species	No.	Butterfly Species Hairstreaks		No.
	patch (Chlosyne californica)		great purple hairstreak (Atlides halesu	s corcorani)	
	eckerspot (C. gabbii)		brown elfin (Callophrys augustinus)	3 00,00,00,00,00	
	ckerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. du	metorum affinis)	
chalcedon	checkerspot (E. chalcedona chalcedo	ona)	gray hairstreak (Strymon melinus pudi	ca)	
	eckerspot (Thessalia leanira wrighti)		Ladies/Admirals		
	scent (Phyciodes mylitta)		California sister (Adelpha bredowii cali	fornica)	
Blues	Line (Descriptions out)	****	Lorquin's admiral (Limenitis lorquini)		,
	gmy-blue ( <i>Brephidium exila</i> ) iled blue ( <i>Everes amyntula</i> )		west coast lady (Vanessa annabella) red admiral (V. atalanta rubria)		
	lue (Glaucopsyche lygdamus australi	s) 16	painted lady (V. cardui)		
	olue (Hemiargus ceraunus gyas)	10	American (Virginia) lady (V. virginiensi	s)	
	e (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)		
marine blu	e (Leptotes marina)		Swallowtails		
unidentified	d blue	12	pale swallowtail (Papilio eurymedon)		
Whites	10.00 m		western tiger swallowtail (P. rutulus)		
	getip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)		
	der's) orangetip (A. cethura) alifornia ringlet (Coenonympha califor	mica)	Miscellaneous monarch (Danaus plexippus)		
	rhite (Pieris rapae)	riica)	common buckeye (Junonia coenia gris	rea)	
	(common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	00)	
	e (P. sisymbrii)		Skippers		
unidentified			funereal duskywing (Erynnis funeralis)		16
Metalmark	(S		mournful duskywing (Erynnis tristis)		
	almark (Apodemia mormo virgulti)	\$	fiery skipper (Hylephila phyleus)		
	etalmark (Calephelis wrighti)		white (common) checkered-skipper (P	rgus albescens)	
Sulphurs	abus (Calian aun th)		Other		
	phur (Colias eurytheme) nge (Eurema nicippe)				
	ulfur (Phoebus sennae marcellina)				
unidentified					

Column Subtotal

20

Column Subtotal

Total

Total

44

Sun	2015 ( veyor: V. for Novik	Quino (	Checkers	pot Butterfly Surve	- /	
+	Name: Proctor Valley – Village 14	-f Ot D	a weeks		Date: 2/2///5	
				1.	Site Visit No:	
2) Acre	s Surveyed	Survey		5 hrs	Acres per Hour: 7.	3
€ ¶ Othe	r Surveyors Present: Brun	LUT	15tron	Truvis capper		
Other			- : : · · ·			
12 K			Field	Conditions		
	Time (24 hr)	. Temp	perature (°		(mph) Cloud C	OVOR
Star	t 1000	70	)	3-5	76%	over
End	1500	,	70	1-17	7010	2/ //
Star			10	3 /	50	10 Th
Enc						
. 3						
Vege	tation Communities Surveyed (inc.	dominar	nt spp.)			
in.	4			1-n. F		
3	1.10.10.50	VIII C	raur	Erigo Fas		
7						
dwarf	Host Plants		Obs.	Ne	ctar Plants	
	plantain (Plantago erecta)		¥		ntha/Plagiobothrys spp.)	Ob
purple	owl's clover (Castilleja exserta)		1	goldfields (Lasthenia s	op.)	14
snapd	ragon (Antirrhinum coulterianum)			goldenstar (Muilla spp.		13
Dirds-I	peak (Cordylanthus rigidus)				menziesii var. intermedia)	17
	plantain (Plantago patagonica)			onion (Allium spp.)		14
.> Chine:	se houses (Collinsia spp.)			buckwheat (Eriogonum	fasciculatum)	1
				ground pink (Linanthus	dianthiflorus)	1
						1
-	Butterfly Species		No.	Butte	rfly Species	No.
	erspots			Hairstreaks		140.
	ia patch (Chlosyne californica) checkerspot (C. gabbii)			great purple hairstreak (/	Atlides halesus corcorani)	
	checkerspot (C. gabbii) checkerspot (Euphydryas editha quinc	0)		brown elfin (Callophrys a	ugustinus)	Y
	on checkerspot (E. chalcedona chalc			bramble (perplexing) hair	rstreak (C. dumetorum affinis)	
Leanira	checkerspot (Thessalia leanira wrigh	nti)		gray hairstreak (Strymon Ladies/Admirals	melinus pudica)	t
Mylitta	crescent (Phyciodes mylitta)	,,,,		California sister (Adelpha	hradavili selifei	
Blues				Lorquin's admiral (Limen	itis lorquini	
western	pygmy-blue (Brephidium exila)			west coast lady (Vanessa	a annahalla)	-
	tailed blue (Everes amyntula)			red admiral (V. atalanta r	ubria)	
souther	n blue (Glaucopsyche lygdamus austi	ralis)	HUNT	painted lady (V. cardui)		1
	s blue (Hemiargus ceraunus gyas)			American (Virginia) lady (	V. virginiensis)	1
	olue (Icaricia acmon acmon)			unidentified lady (Vaness		111
Trytolog Tuckness to	olue ( <i>Leptotes marina</i> ) fied blue			Swallowtails		111
Whites	led blue		UH	pale swallowtail (Papilio e		
	ngetip (Anthocharis sara sara)			western tiger swallowtail (		
	Felder's) orangetip (A. cethura)			anise swallowtail (P. zelic	aon)	
common	California ringlet (Coenonympha cali	ifornica)		Miscellaneous		
A STATE OF THE PARTY OF THE PAR	white (Pieris rapae)			monarch (Danaus plexipp common buckeye (Junoni		
	ed (common) white (Pontia protodice)	)		mourning cloak (Nymphali		
	hite (P. sisymbrii)			Skippers	в аппорај	
	ied white			funereal duskywing (Eryni	nis funeralis)	1 64 1/
Metalma	5-11-5.		/.	mournful duskywing (Eryn		1771 19
	etalmark (Apodemia mormo virgulti)	111	MITTHE	fiery skipper (Hylephila ph		
	metalmark (Calephelis wrighti)				d-skipper (Pyrgus albescens)	
Sulphur				Other		
	ulphur (Colias eurytheme)					
	ange (Eurema nicippe) sulfur (Phoebus sennae marcellina)					
	ed sulphur					
Sincontill	Column S	Subtotal	32			11
	Column	Juntoldi	) (-		Column Subtotal	14

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2015 Quino Checkerspot Butterfly Survey Form

		Zo to damo onconcropor Date	dering carrey round	
Surveyor:	3. Lohstoda		Date: 2/21/15	
Site Name: _P	Proctor Valley – Vi	llage 14 of Otay Ranch K 🎒 , L , J	Site Visit No:	
Acres Surveye		Survey Time: 1000 - 16		
Other Surveyo	rs Present:	Towis cooper		
	1	Victor Novile		

Field Conditions							
T	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover			
Start	1000	70'F	3-5	90%			
End	1500	70'7	5-7	764 50% thin clas			
Start							
End							

Vegetation Communities Surveyed (inc. dominant spp.)								
(SS: Art cd, Wal Lauring Acmisson Supporting								
Chamise whop: Ade Eac.								

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X
purple owl's clover (Castilleja exserta)	7	goldfields (Lasthenia spp.)	X
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	X
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	X.
woolly plantain (Plantago patagonica)		onion (Allium spp.)	X
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	4
0 - 1,511 - 1,511		ground pink (Linanthus dianthiflorus)	X
		Dichlostemma	+

Butterfly Species	No.	Butterfly Species	No
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)	101	great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	1
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	11
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	1
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	3
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)	MILL	painted lady (V. cardui)	1//
Edward's blue (Hemiargus ceraunus gyas)	14.1	American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	
marine blue (Leptotes marina)	1	Swallowtails	
unidentified blue		pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)	3	monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)	1	mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)	1	Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	1
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	HITH	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	
orange sulphur (Colias eurytheme)	THE RESERVE		
sleepy orange (Eurema nicippe)			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur			
Column Subtotal	25	Column Subtotal	8
		Total	4

Marium

Hirshine.

Hirshine.

Salvin Munzii

Sanicula

Minutus Arr.

Dich cap

Loniera sp

cammissanin

chuma syche

Baheopsis Las.

mirabilis vida ped. Downing

Escholz. cd. Rhamnus croc.

Ribes (chip covered)

Evidictyon (M) otalis p-c

sometic eds.

moilla war. Dodewhen lep.

Surveyor:	TRAVIS	COOPER		_ Date:	115
Site Name:	Proctor Valley -	- Village 14 of Otay Ranch	J. L. K (South	Site Visit No:	1
Acres Surve	yed 110	Survey Time:	5 hrs	Acres per Hour:	7.3
Other Survey	ors Present:	Victor Novik	, Brian Lost	zh	
			(		

Field Conditions						
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover		
Start	1000	70	3-5	90%		
End	1500	70	5-7	50 % hazv		
Start				,		
End						

Vegetation Communities Surveyed (inc. dominant spp.)								
Colleged down coon	AREA & Chanice	chaparral (c	hamise)					
	ren-hatire grassland							

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	У
purple owl's clover (Castilleja exserta)		goldfields (Lasthenia spp.)	X
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	X
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	O
woolly plantain (Plantago patagonica)		onion (Allium spp.)	X
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	V
		ground pink (Linanthus dianthiflorus)	Ŷ

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	1
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)	Q	painted lady (V. cardui)	5
Edward's blue (Hemiargus ceraunus gyas)	- 0	American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	1
marine blue (Leptotes marina)	1	Swallowtails	
unidentified blue	8	pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)	3	anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)	2	monarch (Danaus plexippus)	Trans.
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	Lat -
checkered (common) white (Pontia protodice)	1	mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	6
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	29	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)	-	white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	1
orange sulphur (Colias eurytheme)		Cal Rimet	2
sleepy orange (Eurema nicippe)		3	
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur	uses in the		
Column Subtotal	51	Column Subtotal	13
		Total	64

Pr 2	8.45	ns g+H - 2
2 '/. 2 '/.	er .	Other flawing plants: Mine Gradium SALCLE MIR PICCAP SALMEL Levi Salanum Sp. CEATON Can Solanum Sp. CEATON Can
grassl fiscia	and water	SALCLE SALMEL CEATON
p.) dia)	XXXXXXX	Minudus sp. MIRLAE Lepidium sp. a-sp. Camissonia sp.
rani) m affinis)	No.	SA. CALCIL HELSCO
	29	HESWHI LATVES CLAPUR DODELE
	2	Chanesyce SALMUN SALMUN

te Name	Laurie Gor	Otay Ranch		Site Visit No: 2	100
cres Sur	02	urvey Tim	e: C	5.5 hrs per Acres per Hour:	8.45
	veyors Present: Alicie		1	NIS/	
510, 515, 517, 61 <del>7, 617, 6</del> 1	TING!	4 1111		17.79 15.77	
		-	Field Co	onditions	
11.	Time (24 hr)	Tempera		Wind Speed (mph) Cloud Cove	r
Start	1040	1.6	7	5-10 1 2%	
End	1615	11	-	25-7 3'/	1 1
Start	1015	- 61.	9	0.5-7	104
1000					
End					
/egetatio	on Communities Surveyed (inc. o	la major a ma			_
11/200				CONTRACTOR OF THE PROPERTY OF	-
Coas	stal sage scrub (.	Salvia	done	bades dom.) non-native grassle	nd
(600)	ivent browns sp. d	: (.ma	chan	ice chapaval (Adenostona fiscicu	elaten
· de	Host Plants	land!	Ohr	No. 4 - Direct	Oho
dwarf plan	ntain (Plantago erecta)		Obs.	Nectar Plants popcorn flower (Cryptantha/Plagiobothrys spp.)	Obs.
	d's clover (Castilleja exserta)		<b>\$</b>	goldfields (Lasthenia spp.)	\$
	on (Antirrhinum coulterianum)			goldenstar (Muilla spp.)	X
birds-bea	k (Cordylanthus rigidus)			fiddleneck (Amsinckia menziesii var. intermedia)	X
woolly pla	antain (Plantago patagonica)	Mr. Color		onion (Allium spp.)	X
Chinese I	houses (Collinsia spp.)	DIME.		buckwheat (Eriogonum fasciculatum)	X
	20190	Z. 1.	41.1	ground pink (Linanthus dianthiflorus)	X
					X-III
	Butterfly Species		No.	Butterfly Species	No.
Checkers	pots			Hairstreaks	
	patch (Chlosyne californica)			great purple hairstreak (Atlides halesus corcorani)	
	neckerspot (C. gabbii)	360-4		brown elfin (Callophrys augustinus)	
	eckerspot (Euphydryas editha quine		-	bramble (perplexing) hairstreak (C. dumetorum affinis)	
	n checkerspot ( <i>E. chalcedona chalc</i> neckerspot ( <i>Thessalia leanira wrigh</i>			gray hairstreak (Strymon melinus pudice)	
	neckerspot ( <i>i nessalla leanira wrigi</i> escent ( <i>Phyciodes mylitta</i> )	iu)	201	Ladies/Admirals California sister (Adelpha bradowii californica)	
Blues	(r nywodos mynka)			California sister (Adelpha bredowii californica)  Lorquin's admiral (Limenitis lorquini)	24-19
	ygmy-blue (Brephidium exila)			west coast lady (Vanessa annabella)	
	ailed blue (Everes amyntula)	1.77		red admiral (V. atalanta rubria)	
	blue (Glaucopsyche lygdamus aus	ralis)	13	painted lady (V. cardui)	2
	blue (Hemiargus ceraunus gyas)			American (Virginia) lady (V. virginiensis)	9
	ue (Icaricia acmon acmon)			unidentified lady (Vanessa sp.)	
	ue (Leptotes marina)			Swallowtails	
unidentifie Mbitos	ed Diué		4	pale swallowtail (Papilio eurymedon)	
Whites Sara oran	getip (Anthocharis sara sara)	and the second	2	western tiger swallowtail ( <i>P. rutulus</i> ) anise swallowtail ( <i>P. zelicaon</i> )	
	elder's) orangetip (A. cethura)			Miscellaneous	
	California ringlet (Coenonympha ca	lifornica)	100	monarch (Danaus plexippus)	-
	white (Pieris rapae)	3		common buckeye (Junonia coenia grisea)	
	d (common) white (Pontia protodice	)		mourning cloak (Nymphalis antiopa)	1
	ite (P. sisymbrii)	364		Skippers	
ınidentifie				funereal duskywing (Erynnis funeralis)	2
detalmar		10 m		mournful duskywing (Erynnis tristis)	
	talmark (Apodemia mormo virgulti)	- 74	26	fiery skipper (Hylephila phyleus)	1
	netalmark (Calephelis wrighti)			white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs	hhur (Calies aundhama)		-	Other	
	phur (Colias eurytheme) nge (Eurema nicippe)		-		
	nge (Eurema nicippe) sulfur (Phoebus sennae marcellina	, -			
indicas s			1		
nidentifie					

Total: 62

Solanum partshir, awantiacus, Lathyns vestifus, Oxalis californica, ESMSCHOLZIA Call Fornica sp., lalystegia macrostegio Erodum 366 Calandrinla ciliata, Cutherregia glaber, Dichelostemma munzin alula SPPJ chysantemiolia, Camissonia tomentosus, Mirabilis Sp Dlants: Acmispen bellum, Eu crypta

SYLVChi

unidentified sulphur

Column Subtotal

1+4

2015 Quino Checkerspot Butterfly Survey Form Alicia Hill Site Visit No: Site Name: Proctor Valley – Village 14 of Otay Ranch Acres per Hour: 10,0 Acres Surveyed 93 Survey Time: Laurie Corman Other Surveyors Present: **Field Conditions Cloud Cover** Time (24 hr) Wind Speed (mph) Temperature (°F) 040 (do. 2 5-10 Start End Start End Vegetation Communities Surveyed (inc. dominant spp.) (Namise Chaparral non-native Obs. **Host Plants** Obs. **Nectar Plants** dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) × purple owl's clover (Castilleja exserta) goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) fiddleneck (Amsinckia menziesii var. intermedia) birds-beak (Cordylanthus rigidus) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) **Butterfly Species** No. **Butterfly Species** No. Checkerspots Hairstreaks California patch (Chlosyne californica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals California sister (Adelpha bredowii californica) Mylitta crescent (Phyciodes mylitta) Blues Lorquin's admiral (Limenitis lorquini) west coast lady (Vanessa annabella) western pygmy-blue (Brephidium exila) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) southern blue (Glaucopsyche lygdamus australis) painted lady (V. cardui) Edward's blue (Hemiargus ceraunus gyas) American (Virginia) lady (V. virginiensis) Acmon blue (Icaricia acmon acmon) unidentified lady (Vanessa sp.) marine blue (Leptotes marina) **Swallowtails** 0 unidentified blue pale swallowtail (Papilio eurymedon) Whites western tiger swallowtail (P. rutulus) Sara orangetip (Anthocharis sara sara) 3 anise swallowtail (P. zelicaon) desert (Felder's) orangetip (A. cethura) Miscellaneous common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) checkered (common) white (Pontia protodice) mourning cloak (Nymphalis antiopa) spring white (P. sisymbrii) unidentified white funereal duskywing (Erynnis funeralis) Metalmarks mournful duskywing (Erynnis tristis) Behr's metalmark (Apodemia mormo virgulti) fiery skipper (Hylephila phyleus) Wright's metalmark (Calephelis wrighti) white (common) checkered-skipper (Pyrgus albescens) Sulphurs orange sulphur (Colias eurytheme) Grey Burkeye sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina)

Column Subtotal

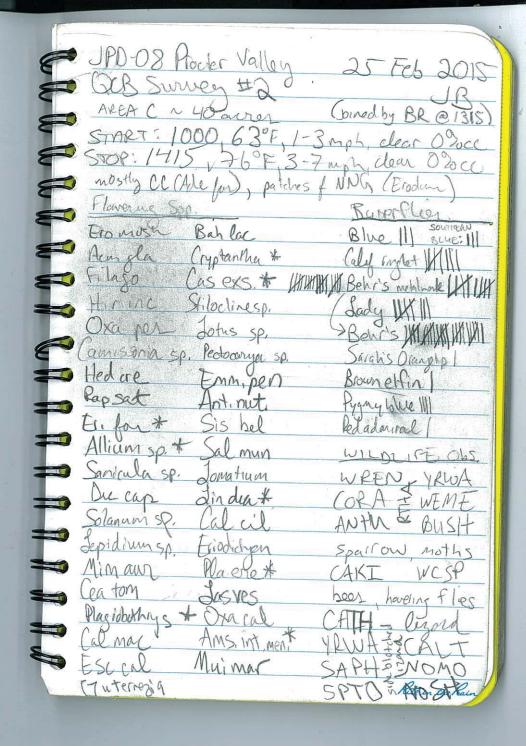
Surveyor:	Jasmine Bakke	r		Date:	2/25/2015	
Site Name:	Proctor Valley	<ul> <li>Village 14 of Otay Ranch (J</li> </ul>	PD-08); Area C	;	Site Visit No:	2
Acres Surve	eyed 40	Survey Time:	4 hours 15 minutes	Acres	per Hour: 9	.41
Other Surve	yors Present:	Stacy Nigro ~ Area A		_		
		Joined by supervised individ	dual: Ben Rosenbaum at 13	15		

	Field Conditions							
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover				
Start	1000	63	1-3	0 %, clear & sunny				
End	1415	76	3-7	0 %, clear & sunny				
Start								
End								

Vegetation Communities Surveyed (inc. dominant spp.)
NNG, DCSS, CC, SMC

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X
purple owl's clover (Castilleja exserta)	X	goldfields (Lasthenia spp.)	
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	Х
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	Х
woolly plantain (Plantago patagonica)		onion (Allium spp.)	Х
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	Х
		ground pink (Linanthus dianthiflorus)	Х

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	1
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	
western pygmy-blue (Brephidium exila)	4	west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	1
southern blue (Glaucopsyche lygdamus australis)	3	painted lady (V. cardui)	
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	8
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	3	pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)	1	anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)	8	monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	56	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange (Eurema nicippe)			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur			
Column Subtotal	75	Column Subtotal	10
		Total	85



Surveyor:	Stacy Nigro			Date: 2/25/20	15
Site Name:	Proctor Valley	<ul> <li>Village 14 of Otay Ranch (J</li> </ul>	PD-08); Area A	Site Visit	No: 2
Acres Surve	eyed <u>45</u>	Survey Time:	4 hours 35 min	Acres per Hour	: 9.8
Other Surve	eyors Present:	Jasmine Bakker ~ Area C			

	Field Conditions							
	Time (24 hr) Temperature (°F) Wind Speed (mph) Cloud Cover							
Start	0945	64	2-5	0% / clear				
End	1420	76	3-7	5% / clear				
Start								
End								

#### **Vegetation Communities Surveyed (inc. dominant spp.)**

<u>DCSS</u> – Artemisia californica, Erigonum fasciculatum, Salvia apiana, Acmispon glaber; <u>SMC</u> – Ceanothus tomentosus, Adenostoma fasciculatum, Xylococcus bicolor, Rhamnus crocea; <u>NNG</u> – Avena, bromes; <u>NG</u> – Stipa pulchra

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X
purple owl's clover (Castilleja exserta)	X	goldfields (Lasthenia spp.)	
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	Х
woolly plantain (Plantago patagonica)		onion (Allium spp.)	Х
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	Х
		ground pink (Linanthus dianthiflorus)	Х

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis Iorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)	3	painted lady (V. cardui)	
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	3
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	5	pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)	4	anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)	3	monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	2
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	5	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper ( <i>Pyrgus albescens</i> )	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange (Eurema nicippe)			
cloudless sulfur ( <i>Phoebus sennae marcellina</i> )			
unidentified sulphur			
Column Subtotal	20	Column Subtotal	5
		Total	25

JPD-08 p2/2	Notive goodled - Nass pulch * wy source	Migas Sul 2 point	AMKE ANHU	9		30
2/25/15 JPD-D& SNIGRO Proctor Valle Other Reach	50 - Tal	8	Reports in bloom; Silv blue == 3  Reports of Sol por betts m. [= 5  Exportion of 1804 lac blue sp 1 = 5		Acm gla   Plenteve 1000 Torn: 25 Mic. cal (12ev) Crypt, ap.   Phac cic   Sisy berl Erio flac   Plegio sp   Grap col Min aur Hirse Inc   Carti ens   Ant nutt	Coly mac Leth. Vest (William)  Oxa pes-c Coan from Low dary Allism Sta Esch cal Clemstis prec  Evisal crass Marmac  Lin dian  Dad cle

	Surveyor: Alicia Hill	,	Date: 2/25/19										
	Site Name: Proctor Valley – Village 14 of Otay Ran	ch F	Site Visit No: 2										
	Acres Surreyed 127 Surrey Ti	76	- 00/3/M have										
	Acres Surveyed 15+ Survey Time: 25.5 person nows Acres per Hour: 5.5+												
	Other Surveyors Present: Laune Comman, Travis Cooper, Victor North												
	Field Conditions												
	Time (24 hr) Tempe	rature (°F		10.7									
				er									
		8	0.5-3.5 5%										
	End 15:00 70	0.0	3-8 2%										
	Start												
	End												
	Vegetation Communities Surveyed (inc. dominant	spp.)	Chamise chapavrol, CSSCAV	teresa									
	Salua WALLAND GO GO												
	Savia Marizi, Er. Fasic	-),1	1001-native grassland (Brom	usie									
			J										
	Host Plants	Obs.	Nectar Plants	Obs.									
	dwarf plantain (Plantago erecta)	V	popcorn flower (Cryptantha/Plagiobothrys spp.)	Vbs.									
	purple owl's clover (Castilleja exserta)	<b>\rightarrow</b>	goldfields ( <i>Lasthenia</i> spp.)	0									
\$	snapdragon (Antirrhinum coulterianum)	1	goldenstar (Muilla spp.)	1									
3	birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	6									
\$ 7	woolly plantain (Plantago patagonica)		onion (Allium spp.)	2									
£	Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	X									
3	- Annual Control of the Control of t		ground pink (Linanthus dianthiflorus)	X									
Lothus strigosius Lupinus spi				1-									
र र				-									
No.	Butterfly Species	No.	Butterfly Species	No.									
	Checkerspots		Hairstreaks										
8	California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)										
.3	Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)										
ξ	Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	-									
ミエノも	chalcedon checkerspot ( <i>E. chalcedona chalcedona</i> )  Leanira checkerspot ( <i>Thessalia leanira wrighti</i> )		gray hairstreak (Strymon melinus pudica)  Ladies/Admirals										
3048	Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	-									
210	Blues		Lorquin's admiral ( <i>Limenitis lorquini</i> )										
Salis Salis	western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)										
5 K K 2	western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)										
60m	southern blue (Glaucopsyche lygdamus australis)	1	painted lady (V. cardui)										
4	Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)										
_	Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	10									
3	marine blue (Leptotes marina)	3	Swallowtails										
024	unidentified blue	12	pale swallowtail (Papilio eurymedon)										
PAR. Spending	Whites		western tiger swallowtail (P. rutulus)										
D 1 5 0	Sara orangetip (Anthocharis sara sara)	2	anise swallowtail (P. zelicaon)	1									
DL.PAR radum Syptem C.M. C	desert (Felder's) orangetip (A. cethura)		Miscellaneous										
4003	common California ringlet (Coenonympha californica)		monarch (Danaus plexippus)										
25 5 5	cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)										
BOWR	checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)										
,	spring white (P. sisymbrii)	(5)	Skippers	(A)									
	unidentified white	2	funereal duskywing (Erynnis funeralis)	912									
\$ 3	Metalmarks	10	mournful duskywing (Erynnis tristis)										
0 15	Behr's metalmark (Apodemia mormo virgulti)	10	fiery skipper ( <i>Hylephila phyleus</i> )	1									
000	Wright's metalmark (Calephelis wrighti)	13733	white (common) checkered-skipper ( <i>Pyrgus albescens</i> )	1									
7 . 44	Sulphurs orange sulphur (Colias eurytheme)	1	Other										
AP. Amid	sleepy orange (Eurema nicippe)		1.70 (										
CAP.	cloudless sulfur (Phoebus sennae marcellina)												
V 0 35	unidentified sulphur	1											
50 FD	Column Subtotal	31	Column Subtotal	30									
Plants in blooms DIC, CAP. Pammismia SP. Calandonia ciliati	- Commodition		Total	Cel									
1 L	Lancas de la company de la com		1001	-									

		ot Butterfly Survey Form	0-14	2005
Surveyor: Laurie Gorn	nan	Date: 2-25-15	Pos	9,15
Site Name: Proctor Valley - Village 14 of Otay	Ranch	25.5 Sw W Acres per Hour: 5.37	E.I.	<b>K</b>
Acres Surveyed 37	Time:	255 SWY WPAGES DE HOUR 537		
Other Survey Day Victors	Al . 'le	To As Competition.	1411	
Other Surveyors Present: Victor	NOVIK	Travis Cooper, Alicia	TILL	
		Part of the second of the seco		
	F: 110	and the state of t		
Time (24 be)		onditions Wind Speed (mph) Cloud Cover		
	emperature (°F)			
Start 0800	02.	0-1 31/.		
End   1500   7	60	3-8 37		
Start				
End				
End				
forestation Communities Communities to				
Vegetation Communities Surveyed (inc. dom	inant spp.)	1 12		· .
Chamise chaparral (cha	mise don	1: non-rative grassland Bomu	S. S.	rodium
Coastal sage scrub (AR			-, 0	
Dasin Sugar St W (AK	10,10,10	301,0011113		
Host Plants	Obs.	Nectar Plants	Obs.	DO PA
dwarf plantain ( <i>Plantago erecta</i> )	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X	H509
ourple owl's clover (Castilleja exserta)	×	goldfields (Lasthenia spp.)	X	ACW GIA
snapdragon (Antirrhinum coulterianum)		goldenstar (Muille spp.)	X	840 B
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	X	5- B
woolly plantain (Plantago patagonica)		onion (Allium spp.)	X	1 7
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	X	
		ground pink (Linanthus dianthiflorus)	X	OBEN
				23 2 14
			N.	CEATOR CEATOR
Butterfly Species	No.	Butterfly Species	No.	350
Checkerspots		Hairstreaks		SS SI
California patch (Chlosyne californica)		great purple hairstreak (Attides halesus corcorani)		70,
Sabb's checkerspot (C. gabbil)		brown elfin (Callophrys augustinus)		6
Quino checkerspot (Euphydryas editha quino)	_ 111	bramble (perplexing) hairstreak (C. dumetorum affinis)		58
halcedon checkerspot (E. chalcedona chalcedo	na)	gray hairstreak (Strymon melinus pudica)	_	OXA CAN Solanum
eanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals		Starus
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	-	1228
Blues		Lorquin's admiral (Limenitis lorquini)		E & 3:
vestern pygmy-blue (Brephidium exila)	LI SE	west coast lady (Vanessa annabella)	_	
vestern tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	7	8
outhern blue (Glaucopsyche lygdamus australis	9)	painted lady (V. cardui)		
dward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	-,-	3 X Z,
cmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	-11	255
narine blue (Leptotes marina)	, serve all	Swallowtails		132
nidentified blue	18	pale swallowtail (Papilio eurymedon)		SALMEL
/hites	710	western tiger swallowtail (P. rutulus)		375
ara orangetip (Anthocharis sara sara)	3.	anise swallowtail (P. zelicaon)		~
esert (Felder's) orangetip (A. cethura)	Heavy and	Miscellaneous		T Z 1
ommon California ringlet (Coenonympha californ	nica)	monarch (Danaus plexippus)		五百
abbage white (Pieris rapae)	* - 12	common buckeye (Junonia coenia grisea)		TRING
neckered (common) white (Pontia protodice)	N. O. ST.	mourning cloak (Nymphalis antiopa)	المحسلان	HIR THE
oring white (P. sisymbril)	2	Skippers		ZY
nidentified white	4.4	funereal duskywing (Erynnis funeralis)	6	C 1 1
etalmarks		mournful duskywing (Erynnis tristis)	6	`
ehr's metalmark (Apodemia mormo virgulti)	27	fiery skipper (Hylephila phyleus)		
right's metalmark (Calephelis wrighti)	Tradicale.	white (common) checkered-skipper (Pyrgus albescens)	-1	
ulphurs	5-15-5	Other		
ange sulphur (Colies eurytheme)				1
eepy orange (Eurema nicippe)				1
pudless sulfur ( <i>Phoebus sennae marcellina</i> )				1
				1
identified sulphur Column Sul	ototal 51	Column Subtotal	20	1
Column Suc	JULIAN 19			4

Total 71

	Surveyor: TRAVIS COUPER			Date:									
	Site Nam	e: Proctor Valley – Villag	e 14 of Otay Ran	ch F	I,K	Site V	isit No:2						
		rveyed 137											
		rveyors Present:											
	Other ou	25.5 total person hrs;											
	Time (24 hr) Temp			rature (°F)	onditions	nd Speed (mph)	Cloud Cov	0.5					
	The state of the s			2	, , , , , ,			G1					
	End 15φφ					0-1	5%						
			7	6		3-8	29						
	Start												
	End						10						
	Vegetatio	on Communities Surveyed	d (inc. dominant	spp.)									
	C	hamise Chaparra	J, CS5 (:	Salva m	unzing Er	ogenen) NN	a (Doms Stee)	Jun V					
		Host Plants		Obs.	T	Nectar Plants		Obs.					
	dwarf plan	ntain (Plantago erecta)		×	popcorn flow	er (Cryptantha/Plagiol	pothrys spp.)	×					
	purple ow	l's clover (Castilleja exserta	э)		goldfields (L	asthenia spp.)		×					
	snapdrago	on (Antirrhinum coulterianu	ım)		goldenstar (/	Muilla spp.)		X					
	The same of the sa	(Cordylanthus rigidus)				Amsinckia menziesii va	r. intermedia)	X					
		ntain ( <i>Plantago patagonica</i>	a)		onion (Allium			X					
	Chinese h	ouses (Collinsia spp.)				Eriogonum fasciculatu		X					
					ground pink	(Linanthus dianthifloru	s)	X					
)		D. W. G. O											
PHACIC	Checkers	Butterfly Species		No.	Hairstreaks	Butterfly Specie	5	No.					
1 4		California patch (Chlosyne californica)			-	nairstreak (Atlides hale	sus corcorani)						
7 0		Gabb's checkerspot (C. gabbii)				Callophrys augustinus)	odo ooroorani)						
		ckerspot (Euphydryas edith	na quino)			olexing) hairstreak (C.	dumetorum affinis)						
945		checkerspot (E. chalcedor				k (Strymon melinus pu							
CCCHP CCCHP CCCHP	Leanira ch	eckerspot (Thessalia leanii	ra wrighti)		Ladies/Admi	AMADA ANALAS OF THE ABOUT THE STATE OF THE S							
7 7	Mylitta cres	scent (Phyciodes mylitta)			California sist	er (Adelpha bredowii d	ealifornica)						
and the second	Blues				Lorquin's adm	niral (Limenitis lorquini)							
	western py	gmy-blue (Brephidium exil	a)		west coast la	dy (Vanessa annabell	a)						
2	western tai	led blue (Everes amyntula)	)		red admiral (\	/. atalanta rubria)							
CROOL SP VIORED LATVES OFFACE CALSP	southern b	lue (Glaucopsyche lygdam	us australis)	15	painted lady (	V. cardui)		5					
A CE	Edward's b	lue (Hemiargus ceraunus	gyas)			ginia) lady (V. virginier	nsis)						
100 VIC P	Acmon blu	e (Icaricia acmon acmon)			unidentified la	ndy (Vanessa sp.)		10					
M > 700	marine blue	e (Leptotes marina)		1	Swallowtails								
	unidentified	d blue		5	pale swallowt	ail (Papilio eurymedon	)						
SOL PAR NOTTEX MIRLAG	Whites				western tiger	swallowtail (P. rutulus)							
17 15 105	Sara orang	etip (Anthocharis sara sara	a)		anise swallow	rtail (P. zelicaon)		1					
725874	desert (Fel	der's) orangetip (A. cethura			Miscellaneou	IS							
MVSSI	common C	alifornia ringlet (Coenonym	npha californica)		monarch (Dai	naus plexippus)							
	cabbage w	hite ( <i>Pieris rapae</i> )			common buck	keye (Junonia coenia g	risea)						
	checkered	(common) white (Pontia pr	rotodice)		mourning clos	ak (Nymphalis antiopa)							
	spring white	e ( <i>P. sisymbrii</i> )			Skippers		•						
	unidentified	d white			funereal dusk	ywing (Erynnis funeral	is)	5					
	Metalmark	s			mournful dust	kywing (Erynnis tristis)							
	Behr's met	almark (Apodemia mormo	virgulti)	36		Hylephila phyleus)							
	Wright's me	etalmark (Calephelis wrigh	ti)		white (commo	n) checkered-skipper	(Pyrgus albescens)						
	Sulphurs		1711 		Other								
	orange sulp	hur (Colias eurytheme)	12_12-12-12										
	sleepy oran	ige (Eurema nicippe)											
	cloudless s	ulfur ( <i>Phoebus sennae ma</i>	rcellina)										
	unidentified												
		C	olumn Subtotal	56			Column Subtotal	21					
							Tatal	7-7					

2015 Quino Checkerspot Butterfly Survey Form J'you Noule Surveyor: Site Name: Proctor Valley - Village 14 of Otay Ranch Site Visit No. Acres per Hour: Survey Time: Acres Surveyed ravis Other Surveyors Present: Lel une **Field Conditions** Wind Speed (mph) Cloud Cover Time (24 hr) Temperature (°F) Start End Start End Vegetation Communities Surveyed (inc. dominant spp.) Host Plants Obs. **Nectar Plants** Obs. dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) goldfields (Lasthenia spp.) purple owl's clover (Castilleja exserta) goldenstar (Muilla spp.) snapdragon (Antirrhinum coulterianum) fiddleneck (Amsinckia menziesii var. intermedia) birds-beak (Cordylanthus rigidus) onion (Allium spp.) woolly plantain (Plantago patagonica) buckwheat (Eriogonum fasciculatum) Chinese houses (Collinsia spp.) ground pink (Linanthus dianthiflorus) No. **Butterfly Species** No. **Butterfly Species** Checkerspots Hairstreaks great purple hairstreak (Atlides halesus corcorani) California patch (Chlosyne californica) brown elfin (Callophrys augustinus) Gabb's checkerspot (C. gabbii) bramble (perplexing) hairstreak (C. dumetorum affinis) Quino checkerspot (Euphydryas editha quino) gray hairstreak (Strymon melinus pudica) chalcedon checkerspot (E. chalcedona chalcedona) Ladies/Admirals Leanira checkerspot (Thessalia leanira wrighti) California sister (Adelpha bredowii californica) Mylitta crescent (Phyciodes mylitta) Lorquin's admiral (Limenitis Iorquini) Blues western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) southern blue (Glaucopsyche lygdamus australis) painted lady (V. cardui) American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) Swallowtails marine blue (Leptotes marina) pale swallowtail (Papilio eurymedon) unidentified blue MI western tiger swallowtail (P. rutulus) Whites Sara orangetip (Anthocharis sara sara) anise swallowtail (P. zelicaon) Miscellaneous desert (Felder's) orangetip (A. cethura) common California ringlet (Coenonympha californica) monarch (Danaus plexippus) common buckeye (Junonia coenia grisea) cabbage white (Pieris rapae) mourning cloak (Nymphalis antiopa) checkered (common) white (Pontia protodice) Skippers spring white (P. sisymbrii) funereal duskywing (Erynnis funeralis) unidentified white mournful duskywing (Erynnis tristis) Metalmarks fiery skipper (Hylephila phyleus) Behr's metalmark (Apodemia mormo virgulti) white (common) checkered-skipper (Pyrgus albescens) Wright's metalmark (Calephelis wrighti) Other Sulphurs orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) unidentified sulphur Column Subtotal

Total

Column Subtotal

2015 Quino Checkerspot Butterfly Survey Form Date: 2-26-15
Site Visit No: 2 Area J#2

Acres per Hour: 6.59 pp Site Name: Proctor Valley - Village 14 of Otay Ranch Acres Surveyed Survey Time: Travis Other Surveyors Present: **Field Conditions** Temperature (°F) Time (24 hr) Wind Speed (mph) Cloud Cover Start End Start End Vegetation Communities Surveyed (inc. dominant spp.) Eriagnum NUTNE Host Plants Obs. **Nectar Plants** Obs. dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleja exserta) goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) **Butterfly Species** No. **Butterfly Species** No Checkerspots Hairstreaks California patch (Chlosyne ealifornica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) 491 Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals Mylitta crescent (Phyciodes mylitta) California sister (Adelpha bredowii californica) Lorquin's admiral (Limenitis lorquini) Blues western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) southern blue (Glaucopsyche lygdamus australis) painted lady (V. cardui) American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) marine blue (Leptotes marina) Swallowtails pale swallowtail (Papilio eurymedon) unidentified blue Whites western tiger swallowtail (P. rutulus) Sara orangetip (Anthocharis sara sara) anise swallowtail (P. zelicaon) Miscellaneous desert (Felder's) orangetip (A. cethura) common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) checkered (common) white (Pontia protodice) mourning cloak (Nymphalis antiopa) spring white (P. sisymbrii) Skippers unidentified white funereal duskywing (Erynnis funeralis) Metalmarks mournful duskywing (Erynnis tristis) Behr's metalmark (Apodemia mormo virgulti) fiery skipper (Hylephila phyleus) Wright's metalmark (Calephelis wrighti) white (common) checkered-skipper (Pyrgus albescens) Other Sulphurs + 10 +5 11 orange sulphur (Colias eurytheme) 1111 sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) unidentified sulphur Column Subtotal Column Subtotal Total

Surveyor: TRA	WIS COUPER			Date: 2/26/15
Site Name: Proctor	Valley – Village 14	of Otay Ranch	J+L	Site Visit No:
Acres Surveyed	89	Survey Time:	6.75 hrs	Acres per Hour: 6,59
Other Surveyors Pre	esent: Victor	2 NOVIK		

Field Conditions							
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover			
Start	0900	62°	1-3	30%			
End	1545	72°	5-8	5 %			
Start							
End							

Vegetation Communities Surveyed (inc. domi	nant spp.)		
Chamise chaparal.	CSS ( Ericyonum lutus)	NNG (Bromus,	Endium) Notes has
(Stipu spe.)		,	

Host Plants	Obs.	Nectar Plants	Obs
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	
purple owl's clover (Castilleja exserta)		goldfields (Lasthenia spp.)	X
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	X
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	X
woolly plantain (Plantago patagonica)		onion (Allium spp.)	X
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	X,
		ground pink (Linanthus dianthiflorus)	X

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)	5	brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	1
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	D Ceste
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	1
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)	20	painted lady (V. cardui)	5
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)	1	unidentified lady (Vanessa sp.)	10
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	15	pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)	14	anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)	6	monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	10
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	72	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange (Eurema nicippe)			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur	1		
Column Subtotal	123	Column Subtotal	29
·		Total	152

DICCAP BAHLAR PENANR CASDEN GUTCAL TSOMEN BRANIS PERARIS EUCCHR PERARIS

SANBID VIOPED LATHUES CALCIL SOLPAR MIRLAG ACMELA LOM DAS

2015 Quino Checkerspot Butterfly Survey Form Laurie Gorman Date: 2-26-15 Site Visit No: 2 - Polygon M
Acres per Hour: 9.23 Site Name: Proctor Valley - Village 14 of Otay Ranch 30 Survey Time: **Acres Surveyed** Other Surveyors Present: none Field Conditions Cloud Cover Time (24 hr) Wind Speed (mph) Temperature ('F) 60% Start 1245 10% thin End 1600 Start End Vegetation Communities Surveyed (inc. dominant spp.) Obs. Nectar Plants Obs. **Host Plants** popcorn flower (Cryptantha/Plagiobothrys spp.) dwarf plantain (Plantago erecta) goldfields (Lasthenia spp.) purple owl's clover (Castilleja exserta) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) fiddleneck (Amsinckia menziesii var. intermedia) birds-beak (Cordylanthus rigidus) woolly plantain (Plantago patagonica) onion (Allium spp.) buckwheat (Eriogonum fasciculatum) Chinese houses (Collinsia spp.) ground pink (Linanthus dianthiflorus) No. **Butterfly Species Butterfly Species** No. Hairstreaks Checkerspots great purple hairstreak (Atlides halesus corcorani) California patch (Chlosyne californica) brown elfin (Callophrys augustinus) Gabb's checkerspot (C. gabbii) bramble (perplexing) hairstreak (C. dumetorum affinis) Quino checkerspot (Euphydryas editha quino) gray hairstreak (Strymon melinus pudica) chalcedon checkerspot (E. chalcedona chalcedona) Ladies/Admirals Leanira checkerspot (Thessalia leanira wrighti) California sister (Adelpha bredowii californica) Mylitta crescent (Phyciodes mylitta) Lorquin's admiral (Limenitis lorquini) Blues west coast lady (Vanessa annabella) western pygmy-blue (Brephidium exila) red admiral (V. atalanta rubria) western tailed blue (Everes amyntula) painted lady (V. cardui) southern blue (Glaucopsyche lygdamus australis) American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) **Swallowtails** marine blue (Leptotes marina) pale swallowtail (Papilio eurymedon) unidentified blue western tiger swallowtail (P. rutulus) Whites anise swallowtail (P. zelicaon) Sara orangetip (Anthocharis sara sara) Miscellaneous desert (Felder's) orangetip (A. cethura) monarch (Danaus plexippus) common California ringlet (Coenonympha californica) common buckeye (Junonia coenia grisea) cabbage white (Pieris rapae) mourning cloak (Nymphalis antiopa) checkered (common) white (Pontia protodice) Skippers spring white (P. sisymbrii) funereal duskywing (Erynnis funeralis)

mournful duskywing (Erynnis tristis)

white (common) checkered-skipper (Pyrgus albescens)

fiery skipper (Hylephila phyleus)

unidentified white

unidentified sulphur

Behr's metalmark (Apodemia mormo virgulti)

cloudless sulfur (Phoebus sennae marcellina)

Column Subtotal

Wright's metalmark (Calephelis wrighti)

orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe)

Metalmarks

Sulphurs

Column Subtotal

10

The Housey plants

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5
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00
a

Site Name:	Proctor Valley - Village 14 of Otay	Ranch	Site Visit No:	
Acres Survey	ad 12.7	Times	20.26 A Site Visit No.	_ ,
	ed 127 Survey	Time:	20.25 Acres per Hour:	6.
Other Survey	ors Present: G. Huffman	M. Di	cus	
		Field	2	
	Time (24 hr) Tem		Conditions	
Start	0915	perature ('F	Wind Speed (mph) Cloud Co	ver
	017	00	1-4 /0%	
End	1600	70.5	1-5 107	70
Start				
End				
Vegetation Co	ommunities Surveyed (inc. domina	nt spp.)		
				-
	Host Plants	Obs.	Nectar Plants	Obs.
lwarf plantain	(Plantago erecta)	1	popcorn flower (Cryptantha/Plagiobothrys spp.)	Obs.
	over (Castilleja exserta) C. denci flora	, 11	goldfields (Lasthenia spp.)	1
napdragon (A	ntirrhinum coulterianum)	1	goldenstar (Muilla spp.)	1
irds-beak (Co.	rdylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	1
voolly plantain	(Plantago patagonica)		onion (Allium spp.)	1
Chinese house	s (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	
			ground pink (Linanthus dianthiflorus)	1
		741	Bahiopsis lac : Pentavrea, Dic Cap	
	Butterfly Species	No.		N-
heckerspots		NO.	Butterfly Species Hairstreaks	No.
	(Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	+
	spot (C. gabbii)	1	brown elfin (Callophrys augustinus)	+
	pot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	11:
	kerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	1"
	spot (Thessalia leanira wrighti)		Ladies/Admirals	1
	(Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
lues		1	Lorquin's admiral (Limenitis lorquini)	
	blue (Brephidium exila)		west coast lady (Vanessa annabella)	1
	ue (Everes amyntula)		red admiral (V. atalanta rubria)	
	Glaucopsyche lygdamus australis)	1111	painted lady (V. cardui)	THE
	Hemiargus ceraunus gyas) ricia acmon acmon)		American (Virginia) lady (V. virginiensis)	
arine blue (Lep		11.	unidentified lady (Vanessa sp.)	
identified blue			Swallowtails	
hites		log l	pale swallowtail (Papilio eurymedon)	
	Anthocharis sara sara)	1	western tiger swallowtail (P. rutulus) anise swallowtail (P. zelicaon)	
	orangetip (A. cethura)	1	Miscellaneous	
	ia ringlet (Coenonympha californica)		monarch (Danaus plexippus)	
bbage white (F	The state of the s	1	common buckeye (Junonia coenia grisea)	
	mon) white (Pontia protodice)	1:	mourning cloak (Nymphalis antiopa)	
ring white (P. s			Skippers	
identified white			funereal duskywing (Erynnis funeralis)	7441
talmarks			mournful duskywing (Erynnis tristis)	
	k (Apodemia mormo virgulti) TH:	TH TH		
	ark (Calephelis wrighti)		white (common) checkered-skipper (Pyrgus albescens)	
lphurs			Other	
	Colias eurytheme)			
	urema nicippe)			
	Phoebus sennae marcellina)			
dentified sulph		12		
	Column Subtota	11477	Column Subtotal	14

Surveyor:	N	1ELANIE	DIGUS			Date:		6-2015	
Site Name:	Procto	or Valley – Village	14 of Otay Ranch				Site Visit No:	2	
Acres Surve	/ed	127	Survey Time:	0915-	1600 x3	Acres	per Hour:	5=10	6.27
Other Survey	ors Pre	esent: Jim,	ROCKS, IMARRES	THUFFER	W.				

		Field Condit	ions	
	Time (24 hr)	Temperature ('F)	Wind Speed (mph)	Cloud Cover
Start	0915	60	1-3	5
End	1600	70.5	1-5	10
Start				10
End				

Vegetation Communities Surveyed (inc. dominant spp.)

CHANISE CHARARRAL, CSS

Obs.	Nectar Plants	Obs.
X	popcorn flower (Cryptantha/Plagiohothrys spn.)	V
	goldfields (Lasthenia spp.)	×
		×
	onion (Allium spp.)	X
		_ ^
	ground pink (Linanthus dianthiflorus)	X
		popcorn flower (Cryptantha/Plagiobothrys spp.) goldfields (Lasthenia spp.) goldenstar (Muilla spp.) fiddleneck (Amsinckia menziesii var. intermedia) onion (Allium spp.) buckwheat (Eriogonum fasciculatum)

Butterfly Species	No.	Butterfly Species	No
Checkerspots		Hairstreaks	140
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	+
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	-
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	17
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	7
Leanira checkerspot (Tnessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phycicdes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	-
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	,
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	/
southern blue (Glaucopsyche lygdamus australis)	20	painted lady (V. cardui)	10
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	10
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	
marine blue (Leptotes marina)		Swallowtails	
unidentified blue		pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)	/	anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	1000
common California ringlet (Coenonympha californica)		monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
pring white (P. sisymbrii)		Skippers	_
inidentified white		funereal duskywing (Erynnis funeralis)	
/letalmarks		mournful duskywing (Erynnis tristis)	5
Behr's metalmark (Apodemia mormo virgulti)	30	fiery skipper (Hylephila phyleus)	
Vright's metalmark (Calephelis wrighti)		white (common) checkered-skipper ( <i>Pyrgus albescens</i> )	
ulphurs		Other	
range sulphur (Colias eurytheme)			
eepy orange (Eurema nicippe)			
oudless sulfur (Phoebus sennae marcellina)			
nidentified sulphur			
Column Subtotal	51	Column Subtotal	7 -
		Total	71

		heckers	pot Bu	itterfly Survey Form	1 1	
Surveyo	OF: GARRET HUFFMAN			Date: 2	126 15	
Site Nar	ne: Proctor Valley - Village 14 of Otay F	Ranch		Site \	/isit No: 2	
Acres S	urveyed 127 Survey	Time: Ly	75	20 25 Acres per l	lour Cato	12
						۵. ح
Other Si	urveyors Present: MELANIE	Dia	13,	DIM ROCKS		
	-					
		Field	Conditio	ons		
	Time (24 hr) Temp	erature ('F	=)	Wind Speed (mph)	Cloud Cov	ver
Start	0915	O		1-3	10%	
End		1.5		1-5	10%	
Start	700	1.)			1010	-
End						
Venetati	on Communities Surveyed (inc. dominar	nt onn l	-			
_						
CH	AMISE CHAPARRAL,	CSS				
		1				
chunef pla	Host Plants	Obs.		Nectar Plants		Obs.
	ntain (Plantago erecta) vl's clover (Castilleja exserta)	X		corn flower (Cryptantha/Plagio	bothrys spp.)	X
	on (Antirrhinum coulterianum)	X	_	fields (Lasthenia spp.)		1 *
	ik (Cordylanthus rigidus)	-		enstar ( <i>Muilla</i> spp.) eneck ( <i>Amsinckia menziesii</i> va	or intermedia)	-
	antain ( <i>Plantago patagonica</i> )		onio	n (Allium spp.)	ar. intermedia)	X
	houses (Collinsia spp.)			wheat (Eriogonum fasciculatu	m)	*
	X			nd pink (Linanthus dianthifloru		7
	Butterfly Species	Ma		2422		
Checkers		No.	Haira	Butterfly Specie treaks	S	No.
	patch (Chlosyne californica)		100000000000000000000000000000000000000	purple hairstreak (Atlides hale	2112 22 22 22 23	
	eckerspot (C. gabbii)	1		elfin (Callophrys augustinus)	sus corcorani)	-
	ckerspot (Euphydryas editha quino)			ole (perplexing) hairstreak (C.	dumetorum affinis)	
chalcedon	checkerspot (E. chalcedona chalcedona)			airstreak (Strymon melinus pu		
	eckerspot (Thessalia leanira wrighti)			s/Admirals		
	scent (Phyciodes mylitta)		Califo	rnia sister (Adelpha bredowii o	californica)	
Blues				n's admiral (Limenitis lorquini)		
	/gmy-blue (Brephidium exila)	-		coast lady (Vanessa annabella	3)	
	iled blue (Everes amyntula) lue (Glaucopsyche lygdamus australis)	-		miral (V. atalanta rubria)		
	olue (Hemiargus ceraunus gyas)	5		d lady (V. cardui)	.,	10
	e (Icaricia acmon acmon)			can (Virginia) lady (V. virginier tified lady (Vanessa sp.)	isis)	
	e (Leptotes marina)			owtails		
unidentified				wallowtail (Papilio eurymedon)		
Whites				n tiger swallowtail (P. rutulus)		
	getip (Anthocharis sara sara)	1		swallowtail (P. zelicaon)		
	der's) orangetip (A. cethura)			llaneous		
	alifornia ringlet (Coenonympha californica)			ch (Danaus plexippus)		7,7
	hite (Pieris rapae)	-		on buckeye (Junonia coenia g	risea)	
	(common) white (Pontia protodice)	1		ing cloak (Nymphalis antiopa)		
unidentified	e (P. sisymbrii)		Skippe			
Metalmark		-		al duskywing (Erynnis funeralis	s)	10
	almark (Apodemia mormo virgulti)	25	fien el	ful duskywing (Erynnis tristis) Lipper (Hylephila phyleus)	-	
	etalmark (Calephelis wrighti)	13		common) checkered-skipper (	Durque albaccan	
Sulphurs	, , , , , , , , , , , , , , , , , , , ,		Other	outside of the control of the contro	yrgus aibescens)	
orange sulp	ohur (Colias eurytheme)					
	ge (Eurema nicippe)					
	ulfur (Phoebus sennae marcellina)					
unidentified						
	Column Subtotal	32			Column Subtotal	11

Total

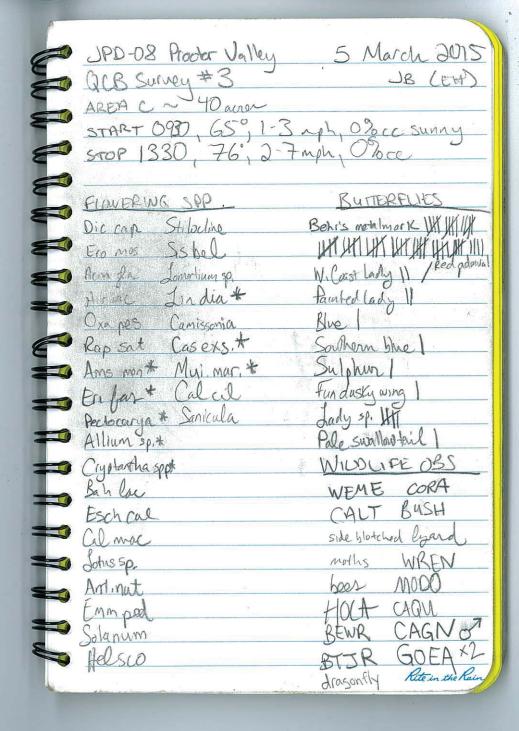
Surveyor:	Jasmine Bakker	r		Date:	3/5/2015	
Site Name:	Proctor Valley -	- Village 14 of Otay Ranch (JF	PD-08); Area C		Site Visit No: 3	
Acres Surve	eyed 40	Survey Time:	4 hours	Acres	per Hour: 10	
Other Surve	yors Present:	Erica Harris ~ Area A				
	•					

	Field Conditions					
	Time (24 hr) Temperature (°F) Wind Speed (mph) Cloud Cover					
Start	0930	65	1-3	0 %, clear & sunny		
End	1330	76	2-7	0 %, clear & sunny		
Start						
End						

Vegetation Communities Surveyed (inc. dominant spp.)
NNG, DCSS, CC, SMC

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X
purple owl's clover (Castilleja exserta)	X	goldfields (Lasthenia spp.)	
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	Х
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	Х
woolly plantain (Plantago patagonica)		onion (Allium spp.)	Х
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	Х
		ground pink (Linanthus dianthiflorus)	Х

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral ( <i>Limenitis lorquini</i> )	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	2
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	1
southern blue (Glaucopsyche lygdamus australis)	1	painted lady (V. cardui)	2
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	5
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	1	pale swallowtail (Papilio eurymedon)	1
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)		monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white ( <i>P. sisymbrii</i> )		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	1
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	54	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange ( <i>Eurema nicippe</i> )			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur	1		
Column Subtotal	57	Column Subtotal	12
		Total	69



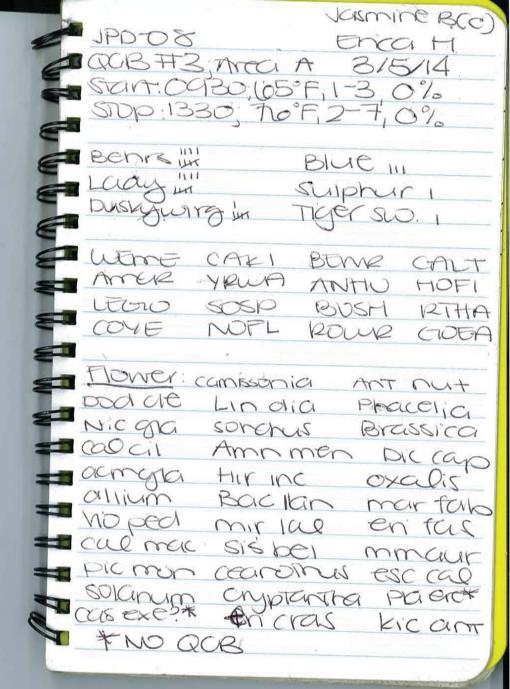
Surveyor:	Erica Harris			Date:	3/5/2015		
Site Name:	Proctor Valley -	- Village 14 of Otay Ranch (J	PD-08); Area A		Site Visit N	<b>o</b> : 3	
Acres Surve	eyed 45	Survey Time:	4 hours	Acres	per Hour:	11.25	
Other Surve	yors Present:	Jasmine Bakker ~ Area C					
	•						

	Field Conditions					
	Time (24 hr) Temperature (°F) Wind Speed (mph) Cloud Cover					
Start	0930	65	1-3	0 %, clear & sunny		
End	1330	76	2-7	0 %, clear & sunny		
Start						
End						

Vegetation Communities Surveyed (inc. dominant spp.)	
NNG, DCSS, CC, SMC	

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X
purple owl's clover (Castilleja exserta)	X	goldfields (Lasthenia spp.)	
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	Х
woolly plantain (Plantago patagonica)		onion (Allium spp.)	Х
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	Х
		ground pink (Linanthus dianthiflorus)	Х

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)		painted lady (V. cardui)	
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	9
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	3	pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	1
Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)		monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	6
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	9	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper ( <i>Pyrgus albescens</i> )	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange ( <i>Eurema nicippe</i> )			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur	1		
Column Subtotal	13	Column Subtotal	16
		Total	29



2015 Quino Checkerspot Butterfly Survey Form J. ROCKS Site Name: Proctor Valley - Village 14 of Otay Ranch (total Acres Surveyed 127 Survey Time: Acres per Hour: Other Surveyors Present: 6. Huffman **Field Conditions** Time (24 hr) Temperature ('F) Wind Speed (mph) Cloud Cover Start 0850 End 0-4 Start End Vegetation Communities Surveyed (inc. dominant spp.) Host Plants Obs. **Nectar Plants** Obs. dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleja exserta) goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) Lasthenia **Butterfly Species** No. **Butterfly Species** No. Checkerspots Hairstreaks California patch (Chlosyne californica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals Mylitta crescent (Phyciodes mylitta) California sister (Adelpha bredowii californica) Lorquin's admiral (Limenitis lorquini) west coast lady (Vanessa annabella) red admiral (V. atalanta rubria) painted lady (V. cardui) American (Virginia) lady (V. virginiensis) unidentified lady (Vanessa sp.) Swallowtails pale swallowtail (Papilio eurymedon) western tiger swallowtail (P. rutulus)

Blues western pygmy-blue (Brephidium exila) western tailed blue (Everes amyntula) southern blue (Glaucopsyche lygdamus australis) Edward's blue (Hemiargus ceraunus gyas) Acmon blue (Icaricia acmon acmon) marine blue (Leptotes marina) unidentified blue Whites Sara orangetip (Anthocharis sara sara) anise swallowtail (P. zelicaon) desert (Felder's) orangetip (A. cethura) Miscellaneous common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) checkered (common) white (Pontia protodice) mourning cloak (Nymphalis antiopa) spring white (P. sisymbrii) Skippers unidentified white funereal duskywing (Erynnis funeralis) Metalmarks mournful duskywing (Erynnis tristis) Behr's metalmark (Apodemia mormo virgulti) th) NI fiery skipper (Hylephila phyleus) Wright's metalmark (Calephelis wrighti) white (common) checkered-skipper (Pyrgus albescens) Sulphurs Other orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) unidentified sulphur Column Subtotal Column Subtotal Total

Striped Racer Horned Lizard

	2015	Quino Che	ckerspo	ot Butterfly Survey Form	
Surveyo	- GARRET LL.	f a mary		Date: 02/05/15	
Site Nam	De. Broder Allen Allen	A of Otay Bon		Date: 03/05/15  Site Visit No: 3  Acres per Hour: 5-10	
Acres C.	Troctor valley - village	14 Of Otay Ran	7	bes Assessed Hours 6-10	
Acres 5	Irveyed 120	_ Survey Tim	10:	Acres per Hour: 5-10	
Other Su	irveyors Present:	ROUL	2, 1	MELANIE DICUS	
	-				
			Field Co	onditions	
	Time (24 hr)	Temper	ature ('F)	Wind Speed (mph) Cloud Co	ver
Start	0930	62	)	2-4	
End	1530	76		D-7 Ø	
Start		7 4		02	
End					
Liiu					
Vegetati	ion Communities Surveyed (i	nc. dominant :	spp.)		
	AMISE CHAPARAL				
_ C [7]	MINIST CHARACEAL	, (>)			
L					
	Host Plants		Obs.	Nectar Plants	Obs.
dwarf pla	antain (Plantago erecta)		X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X
	wl's clover (Castilleja exserta)		*	goldfields (Lasthenia spp.)	-
	gon (Antirrhinum coulterianum)			goldenstar (Muilla spp.) fiddleneck (Amsinckia menziesii var. intermedia)	X
	ak (Cordylanthus rigidus)			onion (Allium spp.)	X
woolly plantain ( <i>Plantago patagonica</i> )  Chinese houses ( <i>Collinsia</i> spp.)				buckwheat (Eriogonum fasciculatum)	X
Cilliese	Houses (Commisia Spp.)			ground pink (Linanthus dianthiflorus)	X
					1
	D. Marilla Canadan	-	No.	Butterfly Species	No.
Checker	Butterfly Species		140.	Hairstreaks	
	a patch (Chlosyne californica)			great purple hairstreak (Atlides halesus corcorani)	-
Gabb's o	checkerspot (C. gabbii)		1	brown elfin (Callophrys augustinus)	2
Quino ch	neckerspot (Euphydryas editha	quino)		bramble (perplexing) hairstreak (C. dumetorum affinis) gray hairstreak (Strymon melinus pudica)	
chalcedo	on checkerspot (E. chalcedona	chalcedona)		Ladies/Admirals	
Leanira	checkerspot (Thessalia leanira	wngnu)		California sister (Adelpha bredowii californica)	
	rescent (Phyciodes mylitta)			Lorquin's admiral (Limenitis lorquini)	
Blues	pygmy-blue (Brephidium exila)			west coast lady (Vanessa annabella)	5
western	tailed blue (Everes amyntula)			red admiral (V. atalanta rubria)	25
southern	blue (Glaucopsyche lygdamus	australis)	30	painted lady (V. cardui) American (Virginia) lady (V. virginiensis)	
Edward's	s blue (Hemiargus ceraunus gyt	as)	-	unidentified lady (Vanessa sp.)	
Acmon b	lue (Icaricia acmon acmon)			Swallowtails	1
	lue (Leptotes marina)			pale swallowtail (Papilio eurymedon)	1
unidentifi	ed blue			western tiger swallowtail (P. rutulus)	-
Whites	ngetip (Anthocharis sara sara)			anise swallowtail (P. zelicaon)	
- II I-) arongotin (A Celliula)			2	Miscellaneous monarch (Daneus plexippus)	
common California ringlet (Coendrympha delirettian)				common buckeye (Junonia coenia grisea)	
	bito (Diaris range)			mourning cloak (Nymphalis antiopa)	
checkere	d (common) white (Pontia prote	)dice)		Skippers	125
spring wh	nite (P. sisymbni)			funereal duskywing (Erynnis funeralis)	25
unidentific	ed white			mournful duskywing (Erynnis tristis)	+
Metalma	stalmark (Apodemia mornio vii)	gulti)	2100	fiery skipper (Hylephila phyleus) white (common) checkered-skipper (Pyrgus albescens	()
Benr's me	metalmark (Calephelis wrighti)			Other	1
O. Inhurs				Other	
arange SII	Inhur (Colias eurytrieffie)		- 700		
	TOTAL (FURNING NICIDAE)	Was)			
cloudless	sulfur (Phoebus sennae marce	niina)		Column Subtot	1 40
	70000 CAT \$ 000 CAT			O-Lump Cubtot	ALL TO

unidentified sulphur

Column Subtotal

Column Subtotal

Total 19

Surveyor: MELANIE DICUS	Date:	03-05-2015	
Site Name: Proctor Valley - Village 14 of Otay F	anch Si	ite Visit No: 3	
Acres Surveyed /ZO Survey		er Hour: 6-10	
Other Surveyors Present: CARLET HUF	Fran		
lan com s			

	Field Conditions						
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover			
Start	0850	62	2-4	Ø			
End	1530	76	0-2	Ø			
Start							
End		T					

Vegetation Communities Surveyed (inc. dominant spp.)

CHAMISE CHAPARRAL, LARSSLAND, CSS

er (Cryptantha/Plagiobothrys spp.)
(Cryptantilar lagiobodilys spp.)
sthenia spp.)
fuilla spp.)
msinckia menziesii var. intermedia)
spp.) X
Eriogonum fasciculatum)
Linanthus dianthiflorus)
Linanulus dianuliilorus)
(A m

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	1-1-1-1
California patch (Chlosyne californica)	One of the second	great purple hairstreak (Atlides halesus corcorani)	- N-010-
Gabb's checkerspot (C. gabbii)	/	brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	4
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)	300000000000000000000000000000000000000	Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	7
southern blue (Glaucopsyche lygdamus australis)	10	painted lady (V. cardui)	8
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	laures -	pale swallowtail (Papilio eurymedon)	A
Whites		western tiger swallowtail (P. rutulus)	7
Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)	*
desert (Felder's) orangetip (A. cethura)	111111111111111111111111111111111111111	Miscellaneous	
common California ringlet (Coenonympha californica)	Z	monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	_
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	10
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	105	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Celephelis wrighti)		white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange (Eurema nicippe)			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur			
Column Subtotal	118	Column Subtotal	211
20.0	1.0	Total	140

**Field Conditions** Time (24 hr) Temperature ('F) Wind Speed (mph) Cloud Cover 8:30 Start 5:30 End Start End Vegetation Communities Surveyed (inc. dominant spp.) Chamise chaparrol, non-native grassland (Acm.gla. Obs. **Host Plants** Obs. **Nectar Plants** dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleja exserta) dersiflora goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) **Butterfly Species** No. **Butterfly Species** No. Checkerspots Hairstreaks California patch (Chlosyne californica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) gray hairstreak (Strymon melinus pudica) chalcedon checkerspot (E. chalcedona chalcedona) Leanira checkerspot (Thessalia leanira wrighti) Ladies/Admirals Mylitta crescent (Phyciodes mylitta) California sister (Adelpha bredowii californica) Blues Lorquin's admiral (Limenitis lorquini) western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) western tailed blue (Everes amyntula) red admiral (V. atalanta rubria) southern blue (Glaucopsyche lygdamus australis) 5 painted lady (V. cardui) 4 American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) 10 marine blue (Leptotes marina) **Swallowtails** unidentified blue 0 pale swallowtail (Papilio eurymedon) Whites western tiger swallowtail (P. rutulus) Sara orangetip (Anthocharis sara sara) anise swallowtail (P. zelicaon) desert (Felder's) orangetip (A. cethura) Miscellaneous common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) checkered (common) white (Pontia protodice) mourning cloak (Nymphalis antiopa) spring white (P. sisymbrii) Skippers unidentified white funereal duskywing (Erynnis funeralis) 16 Metalmarks mournful duskywing (Erynnis tristis) Behr's metalmark (Apodemia mormo virgulti) 44 fiery skipper (Hylephila phyleus) white (common) checkered-skipper (Pyrgus albescens) Wright's metalmark (Calephelis wrighti) Other Sulphurs 2 orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) unidentified sulphur Column Subtotal 58 Column Subtotal Total

2015 Quino Checkerspot Butterfly Survey Form

Travis cooper, Victor Novick

Site Visit No: 3

Acres per Hour: (0 9

Surveyor:

**Acres Surveyed** 

Other Surveyors Present:

Site Name: Proctor Valley - Village 14 of Otay Ranch

145 Survey Time:

Surveyo	r: Travis Cooper		ckersp	ot Butterfly S	-	3/5/15	
	ne: Proctor Valley – Village 14		h	F.G.H		•	
A oron Si	incored \\iE	Survoy Tim	20:	71 4	Agree per l	lour ( a	
Acres St	urveyed <u>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</u>	Survey IIII	le.	TNS	Acres per r	10ur	
Other Su	rveyors Present:	or NOVIK	, Alic	ICHILL			
			Field C	onditions			
1	Time (24 hr)	Temper	ature (°F)		Speed (mph)	Cloud Cove	or
Ctort		remper	ature ( 1 )	Willo		Olodd Cove	71
Start	0830	6	3		0-1	0/4	
End	1530	7	70		0-3	09	
Start							
End							
Vegetatio	on Communities Surveyed (inc	. dominant s	pp.)				
***************************************	Chamile chap NA	16 ( Brown	S, Acmi	sion)			
	II4 Bl1-		Ohe		No stan Disert		Oh-
durant -1-	Host Plants ntain (Plantago erecta)		Obs.	noncorn flavor	Nectar Plants		Obs
		<i>(</i> 1)	X		(Cryptantha/Plagio	obourrys spp.)	X
	vl's clover (Castilleja exserta) de on (Antirrhinum coulterianum)	nsitiura	X	goldfields (Las goldenstar (Mu			X
· · · · · ·	k (Cordylanthus rigidus)				ilila spp.) Isinckia menziesii v	ar intermedia)	1
	antain ( <i>Plantago patagonica</i> )			onion (Allium s		ai. intermedia)	X
	houses (Collinsia spp.)				iogonum fasciculati	um)	X
Chinese	riouses (Collinsia spp.)				inanthus dianthiflor		X
				ground plink (E.	manunus dianumior	43)	1
	Cox			1			
	Butterfly Species		No.		Butterfly Speci	es	No.
Checkers	pots			Hairstreaks			
California	patch (Chlosyne californica)			great purple hai	rstreak ( <i>Atlides hal</i>	esus corcorani)	
Gabb's ch	eckerspot ( <i>C. gabbii</i> )			brown elfin (Cai	lophrys augustinus	)	
Quino che	eckerspot ( <i>Euphydryas editha qu</i>	ino)		bramble (perple	xing) hairstreak (C	. dumetorum affinis)	
	n checkerspot ( <i>E. chalcedona ch</i>				(Strymon melinus p	oudica)	
	neckerspot ( <i>Thessalia leanira wr</i>	ighti)		Ladies/Admira			
	escent (Phyciodes mylitta)				(Adelpha bredowii		
Blues					al ( <i>Limenitis lorquir</i>		
	ygmy-blue (Brephidium exila)				(Vanessa annabe	lla)	
	ailed blue (Everes amyntula)	- 4 - 1 - N P F	1	red admiral (V.		47	0
	olue (Glaucopsyche lygdamus a		6	painted lady (V.		<u> </u>	8
	blue (Hemiargus ceraunus gyas	)			nia) lady ( <i>V. virgini</i>	ensis)	W
	ue (Icaricia acmon acmon)			unidentified lady	( variessa sp.)		O
unidentifie	ue (Leptotes marina)	~ ~	4		(Papilio eurymedo	n)	
Whites	ed blue				vallowtail (P. rutulu		
	getip (Anthocharis sara sara)		1	anise swallowta		3)	
	elder's) orangetip (A. cethura)	4	3	Miscellaneous	ii (r . zenedori)		
	California ringlet (Coenonympha	californica)	1	monarch (Dana	us plexippus)		
***************************************	white (Pieris rapae)		1		ye (Junonia coenia	grisea)	
	d (common) white (Pontia protod	ice)			(Nymphalis antiopa		
	ite (P. sisymbrii)			Skippers		4	
unidentifie					ving (Erynnis funer	alis)	10
Metalmar	200				wing (Erynnis tristis		
	talmark (Apodemia mormo virgu	ulti) N D D	44		ylephila phyleus)		
	netalmark (Calephelis wrighti)	-	* 1			r ( <i>Pyrgus albescens</i> )	
Sulphurs				Other	• F		L I FIG
	lphur (Colias eurytheme)		1				
	inge (Eurema nicippe)						
cloudless	sulfur ( <i>Phoebus sennae marcell</i> i	ina)	Jeromen				
unidentifie							
	Colu	mn Subtotal	58			Column Subtotal	28

SALMUN CLAME CALME CALME CUTCA EROSPO. GUGCHE PERIAB OXAPES AMTNUT SILLEN CALCIL SISBEL DICCAD

CRYSPO. SOLPAR MIRLAG ALMOLAG

2015 Quino Checkerspot Butterfly Survey Form 1)31.1 Surveyor: Site Visit No: Site Name: Proctor Valley - Village 14 of Otay Ranch Acres per Hour: Survey Time: Acres Surveyed Hill, Traves cooper Other Surveyors Present: Field Conditions Cloud Cover Wind Speed (mph) Temperature (°F) Time (24 hr) Start End Start End Vegetation Communities Surveyed (inc. dominant spp.) G- Chamse chap Nectar Plants Obs. popcorn flower (Cryptantha/Plagiobothrys spp.) **Host Plants** dwarf plantain (Plantago erecta) goldfields (Lasthenia spp.) purple owl's clover (Castilleja exserta) goldenstar (Muilla spp.) snapdragon (Antirrhinum coulterianum) fiddleneck (Amsinckia menziesii var. intermedia) birds-beak (Cordylanthus rigidus) onion (Allium spp.) woolly plantain (Plantago patagonica) buckwheat (Eriogonum fasciculatum) Chinese houses (Collinsia spp.) ground pink (Linanthus dianthiflorus) No. **Butterfly Species** No. **Butterfly Species** Hairstreaks great purple hairstreak (Atlides halesus corcorani) Checkerspots California patch (Chlosyne californica) brown elfin (Callophrys augustinus) bramble (perplexing) hairstreak (C. dumetorum affinis) Gabb's checkerspot (C. gabbii) Quino checkerspot (Euphydryas editha quino) gray hairstreak (Strymon melinus pudica) chalcedon checkerspot (E. chalcedona chalcedona) Ladies/Admirals Leanira checkerspot (Thessalia leanira wrighti) California sister (Adelpha bredowii californica) Mylitta crescent (Phyciodes mylitta) Lorquin's admiral (Limenitis lorquini) west coast lady (Vanessa annabella) Blues western pygmy-blue (Brephidium exila) red admiral (V. atalanta rubria) western tailed blue (Everes amyntula) painted lady (V. cardui) southern blue (Glaucopsyche lygdamus australis) American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) Swallowtails marine blue (Leptotes marina) pale swallowtail (Papilio eurymedon) western tiger swallowtail (P. rutulus) unidentified blue anise swallowtail (P. zelicaon) Whites Sara orangetip (Anthocharis sara sara) Miscellaneous desert (Felder's) orangetip (A. cethura) monarch (Danaus plexippus) common California ringlet (Coenonympha californica) common buckeye (Junonia coenia grisea) cabbage white (Pieris rapae) mourning cloak (Nymphalis antiopa) checkered (common) white (Pontia protodice) Skippers UNI spring white (P. sisymbrii) funereal duskywing (Erynnis funeralis) unidentified white mournful duskywing (Erynnis tristis) fiery skipper (Hylephila phyleus) Metalmarks Behr's metalmark (Apodemia mormo virgulti) white (common) checkered-skipper (Pyrgus albescens) Wright's metalmark (Calephelis wrighti) Other Sulphurs orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) Column Subtotal unidentified sulphur Column Subtotal Total

ANT OUT COMMINGEN

Be hrz

CAL. CIL. Phacella cicutana Mimulus.
Laphanus Phacella ciau
Lathynus vesttus Camissenia Lupinus Sp. 1886. Andrew Miraballs Cal. DIC. GAP.
GAS. GA.
SEL. FAS. Erachum spp. Firstantine ACIT. CIF.

Surveyor	Micia Hill	eckersp	ot Butterfly Survey Form Date: 3/0/15	
	e: Proctor Valley – Village 14 of Otay Ran	ch	J, K, M Site Visit No: 3	
Acres Su	.11	me:		2
	10		t to the second	_
Otner Su	rveyors Present: Waves Coc	pays	LCACI TOUVICE	
		Field Co	onditions	
	Time (24 hr) Tempe	rature ('F)	Wind Speed (mph) Cloud Cove	er
Start	8:15	03	0-3 0%	1
End	19:15 %	7_	1-5 0%	
Start	7.70		0 000	
End				
Liiu				
Vegetatio	on Communities Surveyed (inc. dominant	spp.)	hamse chaparrol, distrubed	
C55	(ART CAL, SRI SAS, A	CM.6	(A), non-native grassiand	4 1
			,	
	Host Plants	Obs.	Nectar Plants	Obs.
	ntain (Plantago erecta)	V	popcorn flower (Cryptantha/Plagiobothrys spp.)	_/
	I's clover (Castilleja exacta) CENSISTOVA	V	goldfields (Lasthenia spp.)	~
	on (Antirrhinum coulterianum) k (Cordylanthus rigidus)		goldenstar (Muilla spp.) fiddleneck (Amsinckia menziesii var. intermedia)	~
	ntain ( <i>Plantago patagonica</i> )	-	onion (Allium spp.)	1
	nouses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	-/
	(Common spp.)		ground pink (Linanthus dianthiflorus)	~
	Butterfly Species	No.	Butterfly Species	No.
Checkers			Hairstreaks	
California patch (Chlosyne californica)		fin.	great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot ( <i>C. gabbii</i> )  Quino checkerspot ( <i>Euphydryas editha quino</i> )		0	brown elfin (Callophrys augustinus)	0
	checkerspot (E. chalcedona chalcedona)		bramble (perplexing) hairstreak (C. dumetorum affinis) gray hairstreak (Strymon melinus pudica)	2
	eckerspot (Thessalia leanira wrighti)		Ladies/Admirals	
	scent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues			Lorquin's admiral (Limenitis lorquini)	
	gmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
	iled blue (Everes amyntula)		red admiral (V. atalanta rubria)	- 11
	lue (Glaucopsyche lygdamus australis)		painted lady (V. cardui)	4
	olue (Hemiargus ceraunus gyas) ue (Icaricia acmon acmon)		American (Virginia) lady (V. virginiensis) unidentified lady (Vanessa sp.)	11
	e (Leptotes marina)		Swallowtails	- 11
unidentifie		12	TO THE PROPERTY OF THE PROPERT	
Whites			western tiger swallowtail (P. rutulus)	
	getip (Anthocharis sara sara)	2	anise swallowtail (P. zelicaon)	1
	Ider's) orangetip (A. cethura)	1	Miscellaneous	
	alifornia ringlet (Coenonympha californica)	7	monarch (Danaus plexippus) common buckeye (Junonia coenia grisea)	
	/hite (Pieris rapae) (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
	te (P. sisymbrii)		Skippers -	
unidentifie			funereal duskywing (Erynnis funeralis)	13
Metalmari	KS		mournful duskywing (Erynnis tristis)	
	talmark (Apodemia mormo virgulti)	48	fiery skipper (Hylephila phyleus)	
	etalmark (Calephelis wrighti)	-	white (common) checkered-skipper ( <i>Pyrgus albescens</i> )	
Sulphurs	phus (Calina augusta aug		Other Shared Discour	0
	phur (Colias eurytheme) nge (Eurema nicippe)		Strated Queen	
	sulfur (Phoebus sennae marcellina)			
unidentified				
	Column Subtotal	76	Column Subtotal	33
		-		1.20

Surveyor:	TPAVIS COPER  : Proctor Valley – Village 14 of Otay Rand veyed 11 Survey Tir veyors Present: ALCIA HILL	161	Date:	16/15	
Site Name	: Proctor Valley - Village 14 of Otay Rand	ch	K,J,M Site Visi	it No:3	
Acres Sur	veyed 1/1 Survey Tir	ne:	6h/s Acres per Hou	ır: 6.	
Other Surv	vevors Present: ALICIA HILL	1/10	TOO LUNG	-	
Other Cur	A TEN TO STATE OF THE PARTY OF	, 010	100	MANUS TRACTOR - 1	
		Field C	onditions		
	Time (24 hr) Temper	rature (°F	Wind Speed (mph)	Cloud Cove	er
Start	0818 63	)	0-3	6%	
End	1415 92	9	2 5	O i	
Start					
End					
EIIU					
Vegetation	Communities Surveyed (inc. dominant	spp.)		ما الما الما الما الما الما الما الما ا	
		,			
	ramise Chap. C55-0-sturned	(Era	goram, Acmofun)		
N	Was (Fastern Boymus)				
	Host Plants	Obs.	Nectar Plants		06
dwarf plant	ain (Plantago erecta)	Obs.	popcorn flower (Cryptantha/Plagiobo	thrue can \	Obs
	s clover (Castilleja exserta)		goldfields (Lasthenia spp.)	unys spp.)	X
	n (Antirrhinum coulterianum)		goldenstar (Muilla spp.)		2
	(Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var.	intermedia)	X
	tain ( <i>Plantago patagonica</i> )		onion (Allium spp.)	,	χ
Chinese ho	ouses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	)	X
Catil	leja densiflora	X	ground pink (Linanthus dianthiflorus)		X
	J				
	Butterfly Species	No.	Butterfly Species		No.
Checkersp		Hairstreaks			NO.
	atch (Chlosyne californica)		great purple hairstreak (Atlides halesu	is corcorani)	
			brown elfin (Callophrys augustinus)		
	kerspot (Euphydryas editha quino)	123	bramble (perplexing) hairstreak (C. dumetorum affini		
	checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pud		
Leanira che	ckerspot (Thessalia leanira wrighti)		Ladies/Admirals		
Mylitta cres	cent ( <i>Phyciodes mylitta</i> )		California sister (Adelpha bredowii cal	lifornica)	
Blues			Lorquin's admiral (Limenitis lorquini)		
	gmy-blue ( <i>Brephidium exila</i> )		west coast lady (Vanessa annabella)		
	ed blue (Everes amyntula)	-	red admiral (V. atalanta rubria)		,
	ue (Glaucopsyche lygdamus australis)	7	painted lady (V. cardui)	:-)	6
	ue (Hemiargus ceraunus gyas) (Icaricia acmon acmon)		American (Virginia) lady ( <i>V. virginiens</i> unidentified lady ( <i>Vanessa</i> sp.)	is)	( )
	(Leptotes marina)	10	Swallowtails		14
unidentified		16	pale swallowtail (Papilio eurymedon)		
Whites			western tiger swallowtail (P. rutulus)		
	etip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)		
	ler's) orangetip (A. cethura)		Miscellaneous		
	lifornia ringlet (Coenonympha californica)	11	monarch (Danaus plexippus)		
cabbage wh	nite ( <i>Pieris rapae</i> )	1	common buckeye (Junonia coenia gri	sea)	
checkered (	common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)		
	e (P. sisymbrii)		Skippers	4	
unidentified			funereal duskywing (Erynnis funeralis	)	q
Metalmarks			mournful duskywing (Erynnis tristis)		
	Ilmark (Apodemia mormo virgulti)	62	fiery skipper (Hylephila phyleus)	Duration of the service	
	talmark (Calephelis wrighti)	==7//===	white (common) checkered-skipper (F	yrgus aibescens)	
Sulphurs	hur (Colias eurytheme)				9 8
	ge (Eurema nicippe)		Queen		*
	ulfur ( <i>Phoebus sennae marcellina</i> )				
unidentified		1			
	Column Subtotal	98		Column Subtotal	27

Total

130

SOLPER CAMSPP. DICCAP
MITTEL GROSP. HERLING
MIRLAR LONSUTS RAPSAT
AMOLIA OXXCAL SYSTEM
SALVAL SILLAR PERSONERS

ARRAIL, J, M 2015 Quino Checkerspot Butterfly Survey Form Victor NOU.16 Site Visit No: Surveyor: Site Name: Proctor Valley - Village 14 of Otay Ranch Acres per Hour: Survey Time: Acres Surveyed Other Surveyors Present: Alica Hill, Travis cooper **Field Conditions** Cloud Cover Wind Speed (mph) Temperature (°F) Time (24 hr) 0815 Start End Start End Vegetation Communities Surveyed (inc. dominant spp.) J-7 chumbe chap Artimus, ERIE Obs. **Nectar Plants** Obs popcorn flower (Cryptantha/Plagiobothrys spp.) Host Plants dwarf plantain (Plantago erecta) goldfields (Lasthenia spp.) purple owl's clover (Castilleja exserta) goldenstar (Muilla spp.) snapdragon (Antirrhinum coulterianum) fiddleneck (Amsinckia menziesii var. intermedia) birds-beak (Cordylanthus rigidus) onion (Allium spp.) woolly plantain (Plantago patagonica) buckwheat (Eriogonum fasciculatum) Chinese houses (Collinsia spp.) ground pink (Linanthus dianthiflorus) No. **Bufterfly Species** No. **Butterfly Species** Hairstreaks great purple hairstreak (Atlides halesus corcorani) Checkerspots California patch (Chlosyne californica) brown elfin (Callophrys augustinus) bramble (perplexing) hairstreak (C. dumetorum affinis) Gabb's checkerspot (C. gabbii) Quino checkerspot (Euphydryas editha quino) gray hairstreak (Strymon melinus pudica) chalcedon checkerspot (E. chalcedona chalcedona) Ladies/Admirals Leanira checkerspot (Thessalia leanira wrighti) California sister (Adelpha bredowii californica) Mylitta crescent (Phyciodes mylitta) Lorquin's admiral (Limenitis lorquini) west coast lady (Vanessa annabella) Blues western pygmy-blue (Brephidium exila) red admiral (V. atalanta rubria) western tailed blue (Everes amyntula) painted lady (V. cardui) southern blue (Glaucopsyche lygdamus australis) American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) JH LH LA unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) Swallowtails pale swallowtail (Papilio eurymedon) marine blue (Leptotes marina) HI western tiger swallowtail (P. rutulus) unidentified blue anise swallowtail (P. zelicaon) Whites Sara orangetip (Anthocharis sara sara) Miscellaneous desert (Felder's) orangetip (A. cethura) monarch (Danaus plexippus) common California ringlet (Coenonympha californica) common buckeye (Junonia coenia grisea) cabbage white (Pieris rapae) mourning cloak (Nymphalis antiopa) checkered (common) white (Pontia protodice) Skippers funereal duskywing (Erynnis funeralis) spring white (P. sisymbrii) mournful duskywing (Erynnis tristis) unidentified white fiery skipper (Hylephila phyleus) Behr's metalmark (Apodemia mormo virgulti) white (common) checkered-skipper (Pyrgus albescens) WHIT HITUMIN Wright's metalmark (Calephelis wrighti) Other CA RAYIEY Sulphurs orange sulphur (Colias eurytheme) sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) Column Subtotal unidentified sulphur Column Subtotal Total

Behrs Will

	TRAVIS O			Date: Site V		
				6h/5 Acres per H	our:	
Other Sur	veyors Present	: Chamile Chap	>,	Management Control of the Control of		
		NNG.	Notice 6	7 th Xland		
		/				
	T: /0.			onditions	0, 10	
	Time (24		erature (°F	Wind Speed (mph)	Cloud Cove	er
Start	0745		610	0-1	0!	
End	1345		86"	1-5 m/h	0%	
Start	*					
End	·					
Lite						
Vegetation	Communities	Surveyed (inc. dominar	t spp.)			
-						
	Chans	c Chap. MNG,	NG, DC	. 55	the state of the s	
	Host F	Plants	Obs.	Nectar Plants		Obs
dwarf plant	ain ( <i>Plantago ei</i>		0.00.	popcorn flower (Cryptantha/Plagio		V
	s clover (Castille			goldfields (Lasthenia spp.)	эсинус орр.)	X
· · · · · · · · · · · · · · · · · · ·	n (Antirrhinum c			goldenstar (Muilla spp.)		X
	(Cordylanthus r			fiddleneck (Amsinckia menziesii va	ar. intermedia)	V
	itain ( <i>Plantago</i> p	<del>-</del>		onion (Allium spp.)	,	1
	ouses (Collinsia			buckwheat (Eriogonum fasciculatu	ım)	X
	leja densit		1 ×	ground pink (Linanthus dianthifloru		X
	-)					
			1			
01	Butterfly	Species	No.	Butterfly Specie	)S	No
Checkersp		(ifi)		Hairstreaks		
	atch (Chlosyne			great purple hairstreak (Atlides hale brown elfin (Callophrys augustinus)		8
	ckerspot (C. gal	dryas editha quino)		bramble (perplexing) hairstreak (C.		1
		chalcedona chalcedona)		gray hairstreak (Strymon melinus p		
		salia leanira wrighti)		Ladies/Admirals	uuicaj	
	cent (Phyciodes			California sister (Adelpha bredowii	californica\	11.00
Blues	cent (r myeneded	mynta)		Lorquin's admiral ( <i>Limenitis lorquin</i>		
	my-blue (Breph	nidium exila)		west coast lady (Vanessa annabel		
	ed blue (Everes			red admiral (V. atalanta rubria)		
		he lygdamus australis) 🖁	4	painted lady (V. cardui)		2
	ue (Hemiargus			American (Virginia) lady (V. virginia	nsis)	
Acmon blue	(Icaricia acmor	n acmon)		unidentified lady (Vanessa sp.)	,	10
marine blue	(Leptotes marii	na)		Swallowtails		
unidentified	blue		10	pale swallowtail (Papilio eurymedor	7)	
Whites				western tiger swallowtail (P. rutulus	s)	
Sara orange	etip (Anthocharis	s sara sara)		anise swallowtail (P. zelicaon)		1
	der's) orangetip			Miscellaneous		C_
		Coenonympha californica)	5	monarch (Danaus plexippus)		
	nite ( <i>Pieris rapae</i>			common buckeye (Junonia coenia		
		(Pontia protodice)		mourning cloak (Nymphalis antiopa	)	
	(P. sisymbrii)			Skippers	·	-
unidentified				funereal duskywing (Erynnis funera		6
Metalmarks			12	mournful duskywing (Erynnis tristis)	)	
		ia mormo virgulti)	67	fiery skipper (Hylephila phyleus)	(Duranc alba	
	talmark (Caleph	iens wrighti)		white (common) checkered-skipper	(ryrgus aibescens)	
Sulphurs	hur (Calias sur	thoma\	1	Other		<b></b>
	hur (Colias eury		1			
	ge ( <i>Eurema nici</i> Ifur ( <i>Phoebus</i> s	ppe) ennae marcellina)				
unidentified		ormae marcenna)	1			<u> </u>
ar no critine G	Saipriai	Column Subtot	al 88		Column Subtotal	21
		Joidinii Gastou	0.0		Total	000
					1001	

SOLPAR SAWAP SAHLAL
MOTEN MOTED PENTUR
ACTICAL CALMAD
SOLCAR
CRODIUM SISTER PERTUR

Chaparral fed vine - wotherns

Total

	Surveyor: Victor Novik	eckerspo	t Butterfly Survey Form  Date: 3/	2/15	AL,
	Site Name: Proctor Valley - Village 14 of Otay Rand	ch	Site Vis	it No: 3	
	Acres Surveyed 93 Survey Til		Acres per Hou	Ir: 7,7	9
	74.13	-			
1	Other Surveyors Present:	cooper			
2 2	<u> </u>	D47			
2 2 -		Field Co	nditions		
D -	Time (24 hr) Tempe	rature (°F)	Wind Speed (mph)	Cloud Cove	r
> 5	1 7 1		2 -1	AR.	
2	Start 0745 Ca	261	0-1	-Q	
23	End 345 86	:	1-5	0	
2 1 2	Start				
3	End				
ર્ક વ્રા∟	Elid				
301	Vegetation Communities Surveyed (inc. dominant	snn )			
-	vegetation communities surveyed (inc. dominant	3pp./	· · · · · ·		
	L/I NNG, NG,	UCS)	Chamise Chap		
_	. , , ,	,			
2 L					
7	Host Plants	Obs.	Nectar Plants		Obs.
7	dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobo	othrys spp.)	X
	purple owl's clover (Castilleja exserta)		goldfields (Lasthenia spp.)		1
0	snapdragon (Antirrhinum coulterianum)	1	goldenstar (Muilla spp.)		X
_	birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var.	intermedia)	X
3	woolly plantain (Plantago patagonica)		onion (Allium spp.)		<i>S</i>
	Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum		X
2			ground pink (Linanthus dianthiflorus	)	A
-					
Г	D. Marilla Species	No.	Butterfly Species		No.
-	Butterfly Species	140.	Hairstreaks		
	Checkerspots California patch (Chlosyne californica)		great purple hairstreak (Atlides hales	us corcorani)	
	Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)		À
	Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. d	lumetorum affinis)	1
	chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pud	200 Aug 1997 / 1	,
	Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals		
- 01-	Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii ca	alifornica)	
F	Blues		Lorquin's admiral (Limenitis lorquini)		
+	western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella	)	
	western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)		
	southern blue (Glaucopsyche lygdamus australis)	11/4	painted lady (V. cardui)		¥ 1
	Edward's blue (Hemiargus ceraunus gyas)	1M1	American (Virginia) lady (V. virginien	sis)	
- 1	Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)		LANT
-	marine blue (Leptotes marina)		Swallowtails		.,,
-	unidentified blue	THE WIT	pale swallowtail (Papilio eurymedon)		
H	Whites	26 6 600	western tiger swallowtail (P. rutulus)		
ŀ	Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)		1
- 1	desert (Felder's) orangetip (A. cethura)		Miscellaneous		-
	common California ringlet (Coenonympha californica)	11117	monarch (Danaus plexippus)		
ŀ	cabbage white (Pieris rapae)	Yes III	common buckeye (Junonia coenia gi	risea)	
ŀ	checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)		
1	spring white (P. sisymbrii)		Skippers		
Ì	unidentified white		funereal duskywing (Erynnis funerali	s)	#
	Metalmarks	/	mournful duskywing (Erynnis tristis)		7. 7
M	Behr's metalmark (Apodemia mormo virgulti)	TUNIUT	fiery skipper (Hylephila phyleus)		
M	Wright's metalmark (Calephelis wrighti)	1011/11	white (common) checkered-skipper (	Pyrgus albescens)	
	Sulphurs		Other		
	orange sulphur (Colias eurytheme)				
+	sleepy orange (Eurema nicippe)				
	cloudless sulfur (Phoebus sennae marcellina)				
	unidentified sulphur	1			
	0.10.1444	1 1912		Column Subtotal	7.1

10 + 20

Surveyor:	Jasmine Bakker	•		Date:	3/9/2015		
Site Name:	Proctor Valley -	- Village 14 of Otay Ranch (J	PD-08); Area A		Site Visit N	o: 4	
Acres Surve	eyed 45	Survey Time:	4 hours 45 min	Acres	per Hour:	9.47	
Other Surve	yors Present:	Stacy Nigro (with supervise	d individual Ben Rosenbaur	n) ~ Area	С		
	•						

	Field Conditions						
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover			
Start	1015	63	0-2	0 %, clear & sunny			
End	1500	71	2-6	10 %, sunny with haze			
Start							
End							

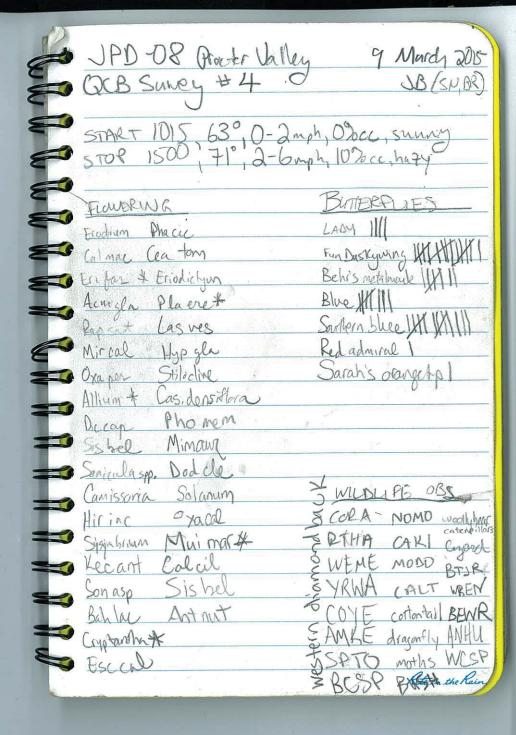
#### Vegetation Communities Surveyed (inc. dominant spp.)

NNG (Bromus, Avena), DCSS (Artemisia californica, Eriogonum fasciculatum, Salvia apiana, Acmispon glaber),

SMC (Ceanothus tomentosus, Adenostoma fasciculatum, Xylococcus bicolor, Rhamnus crocea)

Host Plants	Obs.	Nectar Plants	Obs.	
dwarf plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	X	
purple owl's clover (Castilleja exserta)		goldfields (Lasthenia spp.)		
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	Х	
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)		
woolly plantain (Plantago patagonica)		onion (Allium spp.)	Х	
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	Х	
		ground pink (Linanthus dianthiflorus)		

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral ( <i>Limenitis lorquini</i> )	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	1
southern blue (Glaucopsyche lygdamus australis)	13	painted lady (V. cardui)	
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	4
marine blue (Leptotes marina)		Swallowtails	
unidentified blue		pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)	1	anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)		monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	16
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	7	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange (Eurema nicippe)			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur			
Column Subtotal	21	Column Subtotal	21
		Total	42



Surveyor:	Stacy Nigro			Date: 3/	9/2015	
Site Name:	Proctor Valley	<ul> <li>Village 14 of Otay Ranch (J</li> </ul>	PD-08); Area C	Site	Visit No: 4	
Acres Surve	<b>eyed</b> 40	Survey Time:	4 hours 5 min	Acres per	Hour: 9.8	
Other Surve	eyors Present:	Ben Rosenbaum – Supervis	ed Individual			
		Jasmine Bakker - Area A				

Field Conditions						
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover		
Start	1045	65	2-5	< 5% / clear		
End	1445	71	2-6	< 5% / clear		
Start						
End						

#### Vegetation Communities Surveyed (inc. dominant spp.)

<u>CC/SMC</u> – Adenostoma fasciculatum, Xylococcus bicolor, Erigonum fasciculatum, Acmispon glaber <u>NNG</u> – Avena, bromes, Erodium

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (Plantago erecta)	Х	popcorn flower (Cryptantha/Plagiobothrys spp.)	Х
purple owl's clover (Castilleja exserta)		goldfields (Lasthenia spp.)	Х
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	Х
woolly plantain (Plantago patagonica)		onion (Allium spp.)	Х
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	Х
		ground pink (Linanthus dianthiflorus)	Х

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis Iorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)	2	painted lady (V. cardui)	1
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	1
marine blue (Leptotes marina)		Swallowtails	
unidentified blue	2	pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)	1	anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)		monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white	1	funereal duskywing (Erynnis funeralis)	4
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	73	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper ( <i>Pyrgus albescens</i> )	
Sulphurs		Other	
orange sulphur (Colias eurytheme)			
sleepy orange (Eurema nicippe)			
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur	1		
Column Subtotal	80	Column Subtotal	6
	_	Total	86

S.N1690 JPD-OK 3/9/15 3	200	135	Bah lac	Plag. Sp. / Lin dian	Sriod, evas	2	Hed crest (Ziga 3 -> Tox fre (Zig fre)	الردائ	OT C	Oxa pad.c. Emm pend	CAKI, NOMB, MODO, WEME, CALT, CATH	WESP, CORPA, god SOI, AUCR, BUSH	Whast
3/9/15 JPD-08 S.101670	Area C QCB Survey #4 House	1000 X	70	2540 John -5 40/clear	4.08 hrs somewal 9.8 ac/wr	butter flies NO QCB	SEWS WM & XX X	(adul 50° = 2 blue 50°=2	fun dusky = 4 Total buttertheis		white'sp'=1	NUG - browns , Areta , Endern = bon	TOTAL - Ale Aus, Nyl. bic, Enis Bac

Surveyor: Melanie	2015 Quino Checkerspot Butterfly	Date: 3/9/2015
Site Name: Proctor Valley – Vil Acres Surveyed 127	Survey Time: SILY	Site Visit No: 4  Acres per Hour: 6.05
Other Surveyors Present:	M. Diens, G. Huff	man
	Field Conditions	

		Field Condit	ions	
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0920	61	1-2	0%
End				
Start	12 45	77	2-9	0%
End	1615	78	1-2	02.

Vegetation C	ommunities Surveyed (inc. dominant spp.)	)		
DCSS,	Change Chaparral	Disturbed	NNG	
	,			

Obs.	Nectar Plants	Obs
X	popcorn flower (Cryptantha/Plagiobothrys spp.)	×
	goldfields (Lasthenia spp.)	X
	goldenstar (Muilla spp.)	
	fiddleneck (Amsinckia menziesii var. intermedia)	X
	onion (Allium spp.)	X
	buckwheat (Eriogonum fasciculatum)	×
	ground pink (Linanthus dianthiflorus)	×
		popcorn flower (Cryptantha/Plagiobothrys spp.) goldfields (Lasthenia spp.) goldenstar (Muilla spp.) fiddleneck (Amsinckia menziesii var. intermedia) onion (Allium spp.) buckwheat (Eriogonum fasciculatum)

Butterfly Species	No.	Butterfly Species	No
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis Iorquini)	
western pygmy-blue (Brephidium exila)		west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)	1/11	painted lady (V. cardui)	
Edward's blue (Hemiargus ceraunus gyas)	****	American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	111
marine blue (Leptotes marina)		Swallowtails	
unidentified blue		pale swallowtail (Papilio eurymedon)	
Vhites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)	7
lesert (Felder's) orangetip (A. cethura)		Miscellaneous	
ommon California ringlet (Coenonympha californica)	1	monarch (Danaus plexippus)	
abbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
pring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	1111
Metalmarks		mournful duskywing (Erynnis tristis)	1
Behr's metalmark (Apodemia mormo virgulti) [[]	ar well	fiery skipper (Hylephila phyleus)	
Vright's metalmark (Calephelis wrighti)	W. W.	white (common) checkered-skipper (Pyrgus albescens)	
ulphurs		Other	
range sulphur (Colias eurytheme)			
leepy orange (Eurema nicippe)			
loudless sulfur (Phoebus sennae marcellina)			
nidentified sulphur			
Column Subtotal	33	Column Subtotal	7

Surveyor:	MELANIE	DICUS	Date:	03-09	7-2015	
Site Name:	The second second	- Village 14 of Otay Ranch		S	ite Visit No:	4
Acres Surve	yed 120	Survey Time:	0915-1615	Acres	er Hour:	6.05
Other Survey	yors Present:	GARRETT NUFFMA	N, MELANIE	ROCKS		

		Field Condit	ions	
	Time (24 hr)	Temperature ('F)	Wind Speed (mph)	Cloud Cover
Start	0915	60.6	1-2	Ø
End	1615	78	1-2	Ø
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)	
CHAMISE CHAPARRAL	

Host Plants	Obs.	Nectar Plants	Obs.
f plantain (Plantago erecta)	X	popcorn flower (Cryptantha/Plagiobothrys spp.)	×
le owl's clover (Castilleja exserta)		goldfields (Lasthenia spp.)	×
dragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	×
-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	×
ly plantain (Plantago patagonica)		onion (Allium spp.)	×
ese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	×
		ground pink (Linanthus dianthiflorus)	×
		ground pink (Linanthus dianthiflo	rus)

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)	
Gabb's checkerspot (C. gabbii)		brown elfin (Callophrys augustinus)	
Quino checkerspot (Euphydryas editha quino)		bramble (perplexing) hairstreak (C. dumetorum affinis)	
chalcedon checkerspot (E. chalcedona chalcedona)		gray hairstreak (Strymon melinus pudica)	
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals	
Mylitta crescent (Phyciodes mylitta)		California sister (Adelpha bredowii californica)	
Blues		Lorquin's admiral (Limenitis lorquini)	
western pygmy-blue (Brephidium exila)	A 300-77	west coast lady (Vanessa annabella)	
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	
southern blue (Glaucopsyche lygdamus australis)	8	painted lady (V. cardui)	5
Edward's blue (Hemiargus ceraunus gyas)	10.000	American (Virginia) lady (V. virginiensis)	
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	
marine blue (Leptotes marina)		Swallowtails	
unidentified blue		pale swallowtail (Papilio eurymedon)	
Whites		western tiger swallowtail (P. rutulus)	
Sara orangetip (Anthocharis sara sara)		anise swallowtail (P. zelicaon)	
desert (Felder's) orangetip (A. cethura)		Miscellaneous	
common California ringlet (Coenonympha californica)	1	monarch (Danaus plexippus)	
cabbage white (Pieris rapae)		common buckeye (Junonia coenia grisea)	
checkered (common) white (Pontia protodice)		mourning cloak (Nymphalis antiopa)	
spring white (P. sisymbrii)		Skippers	
unidentified white		funereal duskywing (Erynnis funeralis)	7
Metalmarks		mournful duskywing (Erynnis tristis)	
Behr's metalmark (Apodemia mormo virgulti)	71	fiery skipper (Hylephila phyleus)	
Wright's metalmark (Calephelis wrighti)		white (common) checkered-skipper (Pyrgus albescens)	
Sulphurs		Other	
orange sulphur (Colias eurytheme)		COLIAS HARFORDII	1
sleepy orange (Eurema nicippe)			70,000,00
cloudless sulfur (Phoebus sennae marcellina)			
unidentified sulphur			
Column Subtotal	80	Column Subtotal	13
		Total	93

Surveyor	r. CTARRET HUE	FMAN			tterfly Survey Form  Date:	19/15		
Site Nam	ie: Proctor Valley - Village	14 of Otay Ra	ench -	Par	Site V	Set No. //		
Acres Surveyed 420 Survey 1			ima:	ime: Acres per Hour: 6.05				
Other Su	ryovere Present: As G	_ • • • • • • • • • • • • • • • • • • •			Acres per n	our:		
Other Sur	rveyors Present:MR	LANIA	ROCK	5	WELANIE DICH	5		
			Field	Conditio	ine			
	Time (24 hr)	Tempo	erature ("F		Wind Speed (mph)	Cloud Co	wor	
Start	0920	la.	10	'	1 7	N N	ver	
End	16 15	704	0	_	1-2	V I		
Start	16.7	TU		1-2				
End			-		The state of the s	~		
Vocatatio	2	Action of the same of the same			WITCHISE IN THE			
vegetatio	on Communities Surveyed (i	nc. dominant	spp.)					
							- 1	
		9						
	Host Plants		Obs.		Nectar Plants		Obs.	
dwarf plan	ntain (Plantago erecta)		×	popo	orn flower (Cryptantha/Plagiot	oothrys spp.)	V	
purple owl	l's clover (Castilleja exserta)		X	goldfi	goldfields (Lasthenia spp.)			
hirds-heak	on (Antirrhinum coulterianum)	-	1		enstar (Muilla spp.)			
woolly plan	k (Cordylanthus rigidus) ntain (Plantago patagonica)			fiddle	neck (Amsinckia menziesii va	r. intermedia)		
	nouses (Collinsia spp.)				(Allium spp.)		X	
Omnoco	buses (Collinsia Spp.)				wheat (Eriogonum fasciculatur		X	
-				groun	nd pink (Linanthus dianthiflorus	s)	X	
		1/ <u>-</u>	-					
01 1	Butterfly Species		No.		Butterfly Species	3	No.	
Checkerspots				Hairst				
Gabits che	patch (Chlosyne californica)			great p	ourple hairstreak (Atlides hales	sus corcorani)		
Gabb's checkerspot (C. gabbii)  Quino checkerspot (Euphydryas editha quino)		wino)	32		elfin (Callophrys augustinus)		The State of	
chalcedon (	checkerspot (E. chalcedona cl	halcedona)		brambi	le (perplexing) hairstreak (C. d	lumetorum affinis)		
Leanira che	eckerspot (Thessalia leanira w	riahti)			airstreak (Strymon melinus pu	dica)		
	scent (Phyciodes mylitta)	119.11.7	-		nia sister (Adelpha bredowii ca			
Blues		70,700		I orquir	ma sister (Adeipna bredowii ca n's admiral ( <i>Limenitis Iorquini</i> )	alifornica)		
western pyg	gmy-blue (Brephidium exila)				past lady (Vanessa annabella			
western taile	ed blue (Everes amyntula)				miral (V. atalanta rubria)	)	-	
southern blu	ue (Glaucopsyche lygdamus a	ustralis)	10-		I lady (V. carduí)		5	
Edward's bli	lue (Hemiargus ceraunus gyas	s)		Americ	an (Virginia) lady (V. virginiens	sis)	*	
	(Icaricia acmon acmon)			unident	tified lady (Vanessa sp.)			
marine blue unidentified	(Leptotes marina)			Swallo	wtails			
Whites	blue			pale sw	vallowtail (Papilio eurymedon)			
100000000000000000000000000000000000000	etip (Anthocharis sara sara)			westerr	tiger swallowtail (P. rutulus)			
desert (Feld	ler's) orangetip (A. cethura)				wallowtail (P. zelicaon)			
common Cal	lifornia ringlet (Coenonympha	californica)			aneous			
	nite (Pieris rapae)	Camornica)		monard	h (Danaus plexippus)			
	common) white (Pontia protod	lice)		mournit	n buckeye (Junonia coenia gri	sea)		
	(P. sisymbrii)	Lucy .		Skippe	ng cloak (Nymphalis antiopa)			
unidentified v	white				l duskywing ( <i>Erynnis funeralis</i>		-	
Metalmarks					Il duskywing (Erynnis tristis)	) -	15	
Behr's metal	lmark (Apodemia mormo virgu	ılti)	65	fiery ski	pper (Hylephila phyleus)			
Wright's met	talmark (Calephelis wrighti)		**		ommon) checkered-skipper (F	Pyrqus albescens)		
Sulphurs				Other	,	yigud aibuddaila,	-	
	nur (Colias eurytheme)							
leepy orange	ge (Eurema nicippe)							
inidentified s	fur (Phoebus sennae marcellii	na)						
indentined s	100-0-100-0-0	2 11 11						
	Colum	nn Subtotal	76			Column Subtotal	70	

Total

urvey Time: いい, K	d Conditi	ons Wind Speed (mph)	Our: G.75	
Field Temperature	d Conditi	ons	Cloud Cove	
Field Temperature 72° 74°		T		
Temperature		T		
Temperature		T		
72° 76°	(°F)	Wind Speed (mph)		100
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ominant spp.)				
ominant spp.)				-
ominant spp.)				
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Ob:	s.	Nectar Plants		Ob
	X por	corn flower (Cryptantha/Plagiol	bothrys spp.)	>
			ır. intermedia)	2
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X	gio	und pink (Linanulus dianuliilolu	3)	
No			!S	No
			adicaj	
	Calif	ornia sister (Adelpha bredowii d	californica)	
	Lorq	Lorquin's admiral (Limenitis lorquini)		8
	wes	coast lady (Vanessa annabell	a)	
		red admiral (V. atalanta rubria)		
alis)				2
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ornica)	mon	arch (Danaus plexippus)		
	com	mon buckeye ( <i>Junonia coenia g</i>	grisea)	
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2				_6
2			(Pyraus albassans)	
			(r yrgus aibescens)	
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3				
Subtotal 3				De Californi
	No N	No.  No.  Hair grea brow bran dona) gray calif Lorg west red a alis) pain Ame unid Swa 2 pale west a anis fornica) mon com mou Skip fune mou 28 fiery white	popcorn flower (Cryptantha/Plagion goldfields (Lasthenia spp.)  goldenstar (Muilla spp.)  fiddleneck (Amsinckia menziesii va onion (Allium spp.)  buckwheat (Eriogonum fasciculatu ground pink (Linanthus dianthifloru dianthifloru)  No.  Butterfly Specie Hairstreaks  great purple hairstreak (Atlides hale brown elfin (Callophrys augustinus) bramble (perplexing) hairstreak (C. gray hairstreak (Strymon melinus proposition)  Ladies/Admirals  California sister (Adelpha bredowii of Lorquin's admiral (Limenitis lorquini west coast lady (Vanessa annabell red admiral (V. atalanta rubria) painted lady (V. cardui)  American (Virginia) lady (V. virginie unidentified lady (Vanessa sp.)  Swallowtails  pale swallowtail (Papilio eurymedon western tiger swallowtail (P. rutulus anise swallowtail (P. zelicaon)  Miscellaneous  fornica)  Miscellaneous  fornica)  California sister (Adelpha bredowii of Lorquini west coast lady (Vanessa annabelli red admiral (V. atalanta rubria)  painted lady (V. cardui)  American (Virginia) lady (V. virginie unidentified lady (Vanessa sp.)  Swallowtails  pale swallowtail (Papilio eurymedon western tiger swallowtail (P. rutulus anise swallowtail (P. rutulus anise swallowtail (P. rutulus anise swallowtail (P. zelicaon)  Miscellaneous  fornica)  fornica)  fornica)  fornica (Junonia coenia of mourning cloak (Nymphalis antiopa)  Skippers  funereal duskywing (Erynnis funeral mournful duskywing (Erynnis funeral mournful duskywing (Erynnis tristis)	Description of the common of

2015 Quino Checkerspot Butterfly Survey Form Vietor Nodi Project Name: Section Survey Time (hrs): Other Surveyors Present: **Field Conditions** Time (24 hr) Temperature (°F) Wind Speed (mph) Cloud Cover (%) Start End Start End Vegetation communities surveyed: list dominant species Erifos, Adefine, lotsio, sulmun Quino Host Plants (2014 USFWS Protocol) Present?/Flowering? Quino Nectar Plants Present?/Flowering? birds-beak (Cordylanthus rigidus) Chinese houses (Collinsia heterophylla) dot-seed plantain (Plantago erecta) while purple owl's clover (Castilleja exserta) 9.m=m snapdragon (Antirrhinum coulterianum) woolly plantain (Plantago patagonica) **Butterfly Species** Tally **Butterfly Species** Tally No. Checkerspots Hairstreaks California patch brown elfin chalcedon checkerspot bramble (perplexing) hairstreak Gabb's checkerspot grey hairstreak Leanira checkerspot great purple hairstreak Mylitta crescent Ladies/Admirals/Allies Quino checkerspot American (Virginia) lady Blues painted lady Acmon blue west coast lady Edward's (Ceranaus) blue unidentified lady marine blue California sister Silvery (southern) blue Lorquin's admiral western pygmy-blue red admiral western tailed blue Swallowtails unidentified blue anise swallowtail pale swallowtail Whites western tiger swallowtail cabbage white Miscellaneous checkered (common) white common buckeye California ringlet monarch - MAP THIS SPECIES desert orangetip mourning cloak Sara orangetip Striated queen spring (California) white Hermes copper - MAP THIS SPECIES unidentified white Skippers Metalmarks funereal duskywing Behr's metalmark mournful duskywing Wright's metalmark fiery skipper Sulphurs white (common) checkered skipper cloudless sulfur Other species orange sulphur sleepy orange unidentified sulphur

Total

2015 Quino Checkerspot Butterfly Survey Form Surveyor: Site Name: Proctor Valley - Village 14 of Otay Ranch Survey Time: Acres per Hour: \_ Acres Surveyed Other Surveyors Present: **Field Conditions** Time (24 hr) Temperature (°F) Wind Speed (mph) Cloud Cover Start 0% End Start End Chamse chaparice, non-native Vegetation Communities Surveyed (inc. dominant spp.) **Host Plants** Obs. **Nectar Plants** Obs. dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleja exserta) goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) buckwheat (Eriogonum fasciculatum) Chinese houses (Collinsia spp.) ground pink (Linanthus dianthiflorus) **Butterfly Species Butterfly Species** No. No. Hairstreaks Checkerspots California patch (Chlosyne californica) great purple hairstreak (Atlides halesus corcorani) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) bramble (perplexing) hairstreak (C. dumetorum affinis) Quino checkerspot (Euphydryas editha quino) chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Ladies/Admirals Leanira checkerspot (Thessalia leanira wrighti) Mylitta crescent (Phyciodes mylitta) California sister (Adelpha bredowii californica) Blues Lorquin's admiral (Limenitis lorquini) western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) red admiral (V. atalanta rubria) western tailed blue (Everes amyntula) painted lady (V. cardui) southern blue (Glaucopsyche lygdamus australis) 4 Edward's blue (Hemiargus ceraunus gyas) American (Virginia) lady (V. virginiensis) unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) marine blue (Leptotes marina) **Swallowtails** pale swallowtail (Papilio eurymedon) unidentified blue western tiger swallowtail (P. rutulus) Whites Sara orangetip (Anthocharis sara sara) anise swallowtail (P. zelicaon) desert (Felder's) orangetip (A. cethura) Miscellaneous common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) common buckeye (Junonia coenia grisea) mourning cloak (Nymphalis antiopa) checkered (common) white (Pontia protodice) spring white (P. sisymbrii) Skippers funereal duskywing (Erynnis funeralis) unidentified white Metalmarks mournful duskywing (Erynnis tristis) fiery skipper (Hylephila phyleus) Behr's metalmark (Apodemia mormo virguiti) Wright's metalmark (Calephelis wrighti) white (common) checkered-skipper (Pyrgus albescens) Sulphurs orange sulphur (Colias eurytheme) Shorter Willen sleepy orange (Eurema nicippe) cloudless sulfur (Phoebus sennae marcellina) unidentified sulphur

Column Subtotal

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2015 Quino Checkerspot Butterfly Survey Form TRAUS COPER Surveyor: Proctor Valley - Village 14 of Otay Ranch Site Name: 123 Acres per Hour: Survey Time: Acres Surveyed Alicia Hill Victor Movik Other Surveyors Present: **Field Conditions** Time (24 hr) Temperature (°F) Wind Speed (mph) **Cloud Cover** 0830 Start End 1430 Start End Vegetation Communities Surveyed (inc. dominant spp.) C 5 5 Chamise Unop, NNG **Host Plants** Obs. **Nectar Plants** Obs. dwarf plantain (Plantago erecta) popcorn flower (Cryptantha/Plagiobothrys spp.) purple owl's clover (Castilleja exserta) den Siriolo goldfields (Lasthenia spp.) snapdragon (Antirrhinum coulterianum) goldenstar (Muilla spp.) birds-beak (Cordylanthus rigidus) fiddleneck (Amsinckia menziesii var. intermedia) woolly plantain (Plantago patagonica) onion (Allium spp.) Chinese houses (Collinsia spp.) buckwheat (Eriogonum fasciculatum) ground pink (Linanthus dianthiflorus) **Butterfly Species Butterfly Species** No. No. Checkerspots Hairstreaks great purple hairstreak (Atlides halesus corcoraní) California patch (Chlosyne californica) Gabb's checkerspot (C. gabbii) brown elfin (Callophrys augustinus) Quino checkerspot (Euphydryas editha quino) bramble (perplexing) hairstreak (C. dumetorum affinis) chalcedon checkerspot (E. chalcedona chalcedona) gray hairstreak (Strymon melinus pudica) Ladies/Admirals Leanira checkerspot (Thessalia leanira wrighti) Mylitta crescent (Phyciodes mylitta) California sister (Adelpha bredowii californica) Lorquin's admiral (Limenitis Iorquini) Blues western pygmy-blue (Brephidium exila) west coast lady (Vanessa annabella) red admiral (V. atalanta rubria) western tailed blue (Everes amyntula) painted lady (V. cardui) southern blue (Glaucopsyche lygdamus australis) American (Virginia) lady (V. virginiensis) Edward's blue (Hemiargus ceraunus gyas) unidentified lady (Vanessa sp.) Acmon blue (Icaricia acmon acmon) Swallowtails marine blue (Leptotes marina) pale swallowtail (Papilio eurymedon) unidentified blue western tiger swallowtail (P. rutulus) Whites anise swallowtail (P. zelicaon) Sara orangetip (Anthocharis sara sara) Miscellaneous desert (Felder's) orangetip (A. cethura) common California ringlet (Coenonympha californica) monarch (Danaus plexippus) cabbage white (Pieris rapae) , common buckeye (Junonia coenia grisea) mourning cloak (Nymphalis antiopa) checkered (common) white (Pontia protodice) spring white (P. sisymbrii) Skippers funereal duskywing (Erynnis funeralis) 1 unidentified white Metalmarks Z Z X X X X X mournful duskywing (Erynnis tristis)

flery skipper (Hylephila phyleus)

Queer

white (common) checkered-skipper (Pyrgus albescens)

Column Subtotal

Total

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SOLPAR MR LAG ALMSPE CAMSPE

> Behr's metalmark (Apodemia mormo virgulti) X Wright's metalmark (Calephelis wrighti)

cloudless sulfur (Phoebus sennae marcellina)

Column Subtotal

orange sulphur (Colias eurytheme)

sleepy orange (Eurema nicippe)

unidentified sulphur

Sulphurs

Surveyor: VILTON DOUIK	Date: 3/12/15	Date: 3/12/15					
Site Name: Proctor Valley - Village 14 of Ota	Site Visit No: 4	Site Visit No: 4					
Acres Surveyed 123 Sur	vey Time:	Site Visit No: 4					
Other Surveyors Present:	Hill, to	aus coopen					
7.11.15							
	F: 116	N 199					
Time (24 hr)	Field ( emperature (°F	Conditions Wind Speed (1994)	es a constant				
1 50 to 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	emperature ( F	perature (°F) Wind Speed (mph) Cloud Cov					
0030	63 9 1-2		2				
End 1430	85	93-5 6					
Start							
End							
Vegetation Communities Surveyed (inc. dom	inant spp.)						
moved Chap - Adefos,							
Miles Chap - Markos							
Host Plants	Obs.	Nectar Plants	Obs.				
dwarf plantain (Plantago erecta)	1	popcorn flower (Cryptantha/Plagiobothrys spp.)	1				
purple owl's clover (Castilleja exserta) dens	1 X	goldfields (Lasthenia spp.)	X				
snapdragon (Antirrhinum coulterianum)		goldenstar (Muilla spp.)	X				
birds-beak (Cordylanthus rigidus)		fiddleneck (Amsinckia menziesii var. intermedia)	X				
woolly plantain (Plantago patagonica)		onion (Allium spp.)	X				
Chinese houses (Collinsia spp.)		buckwheat (Eriogonum fasciculatum)	X.				
		ground pink (Linanthus dianthiflorus)	<b>X</b>				
Butterfly Species	No.	Butterfly Species	No.				
Checkerspots		Hairstreaks					
California patch (Chlosyne californica)		great purple hairstreak (Atlides halesus corcorani)					
Gabb's checkerspot (C. gabbii)	4	brown elfin (Callophrys augustinus)					
Quino checkerspot (Euphydryas editha quino)	- 4	bramble (perplexing) hairstreak (C. dumetorum affinis)					
chalcedon checkerspot (E. chalcedona chalcedon	na)	gray hairstreak (Strymon melinus pudica)					
Leanira checkerspot (Thessalia leanira wrighti)		Ladies/Admirals					
Mylitta crescent (Phyciodes mylitta)  Blues	_	California sister (Adelpha bredowii californica)					
western pygmy-blue (Brephidium exila)		Lorquin's admiral ( <i>Limenitis lorquini</i> ) west coast lady ( <i>Vanessa annabella</i> )	1				
western tailed blue (Everes amyntula)		red admiral (V. atalanta rubria)	-				
southern blue (Glaucopsyche lygdamus australis	)	painted lady (V. cardui)	11				
Edward's blue (Hemiargus ceraunus gyas)		American (Virginia) lady (V. virginiensis)	11				
Acmon blue (Icaricia acmon acmon)		unidentified lady (Vanessa sp.)	1				
marine blue (Leptotes marina)		Swallowtails	1				
unidentified blue	1	pale swallowtail (Papilio eurymedon)	1				
Whites		western tiger swallowtail (P. rutulus)					
Sara orangetip (Anthocharis sara sara)	- 1	anise swallowtail (P. zelicaon)					
desert (Felder's) orangetip (A. cethura)	ion\ 1	Miscellaneous					
common California ringlet (Coenonympha californ	ica)	monarch (Danaus plexippus)					
cabbage white (Pieris rapae) checkered (common) white (Pontia protodice)		common buckeye (Junonia coenia grisea)	-				
spring white (P. sisymbrii)		mourning cloak (Nymphalis antiopa)  Skippers					
unidentified white	1	funereal duskywing (Erynnis funeralis)	111/11/11				
Metalmarks		mournful duskywing (Erynnis tristis)	11111111				
Behr's metalmark (Apodemia mormo virgulti)	THIMIH !	fiery skipper (Hylephila phyleus)					
Wright's metalmark (Calephelis wrighti)	· · · · · · · · · · · · · · · · · · ·	white (common) checkered-skipper (Pyrgus albescens)					
Sulphurs		Other					
orange sulphur (Colias eurytheme)							
sleepy orange (Eurema nicippe)							
cloudless sulfur (Phoebus sennae marcellina)	4						
unidentified sulphur	total		10				
Column Sub	total 30	Column Subtotal	13				

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