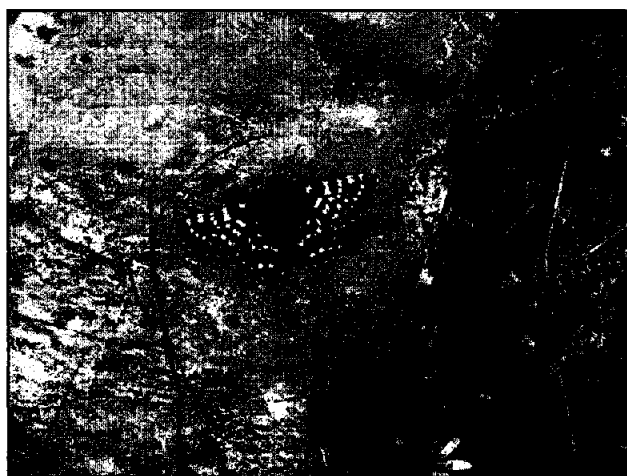


# 2007 Technical Report of Findings for Adult Quino Checkerspot Butterfly Surveys at the Dulzura Fuel Break



*Submitted to:*  
BLM Palm Springs/South Coast  
San Diego Project Office  
POB 892  
Jamul, CA 91935

*Submitted by:*



**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

**July 2007**

1801 Park Court Place  
Building B, Suite 103  
Santa Ana, CA 92701

## CONTENTS

# 2007 QUINO CHECKERSPOT BUTTERFLY SURVEYS, DULZURA FUEL BREAK

SUMMARY .....	2
1.0 INTRODUCTION .....	2
1.1 Site Location and Description .....	2
2.0 SURVEY METHODOLOGY .....	2
3.0 RESULTS .....	4
3.1 Survey Conditions .....	4
3.2 Plant Communities and QCB Habitat .....	5
3.3 General Wildlife .....	5
3.4 General Butterfly Species .....	7
3.5 Quino Checkerspot Butterfly .....	8
4.0 ANALYSIS AND CONCLUSION .....	9
5.0 LITERATURE CITED .....	12

### **List of Tables**

Table 1 – Weather Conditions during Field Surveys .....	4
Table 2 – Butterfly Species Observed .....	7

### **List of Figures**

Figure 1 – Dulzura Vicinity Map .....	3
Figure 2A&B – Dulzura Fuel Break Habitat Photographs .....	6
Figure 2C – Dulzura Fuel Break Habitat Photographs .....	8
Figure 2D – Dulzura Fuel Break Habitat Photographs .....	9
Figure 3 – 2007 QCB Survey Results Map .....	10

### **List of Appendices**

APPENDIX A – FIELD DATA SHEETS	
APPENDIX B – PLANT SPECIES OBSERVED	
APPENDIX C – WILDLIFE SPECIES OBSERVED	

## **SUMMARY**

ECORP Consulting, Inc (ECORP) was retained by the Bureau of Land Management (BLM) to conduct presence/absence surveys for the federally endangered Quino checkerspot butterfly (*Euphydryas editha quino*) at the Dulzura Fuel Break located in the County of San Diego, California. Six Quino checkerspot butterfly (QCB) adult focused surveys were conducted in accordance with the most recent protocol guidelines for this species (USFWS 2002) along an approximately 1.5-mile stretch of the Dulzura Fuel Break during the 2007 flight season. The surveys resulted in thirteen QCB detections over the course of the surveys, the peak of which occurred in late March.

## **1.0 INTRODUCTION**

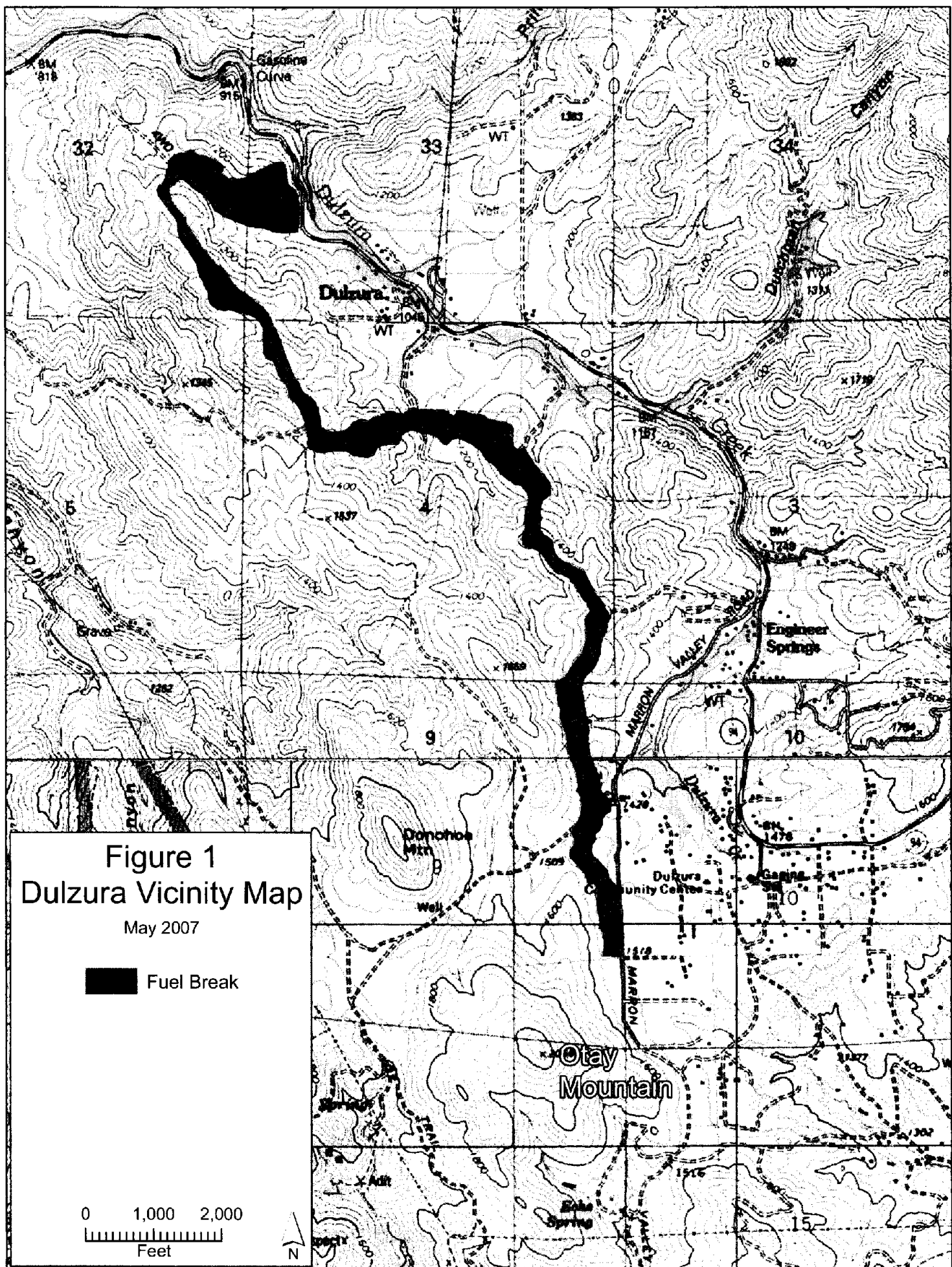
### **1.1 Site Location and Description**

The Dulzura Fuel Break site is located entirely on BLM land in southern San Diego County, California. The site is located southwest of Highway 94 and northwest of Marron Valley Road. The proposed fuel break is approximately 3-3.5 miles long running in a north-south direction for approximately 1.5 miles then turning west-east for approximately 0.5 miles and then turning north-south for approximately 1-1.5 miles (Figure 1). The fuel break is located within Sections 4 and 9 of Township 18 South, Range 2 East of the Dulzura U.S. Geological Survey 7.5' topographic quadrangle. The site ranges from approximately (1,190 feet) above meal sea level (amsl) to over (1,560) feet amsl.

## **2.0 SURVEY METHODOLOGY**

QCB adult surveys were conducted utilizing guidelines from the 2002 U.S. Fish and Wildlife Service Survey Protocol Information (USFWS 2002) to maximize detection of adults during the flight season. The Carlsbad USFWS office web page (USFWS website 2007) for monitored QCB reference site information was checked periodically to determine the likely "beginning" of the flight season in the vicinity of the site. USFWS monitors six primary reference populations on an annual basis in southwestern San Diego County; the closest to the survey area in geographic proximity and habitat characteristics being the Marron Valley reference site, approximately 5.1 miles south of the site. In addition, periodic habitat assessments were conducted to determine the status of host and nectar sources at the site to assist with determining the likely start of the flight season at the site itself. Weekly monitoring surveys at the Dulzura site were initiated on March 17<sup>th</sup> based on suitable weather conditions, sufficient growth of host and nectar sources at the site, and the detection of 1 larvae at a site in Rancho Jamul (approximately 10 miles north of the site) on March 16<sup>th</sup>.

Surveys were concentrated within 200 feet of the fuel break centerline in an approximately 1.5-mile stretch of the Dulzura Fuel Break. Surveys were conducted by 10(a)(1)(A) permitted biologists Lisa Allen (TE-050450) and Sophie Chiang (TE-064359). Surveys were conducted once per week (weather permitting) on non-consecutive days during the peak of the flight season for a total of six surveys. Surveys were not conducted during unsuitable weather conditions (fog, drizzle, rain, sustained winds greater than 15 miles per hour (mph), or temperatures less than 60 degrees Fahrenheit (°F) in the shade at 6 inches (6") above the ground on a clear sunny day, or temperatures less than 70°F on an overcast or cloudy day).



Surveys focused on likely breeding areas (host plant patches), feeding areas (nectaring plant patches), and topographical features conducive to detecting QCB (ridgelines, hilltops, rock outcrops, dirt roads, open ground with clays soils). Special care was taken to avoid trampling host plant patches in order to minimize impacts to QCB habitat, larvae, and eggs. Other suitable areas within the vicinity were surveyed as time permitted. Areas were walked at an average rate of 10-15 acres per hour. Binoculars (with a minimum of 8x42 magnification) were utilized to identify the majority of butterfly species that could not be seen at a close range. Butterfly species that were definitely not a checkerspot species but that could not be identified to species on the fly were netted, identified, and released.

General survey forms were filled out for each survey, noting the weather conditions, date of the survey, and start and end times. QCB that were detected were plotted on a topographic field map of the survey area and the coordinates were recorded utilizing a handheld Geographic Positioning System (GPS) unit. A QCB detection form was filled out for each QCB observation during each survey. The QCB detection form and map were submitted to BLM and USFWS on a weekly basis. The number and species of butterflies observed during each survey was recorded on a butterfly species form. Incidental wildlife observed during the surveys were noted on the general survey forms. General vegetation characteristics, flowering plants, nectar sources, and host plant locations were noted on the general survey forms or on separate field notes. Host plant and nectar source locations were recorded on the map and by utilizing GPS. All field survey forms and notes are included as Appendix A.

### 3.0 RESULTS

#### 3.1 Survey Conditions

A habitat assessment survey was conducted by USFWS biologist Alison Anderson, ECORP biologist Christine Tischer, and independent biologist Michael Klein on January 9, 2007. No host plant growth (*Plantago* sp.) was detected at that time. Follow-up habitat assessment surveys were conducted by Ms. Tischer, Ms. Allen, Ms. Chiang, and BLM biologist Joyce Schlachter on March 4, 2007. Weekly surveys began on March 17, 2007 and were conducted by Ms. Allen and Ms. Chiang and occasionally accompanied by Ms. Schlachter. Table 1 summarizes the survey conditions during each of the six focused adult surveys.

**Table 1. Weather Conditions during Field Surveys**

Survey	Date	Survey Team	Time		Temperature (°F)		Cloud Cover		Wind Speed (mph)	
			Start	End	Start	End	Start	End	Start	End
1	03/17/07	LA, SC, JS	1020	1420	75	85	partly cloudy	clear	1-3	4-7
2	03/25/07	LA, SC	1345	1715	73	74	partly cloudy	clear	1-3	<1
3	04/01/07	LA, SC, JS	1220	1600	78	78	clear	clear	1-3	4-7
4	04/07/07	LA, SC	1415	1615	70	65	partly cloudy	partly cloudy	4-7	1-3
5	04/14/07	LA, SC	1235	1500	73	73	partly cloudy	partly cloudy	1-3	4-7
6	04/28/07	LA, SC	1250	1500	94	90	clear	clear	1-3	4-7

LA = Lisa Allen, SC = Sophie Chiang, JS = Joyce Schlachter

### 3.2 Plant Communities and QCB Habitat

The survey area consists of hillsides with open sage scrub and open chaparral habitat interspersed by lowland valleys that are dominated by non-native grasslands (Figure 2A). The clay soil substrate and rock outcrops that occur throughout the area provide suitable QCB habitat (Figure 2B). Non-native grassland habitat is dominated by brome grasses (*Bromus* sp.) and wild oat (*Avena* sp.), forming a thick layer of thatch that excludes native annual herbs (and thus QCB) from these areas. Dominant shrubs within the scrub and chaparral habitat included San Diego viguiera (*Viguiera laciniata*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* sp. *fasciculatum*), laurel sumac (*Malosma laurina*), and chamise (*Adenostoma fasciculatum*). A general plant list is included in Appendix B.

The QCB's primary host plant (plantain [*Plantago* spp.]), was just sprouting at the start of the focused surveys and grew to between 0.5 and 1.5 inches during the course of the surveys. Plantain was abundant in several areas adjacent to the existing dirt access roads and in open areas within the sage and chaparral habitat. The majority of plantain was in senescence by the fifth and sixth monitoring surveys on April 14 and 28, respectively. Secondary host plants including owl's clover (*Castilleja exserta*) and Indian paintbrush (*Castilleja affinis*) were also present in small numbers and scattered throughout the site. Nectaring sources available included deerweed (*Lotus scoparius*), popcorn flower (*Plagiobothrys* spp. and *Cryptantha* spp.), blue dicks (*Dichelostemma capitatum*), goldfields (*Lasthenia californica*) and tidy tips (*Layia platyglossa*). Plants that function as QCB larval host plants or adult nectar sources are listed in Appendix B.

### 3.3 General Wildlife

Several wildlife species, mostly reptiles and birds, were observed or detected in the survey area over the course of the flight season. A list of general wildlife species observed or detected is included as Appendix C.

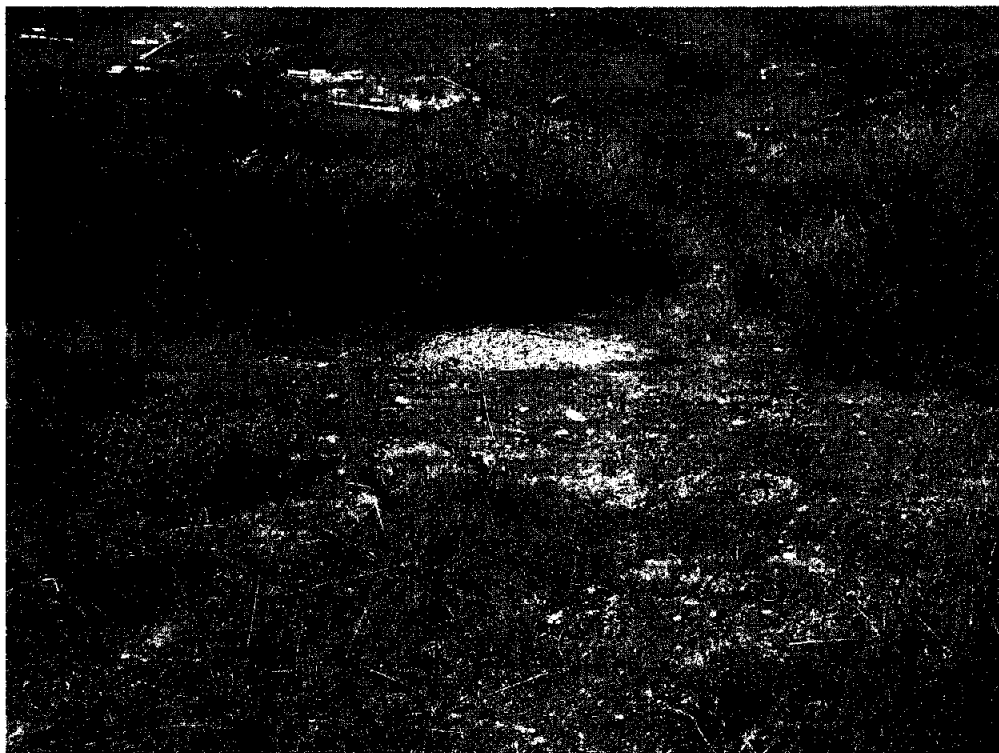
Two reptile species were observed including gopher snake (*Pituophis catenifer*) and alligator lizard (*Elgaria multicarinata*).

Bird species observed in the grassland habitat included mourning dove (*Zenaida macroura*), lark sparrow (*Chondestes grammacus*), lesser goldfinch (*Carduelis psaltria*), and white-tailed kite (*Elanus leucurus*). Bird species observed within the chaparral habitat included Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), blue-gray gnatcatcher (*Polioptila caerulea*), California thrasher (*Toxostoma redivivum*), and wrentit (*Chamaea fasciata*). Other bird species observed foraging on and adjacent to the site included common raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), and barn swallow (*Hirundo rustica*).

No mammal species were observed during the surveys. However, coyote (*Canis latrans*) and mule deer (*Odocoileus hemionus*) are likely to occur in the area.



A) Representative coastal sage scrub habitat along the Dulzura Fuel Break (3-17-07).



B) Representative QCB habitat surveyed along the Dulzura Fuel Break (3-17-07).

**Dulzura Fuel Break Habitat Photographs  
Figures 2A & 2B**

### 3.4 General Butterfly Species

A total of 16 butterfly species were detected during the surveys. Although there was not a multitude of butterflies observed during any given survey, Behr's metalmarks (*Apodemia mormo virgulti*), southern blues (*Glaucopsyche lygdamus*), and funereal duskwings were the most numerous and most consistently detected butterfly species. Perplexing hairstreaks (*Callophrys perplexa*) and Sara orangetips (*Anthocharis sara*) were also observed in the survey area. A complete list of butterfly species and numbers observed during each survey is included in Table 2.

**Table 2. Weekly Butterfly Species Observed**

Butterflies Observed	Survey 1 (3-17-07)	Survey 2 (3-25-07)	Survey 3 (4-01-07)	Survey 4 (4-7-07)	Survey 5 (4-14-07)	Survey 6 (4-28-07)
<b>Papilionidae-Swallowtails</b>						
pale swallowtail ( <i>Papilio eurymedon</i> )			2			
Anise swallowtail ( <i>P. zelicaon</i> )					1	
western tiger swallowtail ( <i>P. rutulus</i> )	1					
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>						
Sara orangetip ( <i>Anthocharis sara</i> )	19	1	4			
orangetip spp. ( <i>Anthocharis</i> sp.)	2					
Felder's orangetip ( <i>A. cethura</i> )	3	2	2			
cabbage white ( <i>Artogeia rapae</i> )					3	5
Harford's sulfur ( <i>Colias harfordi</i> )	1					6
alfalfa ( <i>C. eurydice</i> )					4	2
<b>Nymphalidae-Brush Footed Butterflies</b>						
Quino checkerspot ( <i>Euphydryas editha quino</i> )	3	8	2			
painted lady ( <i>Vannessa cardui</i> )		1				
lady ssp. ( <i>Vannessa</i> sp.)					3	
<b>Blues</b>						
southern blue ( <i>Glaucopsyche lygdamus australis</i> )	30	36	25		4	1
Acmon blue ( <i>Icaricia acmon</i> )	1					
<b>Hairstreaks</b>						
brown elfin ( <i>Incisalia augustinus</i> )	4					
perplexing hairstreak ( <i>Callophrys perplexa</i> )	14	15	14	1	1	
<b>Metalmarks</b>						
Behr's metalmark ( <i>Apodemia mormo virgulti</i> )	102	53	96	33	90	75
<b>Duskywings</b>						
funereal duskywing ( <i>Erynnis funeralis</i> )	32	42	27	3	14	



### **3.5 Quino Checkerspot Butterfly**

A total of 13 QCB observations were made over the course of the surveys. One chrysalis, 1 larva, and 1 adult QCB were detected during Survey 1 on March 17, eight adult QCB were detected during Survey 2 on March 25, and 2 adult QCB were detected during Survey 3 on April 1. No QCB were detected during the fifth, sixth and final survey on April 28, 2007. The majority of QCB detected were located on a series of hilltops in the southern portion of the survey area. This area is relatively open with several areas of plantain scattered throughout. QCB photos are included as Figures 2C and 2D. Figure 3 summarizes the location of each QCB observation and these occurrences can be correlated to the field data sheets in Appendix A.



C-) Larva of Quino checkerspot butterfly observed on 3-17-07 feeding on non-native weedy species.

### **Dulzura Fuel Break Habitat Photographs Figure 2C**



D) Photo of an adult Quino checkerspot butterfly observed at the Dulzura Fuel Break (3-25-07).

## **Dulzura Fuel Break QCB Photographs Figure 2D**

### **4.0 ANALYSIS AND CONCLUSION**

Thirteen QCB were observed in 2007 within the Dulzura Fuel Break site and there are several areas throughout the Dulzura Fuel Break that provide quality habitat for QCB. 2006 was a relatively dry year with late rains that resulted in the late emergence of flowering annuals and a later blooming period. Nectar sources were fairly limited at the majority of USFWS reference sites. In addition to the lack of nectar sources, the limited amount of rainfall also resulted in poor to mediocre host plant growth at most sites within the species' current distribution. The peak of QCB adult detection occurred during Survey 2 in late March and abruptly disappeared by Survey 4 and as the dry, hot weather resulted in a short blooming period for QCB host and nectar sources. This concludes the report at the Dulzura Fuel Break site for the 2007 flight season.

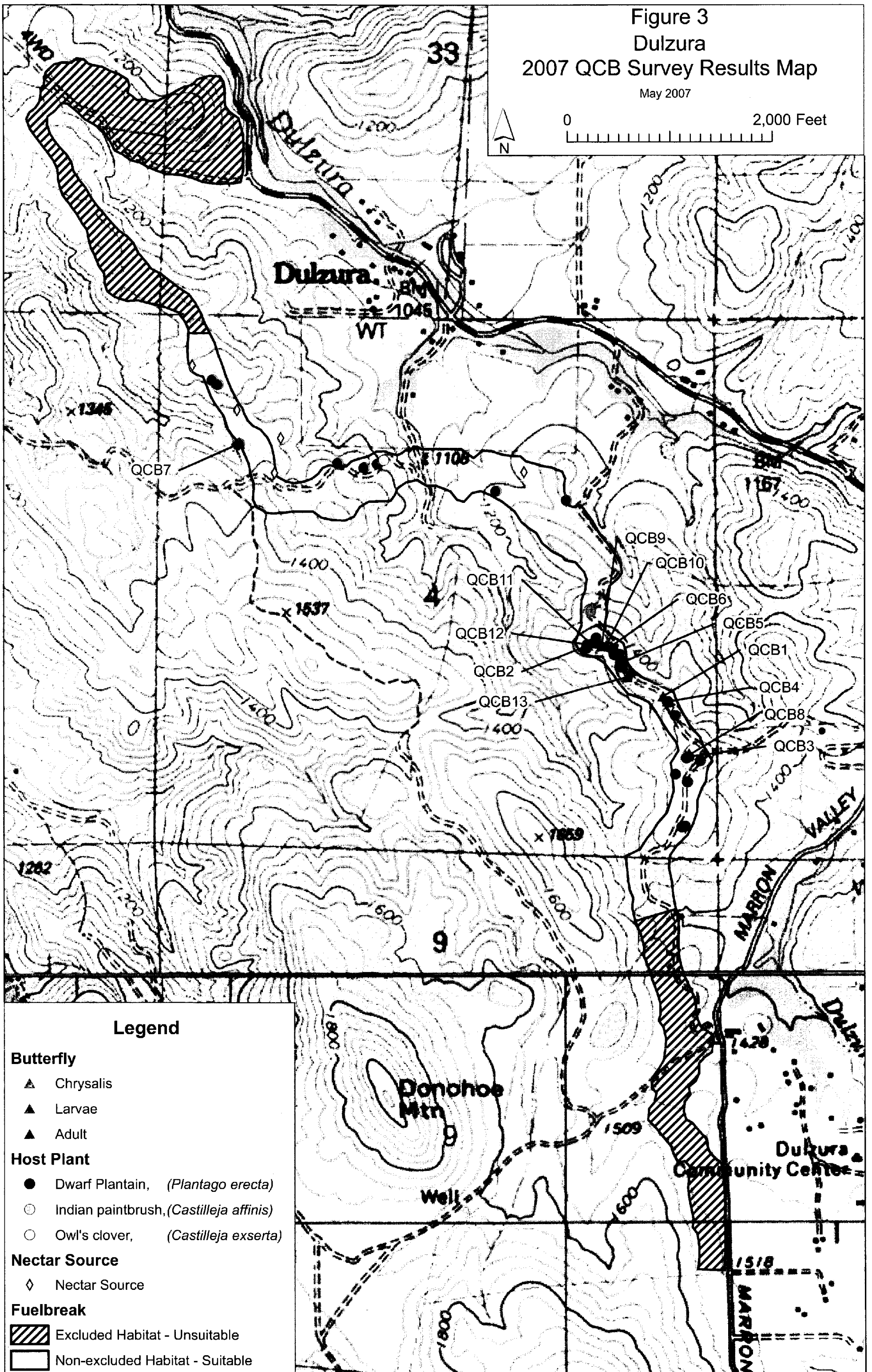
Figure 3  
Dulzura  
2007 QCB Survey Results Map

May 2007



0

2,000 Feet



### Legend

#### Butterfly

- ▲ Chrysalis
- ▲ Larvae
- ▲ Adult

#### Host Plant

- Dwarf Plantain, (*Plantago erecta*)
- Indian paintbrush, (*Castilleja affinis*)
- Owl's clover, (*Castilleja exserta*)

#### Nectar Source

- ◇ Nectar Source

#### Fuelbreak

- Excluded Habitat - Unsuitable
- Non-excluded Habitat - Suitable

*I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological survey, and that the facts, statements, and information presented herein are true and correct to the best of my knowledge and belief.*

SIGNED: Lisa Allen  
Lisa Allen (TE-050450)

DATED: May 30, 2007

SIGNED: Sophie Chiang  
Sophie Chiang (TE-064359)

DATED: May 30, 2007

## 5.0 LITERATURE CITED

- CalFlora: Information on California plants for education, research and conservation. [web application]. 2004. Berkeley, California: The CalFlora Database [a non-profit organization]. Available from: <http://www.calflora.org>.
- [CNDDDB] see Rarefind3 reference information.
- Emmel, T. C. and J. F. Emmel. 1973. The Butterflies of Southern California. Natural History Museum of Los Angeles County Science Series No. 26.
- Hickman, J.C., editor. 1993. The Jepson manual. Berkeley: University of California Press. 1400 pp.
- Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, Department of Fish and Game. October 1986.
- Klein-Edwards Professional Services. 2006. Results, and Conclusions of Quino Checkerspot Butterfly Surveys on the Dulzura Fuel Break Located in San Diego County, California. Letter-report dated March 6, 2007.
- Mattoni, R. H. T., G. F. Pratt, T. R. Longcore, J. F. Emmel, and J. N. George. 1997. The endangered Quino checkerspot butterfly, *Euphydryas editha quino* (Lepidoptera: Nymphalidae). *Journal of Research on the Lepidoptera* 34:99-118.
- Rarefind 3 [computer program]. 2007. Sacramento (CA): State of California, the Resources Agency, Department of Fish and Game. 1 CD Rom. Accompanied by: 1 user's guide. System requirements: 386 or higher series PC, with 560K free DOS memory; 100MB free space on hard disk drive; MS-DOS version 5.0 or higher, Windows 3.1, or Windows 95.
- Sawyer, J.O. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento, CA.
- Singer, M.C., and P.R. Ehrlich. 1979. Population dynamics of the checkerspot butterfly *Euphydryas editha*. *Fortschritte der Zoologie* 25:53-60.
- Stebbins, R.C. 2003. Western Amphibians and Reptiles. Boston: Houghton-Mifflin Co. 533 pp.
- [USFWS] U.S. Fish and Wildlife Service. 2003. Final Recovery Plan for the Quino Checkerspot Butterfly (*Euphydryas editha quino*). August 11, 2003.
- [USFWS] U.S. Fish and Wildlife Service website. 2007. 2006 Quino Checkerspot Butterfly (*Euphydryas editha quino*) Monitored Reference Site Information. [http://www.fws.gov/carlsbad/Rules/QuinoDocuments/Quino htms/2007%20Quino%20monitoring%20info.htm](http://www.fws.gov/carlsbad/Rules/QuinoDocuments/Quino%20htms/2007%20Quino%20monitoring%20info.htm).
- U.S. Geological Survey. 1:24000 topographic quadrangles, 7.5-minute topographic series, Dulzura, 1988.

## **APPENDIX A**

---

Field Data Sheets

## Quino Checkerspot General Form

Survey type: Habitat Assessment/Adult SurveySurveyor: LT/SNC/LMADate: 03/04/2007

(mm/dd/yyyy)

Site Visit No: 012345678910Total site acres: 1.5 mileSite Name: Dulzura Fuel BreakSite Location: Dulzura

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin 1200	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 <u>(4-7)</u> 8-12 >12 gusts to 16	74°F
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End 13:30	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 <u>(4-7)</u> 8-12 >12 gusts to 22	73°F

Total hours surveyed: \_\_\_\_\_

Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
<u>minimal photos</u>					

a. Larval or nectar resources. Identify species.

b. Sparse = plants not touching; dense = plants touching

c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North \_\_\_\_\_  
 South \_\_\_\_\_  
 East \_\_\_\_\_  
 West \_\_\_\_\_

Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
 nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: \_\_\_\_\_

3/4/2007 Hab. Assessment

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )		
Felder's Orangetip ( <i>A. cethura</i> )		
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )		
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )		
Harford's Sulfur ( <i>C. harfordi</i> )		
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )		
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Myliatta Crescent ( <i>Phyciodes myliatta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vanessa cardui</i> )		
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. virginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )		
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melisa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Strymon melinus</i> )		
Brown Elfin ( <i>Incisalia angustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )		
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )	1	
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrargus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis funeralis</i> )	1	
Mournful Duskywing ( <i>Erynnis tritis</i> )		
Lacustra Duskywing ( <i>Erynnis brizo lacustra</i> )		



## Quino Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: L. AllenDate: 3-17-07Site Visit No. (1) 2 3 4 5 6 7 8 9 10

(mm/dd/yyyy)

Total site acres: \_\_\_\_\_

Site Name: Dulzura FBSite Location: Dulzura, CA

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin <u>1030</u>	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	<del>74°F</del> <u>75°F</u>
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End <u>1430</u>	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	<del>74°F</del> <u>85°F</u>

Total hours surveyed: 4.0

Focused Survey Acres: \_\_\_\_\_

Elev Min: 1200 ft Max: 1400 ft

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>
<i>Plantago erecta</i>	<u>1 ft<sup>2</sup></u>	<u>15 / ft<sup>2</sup></u>	<u>sparse (b)</u>	<u>N 32.63041</u> <u>W 116.77257</u>
<i>P. erecta</i>	<u>100 ft<sup>2</sup> (sparse)</u>	<u>15 / ft<sup>2</sup></u>	<u>sparse (b)</u>	<u>N 32.63088</u> <u>W 116.77217</u>
<i>Castilleja (affinis)</i>	<u>1 ft<sup>2</sup></u>	<u>10 / ft<sup>2</sup></u>	<u>1 small patch</u>	<u>N 32.63316</u> <u>W 116.77412</u>
<i>P. erecta</i>	<u>7x6/42 ft<sup>2</sup></u>	<u>7x6/42 ft<sup>2</sup></u>	<u>dense</u>	<u>N 32.63331</u> <u>W 116.77430</u>
<i>P. erecta</i>	<u>15x20/300 ft<sup>2</sup></u>	<u>50 / ft<sup>2</sup></u>	<u>sparse → dense</u>	<u>N 32.63364</u> <u>W 116.77451</u>

a. Larval or nectar resources. Identify species.

b. Sparse = plants not touching; dense = plants touching

c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North open space

South ↓

East ↓

West ↓

Distance 1 ft./mile

Distance 1 ft./mile

Distance 1 ft./mile

Distance 1 ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads

nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: \_\_\_\_\_

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. felix</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )	###	
Elder's Orangetip ( <i>A. cethura</i> )		
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Arctia rapae</i> )		
Peppy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )		
Harford's Sulfur ( <i>C. harfordi</i> )	1	
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Penelope's Checkerspot ( <i>Euphydryas chalcedona penelope</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )	11 (chrysalis)	
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mytilus Crescent ( <i>Phyciodes mytilus</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vanessa cardui</i> )		
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. virginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )	###	
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philoetes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Common Blue ( <i>Icaricia acmon</i> )	1	
Edward's Blue ( <i>Lycaeides melissa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Strymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )	1	
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )	2	
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )	###	
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis funeralis</i> )	###	
Mournful Duskywing ( <i>Erynnis tristis</i> )		
Acacia Duskywing ( <i>Erynnis brizo iaculata</i> )		

granite spiny lizard - 0

# Quino Checkerspot Detection Form

Surveyor: L. Allen Date: 3-17-07 Site Visit No: 12 3 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura Site Location: Dulzura  
FB

Time detected: 1130 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)

Temp: 76° F/C

gps location: N 32.63088 W 116.77217

elev.  
1575 ft

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 1575 ft % Slope: >10 11-25 26-50 >50

Aspect: N S E W

Distance to Water: >1,000 ft Water Type: drainage Earwigs yes no Sowbugs yes no

Veg Comm/Habitat type: Chapparal / CSS

Co-occur butterfly spp: fun. dusky wing, orange tip

Dominant plagiobothrys sp.

Plant Species present: erodium botrys, buckwheat, veronidium circutarium  
nnq

Distance to Plantago: 1 ft. No. Plants 15 Patch size 100 ft<sup>2</sup> - sparse

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

Castilleja: \_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

QCB Behavior: sit nectar mate fly chase Sex: M F Unk Wing Wear: fresh intermed worn

Comments: - looks ready to emerge from chrysalis

Nectar spp: deerweed, poprom Type substrate or soils: clay Defend area: Y/N  
flower

Number of QCB: 1 adult larva Size of occupied area: 1 ft<sup>2</sup> acres ft<sup>2</sup>

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good Excellent  
(disturbed) (native stand)

Comments: may be tracking to Plantago patch a short distance

## Surrounding land uses:

North open space

South \_\_\_\_\_

East \_\_\_\_\_

West \_\_\_\_\_

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.

# Quino Checkerspot Detection Form

Surveyor: L. Allen Date: 3-17-07 Site Visit No: 12 3 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura FB Site Location: Dulzura, CA  
off Mammoth Valley Rd.

Time detected: 1253 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)

Temp: 78 F C

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 1450 ft % Slope: >10 11-25 26-50 >50

Aspect: N S E W GPS location: N 32.63389  
W 116.77535

Distance to Water: >1000 ft Water Type: Ø Earwigs yes/no Sowbugs yes/no

Veg Comm/Habitat type: chaparral, CSS

Co-occur butterfly spp: perplex. hairst. , fun duskywing

Dominant

Plant Species present: erodium, deerweed, Arima, encelia, sanding viera  
popcorn flower, matchweed, buckwheat

Distance to Plantago: 10 ft. No. Plants 10 Patch size 25 ft<sup>2</sup>

Castilleja: \_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

QCB Behavior: sit nectar mate fly chase Sex: M F Unk Wing Wear: fresh intermed worn

Comments: Some flying, but resting on plants frequently - just emerged <sup>may have</sup>

Nectar spp: plagiobothrys sp. Type substrate or soils: clay Defend area: Y N  
deerweed

Number of QCB: 1 adult/larva Size of occupied area: 200 acres ft<sup>2</sup>

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good Excellent  
(disturbed-----native stand)

Comments: looks like just emerged - may be using large  
- ~~large~~ plantago patch across road - 300+ ft to east

Surrounding land uses:

North open space  
South \_\_\_\_\_  
East \_\_\_\_\_  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.

Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: S. Chiang Date: 03/17/2007 Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: \_\_\_\_\_ Site Name: Dulzura Site Location: Dulzura Fuel Break

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
1020	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 <u>(1-3)</u> 4-7 8-12 >12	75°F
1420	<u>clear</u> /partcloudy/overcast/fog/drizzle/shower	<1 1-3 <u>(4-7)</u> 8-12 >12	85°F
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
1420	<u>clear</u> /partcloudy/overcast/fog/drizzle/shower	<1 1-3 <u>(4-7)</u> 8-12 >12	85°F

Total hours surveyed: \_\_\_\_\_ PF: 0521363 0520882  
 Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft 3610180 3611241  
 PF: 0520027 3611425 PF: 0520138 0520151 PF: 0521414 3610393  
 Describe, map, and estimate areas surveyed below. 3611238 3611342  
 cryptantha sp: check this location for other sp. (woolly?)

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
<u>P. erecta</u>	15 x 5	50	Very sparse	115 0521362 3610183	1 cm, small, fresh barely w/ flower buds
<u>P. erecta</u>	3 x 7	< 50	Very sparse	0521369 3610314	< 1 cm. barely w/ flower buds
<u>P. erecta</u>	15 x 5	<del>50</del> < 75	Very sparse	0521172 36101078	1 cm - 5 cm some flowers fresh
<u>P. erecta</u>	40 x 3	< 125	sparse-moderate	0521167 3610697	1-5 cm. flowers - fresh
Indian paintbrush	20 x 3	3	Very sparse	0521080 3610825	
<u>P. erecta</u> (blue) dense	20 x 30	75-100	sparse - mod.	0521003 3611156	healthy, flowering heads
<u>P. erecta</u>	8 x 30	150-200	mod	0520327 3611267	X 4 cm. nice flower heads

a. Survival or nectar resources. Identify species. b. Sparse = plants not touching; dense = plants touching c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North open space / fuel break Distance \_\_\_\_\_ ft./mile  
 South open space / fuel break Distance \_\_\_\_\_ ft./mile  
 East open space / scattered rural res. Distance \_\_\_\_\_ ft./mile  
 West open space / fuel break Distance \_\_\_\_\_ ft./mile

SPTD DEWR  
 WREN TUNY  
 RTHA fophr snake  
 LEOO GREGO  
 RSHA WRA  
 CALT THUR MDC

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: existing fuel break

flowering, deerweed  
 some popcorn flower  
 few virgin  
 mustard

3/17/07 S. Chiang Dufurn QCB

[illegible]

Quino Checkerspot Detection Form

Surveyor: S. Chiang, L. Allen Date: 3/17/2007 Site Visit No. (1) 2 3 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura Site Location: Dulzura Fuel Break

Time detected: 1210 (24 hour) Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)

Temp: 77° F/C

GPS Coordinates

11 S 0521296

3610571

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 443 ft % Slope: <10 11-25 26-50 >50

Aspect: N S E W NE

E. side of road

Distance to Water: \_\_\_\_\_ ft Water Type: \_\_\_\_\_ Earwigs yes/no no Sowbugs yes/no no

Veg Comm/Habitat type: Sage scrub

Co-occur butterfly spp: Bohr's metalmark, southern blue

Dominant

Plant Species present: Artemisia californica, Eriogonum, grasses

Distance to Plantago: _____ ft.	No. Plants _____	Patch size _____ ft <sup>2</sup>
_____ ft.	No. Plants _____	Patch size _____ ft <sup>2</sup>
Castilleja: _____ ft.	No. Plants _____	Patch size _____ ft <sup>2</sup>
_____ ft.	No. Plants _____	Patch size _____ ft <sup>2</sup>

QCB Behavior: sit nectar mate fly chase Sex: M F Unk Wing Wear: fresh intermed worn

Comments: larvae 2 cm feeding on dried grasses & fresh non-native weedy sp.  
took photos & video

Nectar spp: ~~Bohr's~~ Filaree Eriogonum Type substrate or soils: clay Defend area: Y/N

Number of QCB: 1 adult/larva Size of occupied area: \_\_\_\_\_ acres ft<sup>2</sup>

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good Excellent  
(disturbed) (native stand)

Comments? \_\_\_\_\_

Surrounding land uses:

North \_\_\_\_\_  
South \_\_\_\_\_  
East \_\_\_\_\_  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.

Quino-Checkerspot General Form

Survey type: Habitat Assessment (Adult Survey)

Surveyor: L. Allen

Date: 3-25-07

Site Visit No: 103 4 5 6 7 8 9 10

(mm/dd/yyyy)

Total site acres:

Site Name: Dulzura FB

Site Location: Dulzura, CA

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin 1345	clear/partcloudy/overcast/fog/drizzle/shower	<1 (1-3) 4-7 8-12 >12	73 F
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End 1815	clear/partcloudy/overcast/fog/drizzle/shower	<1 (1-3) 4-7 8-12 >12	74 F

Total hours surveyed: 4.5 hrs.

Focused Survey Acres:

Elev Min: 1200 ft Max: 1400 ft

P. erecta, Lathyrus 10 x 70 < 75-100

Describe, map, and estimate areas surveyed below.

Plantago erecta (35 x 5) = 175 ft<sup>2</sup> 775 / ft<sup>2</sup>

moderate

0520033

3611225

11S 052040S  
UTM 3611254

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	GPS coord.
Plantago erecta	100 ft <sup>2</sup>	10 / ft <sup>2</sup>	sparse		11S 0521366 UTM 3610386
Plantago erecta	600 ft <sup>2</sup>	40 / ft <sup>2</sup>	Some areas dense, others sparse		11S 0521152 UTM 3610697
Plagiobothrys sp.	4 ft <sup>2</sup>	12 / ft <sup>2</sup>	sparse		11S 0521158 UTM 3610691
Popcorn flower	50 ft <sup>2</sup>	10 / ft <sup>2</sup>	sparse		11S 0521135 UTM 3610719
P. erecta	25 ft <sup>2</sup>	10 / ft <sup>2</sup>	Sparse		11S 0521097 UTM 3610746
P. erecta	100 ft <sup>2</sup>	10 / ft <sup>2</sup>	sparse		11S 0521068 UTM 3610716
P. erecta	50 ft <sup>2</sup>	10 / ft <sup>2</sup>	sparse		11S 0521099 UTM 3610731

Forval or nectar resources. Identify species.

P. erecta 156 ft<sup>2</sup> > 15 / ft<sup>2</sup>

sparse

11S 052044S  
UTM 3611265

Surrounding land uses (including adjoining properties):

North open space  
South  
East  
West

Distance ft./mile  
Distance ft./mile  
Distance ft./mile  
Distance ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: Species:

WETI - V LASP - 0, V RCSP - 0, V

UTKI - 11S 0520711

↓ 11S 0521066

UTM 3611289



Dulzura - 3-25-07 - L. Allen

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )		
Felder's Orangetip ( <i>A. cethura</i> )	1	(1)
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )		
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )		
Harford's Sulfur ( <i>C. harfordi</i> )		
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )	1111	(4)
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vernessa cardui</i> )		
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. virginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )		(29)
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melissa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Strymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )		(10)
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )		(38)
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis funealis</i> )		(25)
Mourning Duskywing ( <i>Erynnis tritis</i> )		
Lacustra Duskywing ( <i>Erynnis brizo lacustris</i> )		

Quino Checkerspot Detection Form

Surveyor: L. Allen Date: 3-25-07 Site Visit No: 12345678910  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura FB Site Location: Dulzura, CA

Time detected: 1257 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)

Temp: 74 F C

GPS Coordinates

11S 0521374

UTM 3610395

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 1550 ft % Slope: >10 11-25 26-50 >50 Aspect: N S E W

Distance to Water: 300 ft Water Type: Tire rut Earwigs yes/no Sowbugs yes/no

Leg Comm/Habitat type: CSS, Chaparral

Co-occur butterfly spp: funereal dusky wing, perplexing hairstreak

Dominant

Plant Species present: Eriogonum fasciculatum, A. californica

Distance to Plantago: 15 ft. No. Plants 50-100 Patch size 100 ft<sup>2</sup>

Castilleja: \_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

QCB Behavior: sit nectar mate fly chase Sex: M F Unk Wing Wear: fresh intermed worn

Comments: indiv. was sunning, then flew off to adj. ridgeline, poss. ♂

Nectar spp: goldfields, popcorn flower Type substrate or soils: clay Defend area: Y N

Number of QCB: 1 adult/larva Size of occupied area: 40x20 = 800 acres ft<sup>2</sup>

Habitat w/in 100 ft. of QCB (circle all that apply) open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good Excellent  
(disturbed) (native stand)

Comments? \_\_\_\_\_

Surrounding land uses:

North open space

South \_\_\_\_\_

East \_\_\_\_\_

West \_\_\_\_\_

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.

Quino Checkerspot Detection Form

Surveyor: L. Allen Date: 3-25-07 Site Visit No: 12345678910  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura FB Site Location: Dulzura, CA

Time detected: 1518 (24 hour) Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)  
Temp: 74° FC

GPS Coordinates  
11S 0521113

UTM 3610722

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 1400 ft % Slope: >10 11-25 26-50 >50 Aspect: N S E W

Distance to Water: >500 ft Water Type: drainage Earwigs yes no Sowbugs yes no

Veg Comm/Habitat type: css /chapparal, nng

Co-occur butterfly spp: funereal dusky wing, Behrs metal mark

Dominant

Plant Species present: E. fasciculatum, nng, A. calif., ~~erecta~~ Vigueria

Distance to Plantago:	<u>30</u> ft.	No. Plants	<u>40/A<sup>2</sup></u>	Patch size	<u>600</u> ft <sup>2</sup>
	_____ ft.	No. Plants	_____	Patch size	_____ ft <sup>2</sup>
Castilleja:	_____ ft.	No. Plants	_____	Patch size	_____ ft <sup>2</sup>
	_____ ft.	No. Plants	_____	Patch size	_____ ft <sup>2</sup>

QCB Behavior: sit nectar mate fly chase Sex: M F Unk Wing Wear: fresh interned worn

Comments: Swollen abdomen, sitting in area of nng surrounded by erio. fasc.

Nectar spp: bluedicks, pop. flower Type substrate or soils: clay Defend area: Y N

Number of QCB: 1 adult/larva Size of occupied area: 400 acres ft<sup>2</sup>

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good Excellent  
(disturbed-----native stand)

Comments? \_\_\_\_\_

Surrounding land uses:

North open space  
South \_\_\_\_\_  
East ↓  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft.  
Distance ↓ ft.  
Distance ↓ ft.  
Distance ↓ ft.

# Quino Checkerspot Detection Form

Surveyor: L Allen Date: 3-25-07 Site Visit No: 12345678910  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura FB Site Location: Dulzura, CA

Time detected: 1525 (24 hour) Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)

Temp: 73° (F)C

GPS Coordinates  
11S 0521127

UTM 3610725

Topo Description: T R 1/4 of 1/4 Sec

Elev: 1400 ft % Slope: >10 11-25 26-50 >50 Aspect: N S E (W)

Distance to Water: \_\_\_\_\_ ft Water Type: \_\_\_\_\_ Earwigs yes/no Sowbugs yes/no

Veg Comm/Habitat type: CSS / chaparral

Co-occur butterfly spp: funereal dusky wing, southern blue

Dominant

Plant Species present: erigonum fasciculatum, nng, black mustard, A. californica

Distance to Plantago: 30 ft. No. Plants 40/H<sup>2</sup> Patch size 600 ft<sup>2</sup>

Castilleja: \_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

QCB Behavior: (sit) nectar mate fly chase Sex: M (F) Unk Wing Wear: (fresh) intermed worn

Comments: funereal chased q, q QCB flew over to grassy area - very close to other q

Nectar spp: popcorn flower, blue daisy Type substrate or soils: clay Defend area: Y (N)

Number of QCB: 1 (adult) larva Size of occupied area: 400 acres (ft<sup>2</sup>)

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair (Good) Excellent  
(disturbed) (native stand)

Comments? \_\_\_\_\_

Surrounding land uses:

North open space  
South \_\_\_\_\_  
East ↓  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft.  
Distance ↓ ft.  
Distance ↓ ft.  
Distance \_\_\_\_\_ ft.

Quino Checkerspot Detection Form

Surveyor: L. Allen Date: 3-25-07 Site Visit No: 123 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura, FB Site Location: Dulzura, CA

Time detected: 1545 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <11-3 4-7 8-12 >12 (Beaufort)

Temp: 73° (F) C

GPS Coordinates

11S 0521079

UTM 3610730

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 1400 ft % Slope: >10 11-25 26-50 >50 Aspect: N S (E) W

Distance to Water: >1000 ft Water Type: drainage Earwigs yes (no) Sowbugs yes (no)

Veg Comm/Habitat type: CSS / chaparral

Co-occur butterfly spp: funereal duskywing, S. blue, perplexing hairstreak

Dominant

Plant Species present: E. fasc., nny, black mustard, A. calif.

Distance to Plantago: 30 ft. No. Plants 40/ft<sup>2</sup> Patch size 600 ft<sup>2</sup>

Castilleja: \_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

QCB Behavior: sit nectar mate fly chase Sex: (M) F Unk Wing Wear: fresh (intermed) worn

Comments: Lots of QCB concentrated in this area,

Nectar spp: popcorn flower, blue dais Type substrate or soils: clay Defend area: (Y) N

Number of QCB: 1 (adult) larva Size of occupied area: 500 acres (ft<sup>2</sup>)

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good (Excellent)  
(disturbed \_\_\_\_\_ native stand)

Comments? \_\_\_\_\_

Surrounding land uses:

North open space  
South \_\_\_\_\_  
East \_\_\_\_\_  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.

## Quino Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: S. Ching Date: 03/25/2007 Site Visit No: 1 23 4 5 6 7 8 9 10  
(mm/dd/yyyy)Total site acres: \_\_\_\_\_ Site Name: Dulzura Site Location: Dulzura Fuel Break

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin <u>1345</u>	<u>clear</u> /partcloudy/overcast/fog/drizzle/shower	<1 1-3 <u>4-7</u> 8-12 >12	<u>73°F</u>
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End <u>1715</u>	<u>clear</u> /partcloudy/overcast/fog/drizzle/shower	<u>&lt;1</u> 1-3 4-7 8-12 >12	<u>74°F</u>

Total hours surveyed: \_\_\_\_\_  
Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
<u>Plantago</u>	<u>3x5</u>	<u>&lt; 65</u>	<u>space</u>	<u>0521407</u> <u>3610378</u>	<u>flower heads present</u>
<u>P. erecta</u>	<u>6x15</u>	<u>&lt; 120</u>	<u>moderate</u>	<u>0521352</u> <u>3610187</u>	<u>flower heads present</u>
<u>P. erecta</u>	<u>3x10</u>	<u>&lt; 50</u>	<u>sparse</u>	<u>0521333</u> <u>3610514</u>	<u>flower heads present</u>
<u>Castilleja affinis</u>	<u>2x20</u>	<u>5-10</u>	<u>sparse</u>	<u>0521319</u> <u>3610538</u>	
<u>P. erecta</u>	<u>45x30</u>	<u>200-250</u>	<u>dense</u>	<u>0521310</u> <u>3610556</u>	<u>herbivory patch</u>
<u>C. affinis</u>	<u>10</u>	<u>10</u>	<u>sparse</u>	<u>0521187</u> <u>3610645</u>	

<sup>a</sup> Larval or nectar resources. Identify species.<sup>b</sup> Sparse = plants not touching; dense = plants touching<sup>c</sup> Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

 North Open space  
 South \_\_\_\_\_  
 East \_\_\_\_\_  
 West \_\_\_\_\_

 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile

Rattlesnake weed  
Lepidium  
Cryptantha  
Platystemon  
Blue ticks  
Deerweed  
Fileas  
Ground phlox  
Red maids

 Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
 nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: BLM Fuel Break

3/25/2007 S. Ching Antzara QCB 2

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orange-tips</b>		
Sara Orange-tip ( <i>Anthocharis sara</i> )	1	(1)
Felder's Orange-tip ( <i>A. cethura</i> )	1	(1)
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )		
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )		
Harford's Sulfur ( <i>C. harfordi</i> )		
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )	1111	(4)
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vannessa cardui</i> )	1	(1)
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. virginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )	44 11	(7)
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycæides melisa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Strymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )	111	(5)
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )	111 111 111	(15)
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis funeralis</i> )	1111 111 11	(17)
Mournful Duskywing ( <i>Erynnis tristis</i> )		
Lacustra Duskywing ( <i>Erynnis brizo lacustris</i> )		

Quino Checkerspot Detection Form

Surveyor: S. Ching Date: 3/25/2007 Site Visit No: 1 (2) 3 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura Site Location: Dulzura Fuel Break

Time detected: 1525 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <1 1-3 (4-7) 8-12 >12 (Beaufort)

Temp: 75 °F

GPS Coordinates

0521171

361a72

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 4360 <sup>M</sup> % Slope: >10 11-25 26-50 >50

Aspect: N S E W

(N/NW)

Distance to Water: \_\_\_\_\_ ft Water Type: \_\_\_\_\_ Earwigs yes/no Sowbugs yes/no

Veg Comm/Habitat type: Sage scrub

Co-occur butterfly spp: Durkin

Dominant

Plant Species present: Eriogonum fasciculatum, Artemisia californica

Distance to Plantago:	<u>20</u> ft.	No. Plants	<u>31000</u>	Patch size	<u>50-70</u> ft <sup>2</sup>
	_____ ft.	No. Plants	_____	Patch size	_____ ft <sup>2</sup>
Castilleja:	_____ ft.	No. Plants	_____	Patch size	_____ ft <sup>2</sup>
	_____ ft.	No. Plants	_____	Patch size	_____ ft <sup>2</sup>

QCB Behavior: (sit) nectar mate fly chase Sex: (M) F Unk Wing Wear: fresh (interned) worn

Comments: detected in middle of dirt road Used veg. on W. side.

Nectar spp: Bluebirds Type substrate or soils: clay Defend area: Y (N)

Number of QCB: 1 (adult)/larva Size of occupied area: \_\_\_\_\_ acres ft<sup>2</sup>

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good Excellent  
(disturbed-----native stand)

Comments? \_\_\_\_\_

Surrounding land uses:

North open space  
South \_\_\_\_\_  
East \_\_\_\_\_  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.



Quino Checkerspot Detection Form

Surveyor: S. Chiang Date: 3/25/2007 Site Visit No: 12345678910  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura Site Location: Dulzura Fuel Break

Time detected: 1545 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)

Temp: 75° F/C

GPS Coordinates

0521143

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ 3610722

Elev: 429 m % Slope: >10 11-25 26-50 >50 Aspect: N S E W N/nw

Distance to Water: \_\_\_\_\_ ft Water Type: \_\_\_\_\_ Earwigs yes/no \_\_\_\_\_ Sowbugs yes/no \_\_\_\_\_

Veg Comm/Habitat type: Sage scrub

Co-occur butterfly spp: Quino, Behr's metalmark, orange tips

Dominant

Plant Species present: Eriogonum fasciculatum, Artemisia californica

Distance to Plantago: 45 ft. No. Plants 7000 Patch size 50-70 ft<sup>2</sup>

Castilleja: \_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

QCB Behavior: sit nectar mate fly chase Sex: M F Unk Wing Wear: fresh intermed worn

Comments: observed on dirt road

Nectar spp: Blue dicks Type substrate or soils: clay Defend area: Y/N

Number of QCB: 1 adult/larva Size of occupied area: 80 acres ft<sup>2</sup>

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other?

Habitat Quality: Poor Fair Good Excellent  
(disturbed-----native stand)

Comments: edge road of plateau - high Quino activity.

Surrounding land uses:

North open space  
South \_\_\_\_\_  
East \_\_\_\_\_  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.

Quino Checkerspot Detection Form

Surveyor: S. Chiang Date: 03/25/2007 Site Visit No: 1 (2) 3 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura Site Location: Dulzura Fuel Break

Time detected: 1505 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <1 1-3 (4-7) 8-12 >12 (Beaufort)

Temp: 75 (F) (C)

GPS Coordinates

0521310

3610556

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 447 <sup>m</sup> % Slope: >10 11-25 26-50 >50

Aspect: N S E W (NW)

Distance to Water: \_\_\_\_\_ ft Water Type: \_\_\_\_\_ Earwigs yes/no Sowbugs yes/no

Veg Comm/Habitat type: Sage scrub

Co-occur butterfly spp: Sage scrub

Dominant

Plant Species present: Erigeron, Artemisia

Distance to Plantago: \_\_\_\_\_ ft.

No. Plants 200/4 Patch size 290 ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

Castilleja: 200 ft.

No. Plants 20 Patch size 10 ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

QCB Behavior: (sit) nectar mate (fly) chase Sex: (M) F Unk Wing Wear: (fresh) intermed worn

Comments: flew off w/in a few minutes of detection.

Nectar spp: bluebirds Type substrate or soils: clay Defend area: Y/N (N)

Number of QCB: 1 (adult/larva) Size of occupied area: \_\_\_\_\_ acres ft<sup>2</sup>

Habitat w/in 100 ft. of QCB (circle all that apply): (open soils) (hilltop) (ridge) (Plantago) (Castilleja) (soil crusts)  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good (Excellent)  
(disturbed) (native stand)

Comments: large patch of plantago, largest patch on E. side of fuel break so far.

Surrounding land uses:

North open space  
South "  
East "  
West "

Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.

Quino Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: L. Allen Date: 4-01-07 Site Visit No: 1 23 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total site acres: \_\_\_\_\_ Site Name: Dulzura, FB Site Location: Dulzura, CA

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
begin 1225	clear/ partcloudy/overcast/fog/drizzle/shower	<1 <u>3</u> <u>4-7</u> 8-12 >12	78°F
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
1600	clear/ partcloudy/overcast/fog/drizzle/shower	<1 <u>3</u> <u>4-7</u> 8-12 >12	78°F

Total hours surveyed: 3.5  
Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
Indian paintbrush	1 ft <sup>2</sup> (3 patches)	3/ ft <sup>2</sup>	sparse (inclumps)	1150521188 UTM 3610643	
<i>A. erecta</i>	30 ft <sup>2</sup>	10/ ft <sup>2</sup>	sparse	1150519932 UTM 3611548	

<sup>a</sup> For larval or nectar resources. Identify species. <sup>b</sup> Sparse = plants not touching; dense = plants touching <sup>c</sup> Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North	<u>open space</u>	Distance	<u>      </u> ft./mile
South	<u>      </u>	Distance	<u>      </u> ft./mile
East	<u>      </u>	Distance	<u>      </u> ft./mile
West	<u>      </u>	Distance	<u>      </u> ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: Species:  
RES-D SPTD B66N  
WRTI

Quino Checkerspot Detection Form

Surveyor: L. Allen Date: 4-1-07 Site Visit No: 1 2 (3) 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura FB Site Location: Dulzura, CA

Time detected: 1330 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)

Temp: 80° D/C

GPS Coordinates  
113 052 1189

UTM 3610629

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 1460 ft % Slope: >10 11-25 26-50 >50 Aspect: N S (E) W

Distance to Water: >1000 ft Water Type: unnamed drainage Earwigs yes/no Sowbugs yes/no

Veg Comm/Habitat type: CSS/open chaparral

Co-occur butterfly spp: funeral dusky wing, Behrs metal mark

Dominant

Plant Species present: San Diego vigiera, Erig. fasciculatum

Distance to Plantago:	<u>20</u> ft.	No. Plants <u>750</u>	Patch size <u>15/1</u> ft <sup>2</sup>
	<u>30</u> ft.	No. Plants <u>&gt;100</u>	Patch size <u>400</u> ft <sup>2</sup>
Castilleja:	_____ ft.	No. Plants _____	Patch size _____ ft <sup>2</sup>
	_____ ft.	No. Plants _____	Patch size _____ ft <sup>2</sup>

QCB Behavior: sit nectar. mate fly chase Sex: M/F Unk Wing Wear: fresh intermed worn

Comments: Landed on SD vigiera, then flew off to opposite side of road, downsl

Nectar spp: bluebirds Type substrate or soils: clay/rocky Defend area: Y (N)

Number of QCB: 1 adult/larva Size of occupied area: 1,000 acres (ft<sup>2</sup>)

Habitat w/in 100 ft. of QCB (circle all that apply): open soils hilltop ridge Plantago Castilleja soil crusts  
roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good Excellent - Some nng  
(disturbed) (native stand)

Comments? ♂ using a large area on both sides of road

Surrounding land uses:

North open space  
South \_\_\_\_\_  
East \_\_\_\_\_  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.  
Distance \_\_\_\_\_ ft.

4-1-07

[illegible]

# Quino Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: S. Chiang

Date: 04/01/2007

Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: \_\_\_\_\_

Site Name: Dulzura

Site Location: Dulzura Fuel Break

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin <u>1220</u>	<u>clear</u> partcloudy/overcast/fog/drizzle/shower	<1 <u>1-3</u> 4-7 8-12 >12	<u>78°F</u>
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
<u>1330</u>	<u>clear</u> partcloudy/overcast/fog/drizzle/shower	<1 <u>1-3</u> 4-7 8-12 >12	<u>86°F</u>
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End <u>1600</u>	<u>clear</u> partcloudy/overcast/fog/drizzle/shower	<1 1-3 <u>4-7</u> 8-12 >12	<u>78°F</u>

Total hours surveyed: \_\_\_\_\_

Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

most Plantago still looks good green, flower structures.

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
<u>Lasianthus californicus</u>	<u>150</u>	<u>&lt; 40</u>	<u>sparse</u>	<u>0521365</u> <u>3610389</u>	<u>looking crispy</u>
<u>Plantago erecta</u>	<u>6 x 40</u>	<u>&lt; 75</u>	<u>sparse</u>	<u>0519970</u> <u>3611501</u>	
<u>P. erecta</u>	<u>20 x <del>30</del></u>	<u>&lt; 250</u>	<u>moderate-dense</u>	<u>0519953</u> <u>3611515</u>	
<u>L. californicus</u>	<u>60 x 10</u>	<u>&lt; 100</u>	<u>moderate</u>	<u>0519894</u> <u>3611558</u>	<u>looking crispy</u>

<sup>a</sup> Larval or nectar resources. Identify species.

<sup>b</sup> Sparse = plants not touching; dense = plants touching

<sup>c</sup> Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North open space  
 South \_\_\_\_\_  
 East \_\_\_\_\_  
 West \_\_\_\_\_

Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile

western fence lizard  
Tidy tips more abundant  
@ northern portion

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
 nectar clay soils rock outcrops

Conditions: (e.g. grazing agriculture sowbugs/earwigs recent fire grading)

Other: fuel break

S. Chiang QCB #3, Dulzura 4/1/2007

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )	1	(1)
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )	1	(1)
Felder's Orangetip ( <i>A. cethura</i> )	11	(2)
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )		
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )		
Harford's Sulfur ( <i>C. harfordi</i> )		
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )	1	(1)
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vanessa cardui</i> )		
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. virginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )		(17)
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melisa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Strymon melinus</i> )		
Brown Elfin ( <i>Incisalia angustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )		(9)
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )		(56)
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Ervinis funeralis</i> )		(19)
Mournful Duskywing ( <i>Ervinis tristis</i> )		
Lacustra Duskywing ( <i>Ervinis brizo lacustris</i> )		

# Quino Checkerspot Detection Form

Surveyor: S. Chiang Date: 04/01/2007 Site Visit No: 1 2 3 4 5 6 7 8 9 10  
(mm/dd/yyyy)

Total acres: \_\_\_\_\_ Site Name: Dulzura Site Location: Dulzura Fuel Break

Time detected: 1330 Sky Condition: clear Part Cloudy Overcast Fog Drizzle Showers  
(24 hour)

Wind: <1 1-3 4-7 8-12 >12 (Beaufort)

Temp: 86° F C

GPS Coordinates

0521070

3010726

Topo Description: T \_\_\_\_\_ R \_\_\_\_\_ 1/4 of \_\_\_\_\_ 1/4 Sec \_\_\_\_\_

Elev: 435 <sup>m</sup> % Slope: >10 11-25 26-50 >50 plateau Aspect: N S E W

Distance to Water: \_\_\_\_\_ ft Water Type: \_\_\_\_\_ Earwigs yes/no Sowbugs yes/no

Veg Comm/Habitat type: safe scrub

Co-occur butterfly spp: pepperling Behr's heron southern blue auroral duskywing

Dominant

Plant Species present: Artemisia californica Eriogonum fasciculatum Viguiera

Distance to Plantago: 5-10 ft. No. Plants 1000's Patch size 2000 ft<sup>2</sup> entire plateau

Castilleja: \_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

\_\_\_\_\_ ft. No. Plants \_\_\_\_\_ Patch size \_\_\_\_\_ ft<sup>2</sup>

QCB Behavior: sit nectar mate fly chase Sex: M F Unk Wing Wear: fresh intermed worn

Comments: actively hilltopping chasing other butterflies

Nectar spp: Blue dicks popon fl Type substrate or soils: clay Defend area: Y N

Number of QCB: 1 (adult/larva) Size of occupied area: 300-400 acres (ft<sup>2</sup>)

Habitat w/in 100 ft. of QCB (circle all that apply) open soils hilltop ridge Plantago Castilleja soil crusts  
old roads nectar clay soils rock outcrops recent fire grading other? \_\_\_\_\_

Habitat Quality: Poor Fair Good Excellent  
(disturbed-----native stand)

Comments? \_\_\_\_\_

Surrounding land uses:

North \_\_\_\_\_

South \_\_\_\_\_

East \_\_\_\_\_

West \_\_\_\_\_

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.

Distance \_\_\_\_\_ ft.



Quino Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: L. Allen

Date: 4-7-07  
(mm/dd/yyyy)

Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Location: \_\_\_\_\_

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin <u>1400</u>	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 <u>4-7</u> 8-12 >12	<u>70°F</u>
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End <u>1645</u>	clear/ partcloudy/overcast/fog/drizzle/shower	<1 <u>1-3</u> 4-7 8-12 >12	<u>65°F</u>

Total hours surveyed: \_\_\_\_\_

Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

QCB

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
<u>P. erecta</u>	<u>100 ft<sup>2</sup></u>	<u>35/ft<sup>2</sup></u>	<u>sparse</u>	<u>11S 0521299</u> <u>UTM 3410187</u>	

<sup>a</sup> Larval or nectar resources. Identify species.

<sup>b</sup> Sparse= plants not touching; dense = plants touching

<sup>c</sup> Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North Fuel break / open space

Distance \_\_\_\_\_ ft./mile

South \_\_\_\_\_

Distance \_\_\_\_\_ ft./mile

East \_\_\_\_\_

Distance \_\_\_\_\_ ft./mile

West \_\_\_\_\_

Distance \_\_\_\_\_ ft./mile

Habitat onsite (circle) open soils hilltop ridge Plantago Castilleja soil crusts old roads

nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: \_\_\_\_\_

bees - 1111  
fun - 1

LA

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )		
Felder's Orangetip ( <i>A. cethura</i> )		
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )		
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )		
Harford's Sulfur ( <i>C. harfordi</i> )		
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )		
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vanessa cardui</i> )		
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. virginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Angiewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )		
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melisa samuelis</i> )		
Pugmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Strymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )	1	
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )	HHH HHH HHH (15)	
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis tenebralis</i> )	11	
Mournful Duskywing ( <i>Erynnis tritis</i> )		
Lacustra Duskywing ( <i>Erynnis brizo lacustris</i> )		

## Quino-Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: S. ChiangDate: 04/07/2007  
(mm/dd/yyyy)

Site Visit No: 1 2 3 ④ 5 6 7 8 9 10

Total site acres: \_\_\_\_\_

Site Name: DulzuraSite Location: Dulzura Fuel Break

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin <u>1415</u>	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 ④ 4-7 8-12 >12	<u>70°F</u>
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End <u>1615</u>	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 ① 1-3 4-7 8-12 >12	<u>65°F</u>

Total hours surveyed: \_\_\_\_\_

Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

① QCB

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
<u>Plantago erecta</u>	<u>10 ft<sup>2</sup></u>	<u>&lt; 60</u>	<u>sparse</u>	<u>0520798</u> <u>3611184</u>	

<sup>a</sup> Larval or nectar resources. Identify species.<sup>b</sup> Sparse= plants not touching; dense = plants touching<sup>c</sup> Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North Fuel break / open space

South \_\_\_\_\_

East \_\_\_\_\_

West ↓

Distance \_\_\_\_\_ ft./mile

Distance \_\_\_\_\_ ft./mile

Distance \_\_\_\_\_ ft./mile

Distance \_\_\_\_\_ ft./mile

RCSP 0521404

361 ~~10352~~

BASW 0521143

WTKI 3610734

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roadsnectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: \_\_\_\_\_

tidy tips now flowering in  
southern portion of fuel  
break.preying mantis (Timidake)  
stick mantis?

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )		
Felder's Orangetip ( <i>A. cethura</i> )		
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )		
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )		
Harford's Sulfur ( <i>C. harfordi</i> )		
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )		
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vanessa cardui</i> )		
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. virginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )		
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melisa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Strymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )		
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )	III III III III	(18)
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis funeralis</i> )	1	(1)
Mourful Duskywing ( <i>Erynnis tristis</i> )		
Lacustra Duskywing ( <i>Erynnis brizo lacustra</i> )		

Quino-Checkerspot General Form

Survey type: Habitat Assessment/ Adult Survey

Surveyor: L. Allen

Date: 4-14-07

(mm/dd/yyyy)

Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: \_\_\_\_\_

Site Name: \_\_\_\_\_

Site Location: \_\_\_\_\_

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
begin <u>1235</u>	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	< <u>1-3</u> 4-7 8-12 >12	<u>73°F</u>
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
end <u>1500</u>	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1- <u>3</u> 4-7 8-12 >12	<u>73°F</u>

Total hours surveyed: \_\_\_\_\_

Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

QCB

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	

a. Survival or nectar resources. Identify species.

b. Sparse = plants not touching; dense = plants touching

c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North open space  
 South \_\_\_\_\_  
 East \_\_\_\_\_  
 West ↓

Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
 nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

some Plantago areas brown

Other: Species:

CATH

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )	I (1)	
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )		
Felder's Orangetip ( <i>A. cethura</i> )		
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )	I (1)	
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )	III (3)	
Harford's Sulfur ( <i>C. harfordi</i> )		
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaiidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )		
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vanessa cardui</i> ) <del>Vanessa sp.</del>	I (1)	
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. virginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )	II (2)	
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melisa samuelis</i> )		
Pugmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Stymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )		
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )		(32)
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erannis funeralis</i> )		(5)
Mournful Duskywing ( <i>Erannis tristis</i> )		
Lacustra Duskywing ( <i>Erannis orizo lacustris</i> )		

Quino-Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: S. Chiang

Date: 04/14/2007  
(mm/dd/yyyy)

Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: \_\_\_\_\_

Site Name: Dulzura

Site Location: Dulzura Fuel Break

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin <u>1235</u>	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 <u>3</u> 4-7 8-12 >12	<u>73°F</u>
	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End <u>1500</u>	clear/ <u>partcloudy</u> /overcast/fog/drizzle/shower	<1 1-3 <u>4-7</u> 8-12 >12	<u>73°F</u>

Total hours surveyed: \_\_\_\_\_

Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

QCB

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
<u>Plantago erecta</u>	<u>3 x 30</u>	<u>100</u>	<u>moderate</u>	<u>0496900</u> <u>3643615</u>	<u>tall flower heads</u>
<u>Owl's clover</u>	<u>5 x 15</u>	<u>&lt; 10</u>	<u>sparse</u>	<u>0520463</u> <u>3611276</u>	

a. Larval or nectar resources. Identify species.

b. Sparse= plants not touching; dense = plants touching

c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North open space  
South \_\_\_\_\_  
East \_\_\_\_\_  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft./mile  
Distance \_\_\_\_\_ ft./mile  
Distance \_\_\_\_\_ ft./mile  
Distance \_\_\_\_\_ ft./mile

BCSP  
LABU

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: \_\_\_\_\_

S. Chiang QCB #5 4/14/2007 Dulzura

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )		
Felder's Orangetip ( <i>A. cethura</i> )		
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )	11	②
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )	1	①
Harford's Sulfur ( <i>C. harfordi</i> )		
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaiidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )		
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vanessa cardui</i> )	1	① Vanessa sp. ②
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. viginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )	11	②
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melisa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Strymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )	1	①
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )		⑤⑧
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis funeralis</i> )		⑨
Mournful Duskywing ( <i>Erynnis tristis</i> )		
Lacustra Duskywing ( <i>Erynnis brizo lacustra</i> )		



Quino-Checkerspot General Form

Survey type: Habitat Assessment Adult Survey

Surveyor: L. Allen

Date: 4-28-07

Site Visit No: 1 2 3 4 567 8 9 10

(mm/dd/yyyy)

Total site acres: \_\_\_\_\_

Site Name: Dulzura FB Site Location: Dulzura, CA

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin <u>1250</u>	<u>clear</u> /partcloudy/overcast/fog/drizzle/shower	<1 <u>1-3</u> 4-7 8-12 >12	<u>94°</u>
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End <u>1500</u>	<u>clear</u> /partcloudy/overcast/fog/drizzle/shower	<1 1-3 <u>4-7</u> 8-12 >12	<u>90° F</u>

Total hours surveyed: \_\_\_\_\_

Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	
<u>Castilleja affinis</u>	<u>20 ft<sup>2</sup></u>	<u>5/ft<sup>2</sup></u>	<u>sparse</u>	<u>115.0521085</u>	<u>UTM 8610834</u>

<sup>a</sup> Larval or nectar resources. Identify species.

<sup>b</sup> Sparse = plants not touching; dense = plants touching

<sup>c</sup> Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North Open Space  
 South \_\_\_\_\_  
 East \_\_\_\_\_  
 West ↓

Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile  
 Distance \_\_\_\_\_ ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads

nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: Species:

LEGO  
TUVU

4/28/07 - Dulzura 1A

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio eurymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )		
Felder's Orangetip ( <i>A. cethura</i> )		
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )	11	
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )		
Harford's Sulfur ( <i>C. harfordi</i> )	11	
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennei</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )		
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vannessa cardui</i> )		
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. viginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Anglewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )	1	
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melisa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Shrymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )		
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )		
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis funeralis</i> )		
Mournful Duskywing ( <i>Erynnis tritis</i> )		
Lacustra Duskywing ( <i>Erynnis brizo iaculata</i> )		

(45)

Quino-Checkerspot General Form

Survey type: Habitat Assessment/Adult Survey

Surveyor: S. Ching

Date: 04/28/2007  
(mm/dd/yyyy)

Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: \_\_\_\_\_

Site Name: Dulzura

Site Location: Dulzura Fuel Break

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin <u>1250</u>	<u>clear</u> partcloudy/overcast/fog/drizzle/shower	<1 <u>1-3</u> 4-7 8-12 >12	<u>94° F</u>
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End <u>1500</u>	<u>clear</u> partcloudy/overcast/fog/drizzle/shower	<1 1-3 <u>4-7</u> 8-12 >12	<u>90° F</u>

Total hours surveyed: \_\_\_\_\_

Focused Survey Acres: \_\_\_\_\_ Elev Min: \_\_\_\_\_ ft Max: \_\_\_\_\_ ft

QCB

Describe, map, and estimate areas surveyed below.

Host Plants <sup>a</sup>	Patch Size (ft <sup>2</sup> )	No Plants/ft <sup>2</sup>	Sparse/Dense <sup>b</sup>	Map ID <sup>c</sup>	

a. Larval or nectar resources. Identify species.

b. Sparse= plants not touching; dense = plants touching

c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North open space  
South \_\_\_\_\_  
East \_\_\_\_\_  
West \_\_\_\_\_

Distance \_\_\_\_\_ ft./mile  
Distance \_\_\_\_\_ ft./mile  
Distance \_\_\_\_\_ ft./mile  
Distance \_\_\_\_\_ ft./mile

nectar sources starting to dry / die down

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads  
nectar clay soils rock outcrops

Conditions: (e.g., grazing agriculture sowbugs/earwigs recent fire grading)

Other: \_\_\_\_\_

S. Chiang 04/28/2007 Dulzura QCB 6

Butterflies Observed (larvae or adults)	Number	Comments
<b>Papilionidae-Swallowtails</b>		
Pale Swallowtail ( <i>Papilio erymedon</i> )		
Anise Swallowtail ( <i>P. zelicaon</i> )		
Western Tiger Swallowtail ( <i>P. rutulus</i> )		
<b>Pieridae-Whites, Sulfurs, &amp; Orangetips</b>		
Sara Orangetip ( <i>Anthocharis sara</i> )		
Felder's Orangetip ( <i>A. cethura</i> )		
Grinnell's Marble ( <i>A. lanceolata australis</i> )		
Cabbage White ( <i>Artogeia rapae</i> )	111	(3)
Sleepy Orange ( <i>Eurema nicippe</i> )		
Common White ( <i>Pontia protodice</i> )		
California Dogface ( <i>Zerene eurydice</i> )		
Alfalfa Butterfly ( <i>Colias eurytheme</i> )	11	(2)
Harford's Sulfur ( <i>C. harfordi</i> )	1111	(1)
<b>Satyrinae-Satyrids</b>		
California Ringlet ( <i>Coenonympha californica</i> )		
<b>Danaidae-Milkweed Butterflies</b>		
Monarch ( <i>Danaus plexippus</i> )		
Queen ( <i>D. gilippus</i> )		
<b>Nymphalidae-Brush Footed Butterflies</b>		
Henne's Checkerspot ( <i>Euphydryas chalcedona hennel</i> )		
Chalcedon Checkerspot ( <i>E. chalcedona chalcedona</i> )		
Quino Checkerspot ( <i>E. editha quino</i> )		
Gabb's Checkerspot ( <i>Charidryas gabbii</i> )		
Leanira Checkerspot ( <i>Thessalia leanira wrighti</i> )		
Mylitta Crescent ( <i>Phyciodes mylitta</i> )		
California Patch ( <i>Chlosyne californica</i> )		
Painted Lady ( <i>Vanessa cardui</i> )		
West Coast Lady ( <i>V. annabella</i> )		
Virginia Lady ( <i>V. viginensis</i> )		
Red Admiral ( <i>V. atalanta</i> )		
Buckeye ( <i>Junonia coenia</i> )		
Mourning Cloak ( <i>Nymphalis antiopa</i> )		
California Tortoiseshell ( <i>Nymphalis californica</i> )		
California Sister ( <i>Adelpha bredowii californica</i> )		
Satyr Angewing ( <i>Polygonia satyrus</i> )		
Lorquin's Admiral ( <i>Basilarchia lorquini</i> )		
<b>Blues</b>		
Western Tailed Blue ( <i>Everes amyntula</i> )		
Southern Blue ( <i>Glaucopsyche lygdamus australis</i> )		
Echo Blue ( <i>Celastrina ladon echo</i> )		
Sonoran Blue ( <i>Philotes sonorensis</i> )		
Marine Blue ( <i>Leptotes marina</i> )		
Acmon Blue ( <i>Icaricia acmon</i> )		
Edward's Blue ( <i>Lycaeides melisa samuelis</i> )		
Pygmy Blue ( <i>Brephidium exilis</i> )		
<b>Hairstreaks</b>		
Gray Hairstreak ( <i>Stymon melinus</i> )		
Brown Elfin ( <i>Incisalia augustinus</i> )		
Perplexing Hairstreak ( <i>Callophrys perplexa</i> )		
Great Purple Hairstreak ( <i>Atlides halesus</i> )		
<b>Metalmarks</b>		
Behr's Metalmark ( <i>Apodemia mormo virgulti</i> )	111 111 111 111 111 111	(30)
Wright's Metalmark ( <i>Calephelis wrightii</i> )		
<b>Hesperiidae-Common Skippers</b>		
Common Checkered Skipper ( <i>Pyrgus communis</i> )		
<b>Duskywings</b>		
Funereal Duskywing ( <i>Erynnis funeralis</i> )		
Mournful Duskywing ( <i>Erynnis tristis</i> )		

**APPENDIX B**

Plant Species Observed

**APPENDIX B**  
**Plant Species Documented at the Dulzura Fuel Break, 2007**

**Common Name**

**Scientific Name**

**PLANTS:**

laurel sumac	<i>Malosma laurina</i>
California sagebrush	<i>Artemisia californica</i>
yellow-rayed goldfields	<i>Lastenia labrata</i>
tidy-tips	<i>Layia platyglossa</i>
common dandelion	<i>Taraxacum officinale</i>
cryptantha	<i>Cryptantha</i> sp.
California popcorn flower	<i>Plagiobothrys collinus</i>
combseed	<i>Pectocarya</i> spp.
spurge	<i>Chamaesyce</i> spp.
western bindweed	<i>Calystegia macrostegia</i>
wreathplant	<i>Stephanomeria diegensis</i>
rattlesnake weed	<i>Chamaesyce albomarginata</i>
Johnny jump-ups	<i>Viola pedunculata</i>
deerweed	<i>Lotus scoparius</i>
miniature lupine	<i>Lupinus bicolor</i>
chaparral pea	<i>Pickeringia montana</i>
red-stemmed filaree	<i>Erodium cicutarium</i>
broad-leaf filaree	<i>Erodium botrys</i>
scarlet monkeyflower	<i>Mimulus cardinalis</i>
Catalina mariposa lily	<i>Calochortus catalinae</i>
bush mallow	<i>Malacothamnus</i> spp.
San Diego County viguiera	<i>Viguiera laciniata</i>
California everlasting	<i>Gnaphalium californicum</i>
wishbone bush	<i>Mirabilis bigelovii</i>
dudleya	<i>Dudleya</i> spp.
western plantain	<i>Plantago erecta</i>
wooly plantain	<i>Plantago patagonica</i>
Australian saltbush	<i>Atriplex semibaccata</i>
shrubby butterweed	<i>Senecio flaccidus</i>
California buckwheat	<i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i>
matchweed	<i>Gutierrezia</i> spp.
red maids	<i>Calandrinia ciliata</i>
scarlet pimpernel	<i>Anagallis arvensis</i>
chamise	<i>Adenostoma fasciculatum</i>
coast paintbrush	<i>Castilleja affinis</i>
purple owl's-clover	<i>Castilleja exserta</i>
chaparral nightshade	<i>Solanum xanti</i>
encelia	<i>Encelia</i> spp.
blue dicks	<i>Dichelostemma capitatum</i>
Our Lord's candle	<i>Yucca whipplei</i>
brome	<i>Bromus</i> spp.
wheat	<i>Hordeum</i> spp.
fescue	<i>Vulpia</i> spp.

<sup>1</sup> = QCB larval host plant

<sup>2</sup> = QCB nectar plant

**APPENDIX C**

Wildlife Species Detected or Observed

**APPENDIX C**  
**Wildlife Species Documented at the Dulzura Fuel Break, 2007**

<u>Common Name</u>	<u>Scientific Name</u>
<b>Reptiles:</b>	
side-blotched lizard	<i>Uta stansburiana</i>
granite spiny lizard	<i>Sceloporus orcutti</i>
western whiptail	<i>Aspidoscelis tigris</i>
garter snake	<i>Thamnophis</i> sp.
southern Pacific rattlesnake	<i>Crotalus viridis helleri</i>
gopher snake	<i>Pituophis catenifer</i>
<b>Birds:</b>	
Costa's hummingbird	<i>Calypte costae</i>
wren	<i>Chamaea fasciata</i>
lazuli bunting	<i>Passerina amoena</i>
Southern California rufous-crowned sparrow*	<i>Aimophila ruficeps canescens</i>
hooded oriole	<i>Icterus cucullatus</i>
American goldfinch	<i>Carduelis tristis</i>
lesser goldfinch	<i>Carduelis psaltria</i>
european starling	<i>Sturnella vulgaris</i>
western meadowlark	<i>Sturnella neglecta</i>
mourning dove	<i>Zenaida macroura</i>
black phoebe	<i>Sayornis nigricans</i>
phainopepla	<i>Phainopepla nitens</i>
turkey vulture	<i>Cathartes aura</i>
Wilson's warbler	<i>Wilsonia pusilla</i>
yellow-rumped warbler	<i>Dendroica coronata</i>
western bluebird	<i>Sialia mexicana</i>
western tanager	<i>Piranga ludoviciana</i>
black-chinned sparrow	<i>Spizella atrogularis</i>
white-crowned sparrow	<i>Zonotrichia leucophrys</i>
ash-throated flycatcher	<i>Myiarchus cinerascens</i>
Cassin's kingbird	<i>Tyrannus vociferans</i>
bushtit	<i>Psaltiriparus minimus</i>
tree swallow	<i>Tachycineta bicolor</i>
spotted towhee	<i>Pipilo maculatus</i>
California towhee	<i>Pipilo crissalis</i>
red-tailed hawk	<i>Buteo jamaicensis</i>
common raven	<i>Corvus corax</i>
cliff swallow	<i>Petrochelidon pyrrhonota</i>
lark sparrow	<i>Chondestes grammacus</i>
<b>Mammals:</b>	
San Diego black-tailed jackrabbit*	<i>Lepus californicus bennettii</i>

\* = California Special Concern Species





**ECORP Consulting, Inc.**  
ENVIRONMENTAL CONSULTANTS

**CORPORATE OFFICE**

2525 Warren Drive  
Rocklin, CA 95677  
(916) 782-9100  
(916) 782-9134 fax

**OAKLAND**

2100 Embarcadero  
Suite 202  
Oakland, CA 94606  
(510) 434-0150  
(510) 434-0155 fax

**INLAND EMPIRE**

215 North Fifth Street  
Redlands, CA 92374  
(909) 307-0046  
(909) 307-0056 fax

**ORANGE COUNTY**

1801 Park Court Place  
Building B, Suite 103  
Santa Ana, CA 92701  
(714) 648-0630  
(714) 648-0935 fax

[www.ecorpconsulting.com](http://www.ecorpconsulting.com)