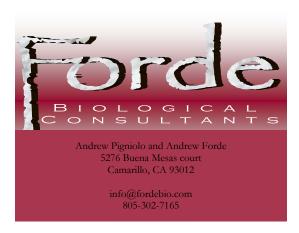
2011 SURVEY RESULTS QUINO CHECKERSPOT BUTTERFLY

MANZANITA WIND ENERGY PROJECT SAN DIEGO COUNTY, CALIFORNIA

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Summary

Forde Biological Consultants (FBC) conducted surveys for *Euphydryas editha quino* (quino checkerspot) on and adjacent to the Manzanita and La Posta Indian reservations, San Diego County, California for San Diego Gas and Electric's proposed Manzanita Wind Energy project. Despite the presence of host and nectar plants, FBC did not detect adult *E. e. quino* within the survey area between March 15, 2011 and May 20, 2011 during 7 surveys.

Survey Area

The proposed project site is located on the Manzanita Indian Reservation, the La Posta Indian Reservation, and other adjacent private holdings west of the community of Live Oak Springs in eastern San Diego County (Exhibit A). These properties are included within the areas covered by the Live Oak Springs and the Sombrero Peak 7.5-minute USGS quadrangles at Sections 3, 10, and 15 in Township 16 South, Range 6 East and Sections 24, 25, 26, 33, 34, and 35 in Township 15 South, Range 6 East (Exhibit B). The survey area included proposed turbine, transmission, and switchyard locations (Exhibit C).

Background

The U.S. Fish and Wildlife Service (USFWS) officially listed *E. e. quino* as "endangered" on January 16, 1997 (USFWS 1997). For this reason, it is protected under the provisions of the Endangered Species Act of 1973, as amended. As such, the law prohibits "take" of this species, either directly or indirectly. In order to help landowners prevent "take", the USFWS requires developers of real property to determine presence or absence of this species within areas of its current range.

Euphydryas editha has a range extending from British Columbia and Alberta, Canada, south including Colorado and Utah, and west along the coast to northern Baja California, Mexico. Twenty subspecies are recognized based on localized ranges and morphological characteristics. All subspecies utilize plants in the Plantaginaceae and Orobanchaceae families for larval food. There are four subspecies of *E. editha* recognized as occurring within southern California including *E. e. quino*. Historically common, the range of *E. e. quino* included Los Angeles, Orange, western Riverside, southwestern San Bernardino, and San Diego counties in addition to northern Baja California, Mexico. Although once common, populations have rapidly declined to a few isolated areas of Orange, western Riverside and San Diego counties along with areas of northern Baja California.

E. e. quino is associated with a variety of habitats that include clay soil meadows and vernal pools, grassland, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland and semi-desert (Ballmer et al. 2000). Within these communities they are usually observed in openings or areas with sparse vegetation (including trails and dirt roads), and on hilltops and ridgelines. It ranges in elevation up to 5,000 feet above mean sea level. Despite association with a wide range of habitat, distribution of this species is restricted to areas that support larval host plants. The primary host plant for E. e. quino is Plantago erecta. Other host plants include Plantago patagonica, Antirrhinum coulterianum, and Collinsia (Pratt, 2010). Castilleja exserta, and Cordylanthus rigidus are considered secondary hosts (USFWS, 2002). Collinsia may serve as the



primary larval host plant for *E. e. quino* at higher elevations such as those within the study area (Pratt, 2010). Hatching from eggs, usually laid on the host plant, the early larvae feed for a period and enter a dormant stage or diapause during periods of poor host plant conditions. During this period, they often rest under vegetation and rocks. If adverse weather conditions occur, the larvae may reenter diapause multiple times emerging after fall or winter rains. Generally the flight season for *E. e. quino* occurs from late February through April, peaking in March or April.

Methodology

Frank Dittmer (TE-225938-0) conducted a habitat assessment across 375-acres of real property on January 25, 2011 including proposed transmission line, turbine, and switchyard areas. Within the survey area, Dittmer determined areas consisting of suitable habitat and excluded areas based on lack of suitable habitat. The USFWS protocol requires a minimum of five surveys throughout the flight season, on non-consecutive days, within non-excluded areas. Dittmer, Greg Chatman (TE-075112-1), Sarah Farmer (TE-192708-0), Bill Gendron (TE-098709-2), and Andrew Pigniolo (TE-053020-2) timed the surveys based on information provided by the USFWS's at the Quino Checkerspot Butterfly, 2011 Monitoring Information reference site¹ and reviewed weather forecasts before initiation of surveys to verify that suitable conditions existed. The biologists conducted 7 surveys between March 15 and May 20, 2011, at an average rate of 13 acres per hour using parallel transects along transmission line corridors and roughly parallel meandering transects in other areas. Surveyors walked within 5 meters of excluded areas such as closed-canopy shrub lands in search of host plants and *E. e. quino*. The biologists also mapped locations of host plants (Exhibit C). The methods utilized during the assessment and the surveys are accordance with the methodology described in "Quino Checkerspot Butterfly, (Euphydryas editha quino), Survey Protocol Information" prepared and published by the US Fish and Wildlife Service, February 2002. Table 1, includes survey dates and weather conditions.

Table 1. Survey Dates/Survey Number/Weather Conditions

Date (2011)	Survey Number	Personnel	Time	Temperature (°F)	Wind Speed Average/Maximum (mph)	Cloud Cover (%)	General Sky Condition
3/15	1	Dittmer/Farmer	1000	72	5-7	25	clear/patchy
3/15	1	Dittmer/Farmer	1500	73	5-7	25	clear/patchy
3/16	1	Dittmer/Farmer	1000	60	7-10 (gusts to 16)	10	clear/patchy
3/16	1	Dittmer/Farmer	1400	60	7-10 (gusts to 16)	20	patchy
3/17	1	Dittmer/Farmer	1030	63	2-6	20	patchy/overcast
3/17	1	Dittmer/Farmer	1500	72	0-4	20	patchy/overcast
4/12	1	Farmer/Paymard	1130	60	7-10	0	clear
4/12	1	Farmer/Paymard	1700	65	6-8 (gusts to 10)	0	clear
4/14	1	Farmer/Paymard	1030	60	6-8	0	clear
4/14	1	Farmer/Paymard	1430	65	6-8	0	clear
3/29	2	Dittmer/Farmer	1100	62	2-4	20	patchy/overcast
3/29	2	Dittmer/Farmer	1300	65	2-4	5-10	clear/patchy
3/29	2	Dittmer/Farmer	1500	68	5-7	10	clear
3/30	2	Dittmer/Farmer	1030	62	5-10	10	clear/patchy
3/30	2	Dittmer/Farmer	1300	66	12-15	10	clear/patchy
3/30	2	Dittmer/Farmer	1430	66	12-15	10	clear
4/5	2	Pigniolo/Paymard	1000	66	3-6	5	clear/patchy
4/5	2	Pigniolo/Paymard	1215	72	4-7 (gusts to 13)	30	patchy
4/5	2	Pigniolo/Paymard	1400	72	4-6	40	patchy
4/15	2	Dittmer/Paymard	1000	65	4-6 (gusts to 10)	0	clear

¹ http://www.fws.gov/Carlsbad/TEspecies/Documents/QuinoDocs/QuinoMonRef/Quino_Ref_Info.htm

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Date (2011)	Survey Number	Personnel	Time	Temperature (°F)	Wind Speed Average/Maximum (mph)	Cloud Cover	General Sky Condition
4/15	2	Dittmer/Paymard	1430	74	4-6	0	clear
4/16	2	Dittmer	1000	72	4-6	5	clear/patchy
4/16	2	Dittmer	1430	78	4-6	0	clear
4/5	3	Farmer	1000	62	0-2	5	clear
4/5	3	Farmer	1400	65	2-5	50	patchy/overcast
4/11	3	Farmer/Paymard	1230	60	5-7	40	clear/patchy
4/11	3	Farmer/Paymard	1500	62	5-7	45	clear/patchy
4/14	3	Dittmer/Farmer/Paymard	1500	65	4-6	0	clear
4/14	3	Dittmer/Farmer/Paymard	1630	65 70	4-6	0	clear
4/20 4/20	3	Farmer/Paymard Farmer/Paymard	1030 1600	70	2-6 4-7	5 5	clear clear
4/26	3	Dittmer	1200	70	0-4	0	clear
4/26	3	Dittmer	1400	74	4-6	5	clear
4/26	3	Dittmer	1600	68	0-4	0	clear
4/18	4	Dittmer/Farmer/Paymard	1100	64	15-20	50	patchy/overcast
4/18	4	Dittmer/Farmer/Paymard	1230	64	15-20	50	patchy/overcast
4/20	4	Dittmer/Gendron	1045	68	3-9	0	clear
4/20	4	Dittmer/Gendron	1200	70	2-7	0	clear
4/20	4	Dittmer/Gendron	1300	68	5-12	0	clear
4/20	4	Dittmer/Gendron	1400	65	6-11	0	clear
4/20	4	Dittmer/Gendron	1500	65	5-9	0	clear
4/21	4	Dittmer/Farmer	930	64	15+	0	clear
4/21	4	Dittmer/Farmer	1100	63	15+ (gusts to 20+)	0	clear
4/25	4	Dittmer/Farmer	1000	65	2-5	30	clear/hazy
4/25	4	Dittmer/Farmer	1430	65	5-10	0	clear
4/27	4	Dittmer	1000	63	2-6	0	clear
4/27	4	Dittmer	1500	72	2-6	0	clear
4/28	4	Dittmer/Farmer/Paymard	1000	73	4-8	0	clear
4/28	4	Dittmer/Farmer/Paymard	1445	75	4-10	0	clear
4/26	5	Gendron	1000	61	5-12	0	clear
4/26	5	Gendron	1100	65	3-6	0	clear
4/26	5	Gendron	1200	66	3-7	0	clear
4/26	5	Gendron	1300	67	2-7	0	clear
4/26	5	Gendron	1400	68	2-7	0	clear
4/26 4/27	5	Gendron	1500	68 62	4-11	0	clear
4/27	5 5	Farmer/Gendron Farmer/Gendron	1000 1100	64	4-14 4-11	0	clear clear
4/27	5	Farmer/Gendron	1200	67	4-11	0	clear
4/27	5	Farmer/Gendron	1300	69	6-13	0	clear
4/27	5	Farmer/Gendron	1400	68	4-10	0	clear
4/27	5	Farmer/Gendron	1500	69	2-7	0	clear
4/27	5	Farmer/Gendron	1600	69	4-10	0	clear
4/28	5	Chatman	1030	76	8-10	0	clear
4/28	5	Chatman	1130	84	2-4	0	clear
4/28	5	Chatman	1230	83	3-8	0	clear
4/28	5	Chatman	1330	88	6-10	0	clear
4/28	5	Chatman	1430	86	8-12	0	clear
4/28	5	Chatman	1500	84	8-12	0	clear
4/29	5	Chatman	1015	66	2-7	0	clear
4/29	5	Chatman	1115	78	4-8	0	clear
4/29	5	Chatman	1215	78	4-8	0	clear
4/29	5	Chatman	1315	80	4-8	0	clear
5/5	5	Dittmer/Farmer	1000	78	2-4	0	clear
5/5	5	Dittmer/Farmer	1200	80	2-4	0	clear
5/5	5	Dittmer/Farmer	1300	82	2-4	0	clear
5/5	5	Dittmer/Farmer	1430	81	2-4	0	clear
5/4 5/4	6	Farmer/Paymard	930	63	2-5	0	clear
	6	Farmer/Paymard	1400	80 74	2-5 3-7	0	clear/hazy
5/5 5/5	6	Chatman	1000	79	5-8	0	clear
5/5	6	Chatman Chatman	1100 1200	83	7-10	0	clear clear
2/3	6	Chatman	1300	85	6-10	0	clear
5/5							



Date (2011)	Survey Number	Personnel	Time	Temperature (°F)	Wind Speed Average/Maximum (mph)	Cloud Cover (%)	General Sky Condition
5/5	6	Chatman	1430	85	6-10	0	clear
5/6	6	Dittmer/Farmer/Chatman	1030	75	6-10	0	clear
5/6	6	Dittmer/Farmer/Chatman	1130	79	4-8	0	clear
5/6	6	Dittmer/Farmer/Chatman	1230	83	4-8	0	clear
5/6	6	Dittmer/Farmer/Chatman	1300	84	8-11	0	clear
5/11	6	Farmer	930	66	2-5	0	clear
5/12	7	Chatman	1030	80	3-4	0	clear
5/12	7	Chatman	1130	84	3-5	0	clear
5/12	7	Chatman	1230	87	4-7	0	clear
5/12	7	Chatman	1330	88	3-4	0	clear
5/12	7	Chatman	1430	87	4-8	0	clear
5/12	7	Chatman	1530	84	5-8	0	clear
5/13	7	Chatman	1030	73	6-12	0	clear
5/13	7	Chatman	1130	78	6-10	0	clear
5/13	7	Chatman	1230	80	6-10	0	clear
5/13	7	Chatman	1330	81	8-11	0	clear
5/13	7	Chatman	1430	80	7-10	0	clear
5/20	7	Farmer	930	66	2-5	0	clear
5/20	7	Farmer	1330	75	2-5	0	clear

Results

Frank Dittmer did not observe larval host plants during the habitat assessment conducted on January 25, 2011; however, he and the other biologists observed small patches of *Cordylanthus rigidus* and *Antirrhinum coulterianum* during the surveys. The biologists also observed a population of *Collinsia heterophylla*, a secondary host plant, consisting of more than 350 individuals. The biologists surveyed areas dominated by host plants, extensively, in search of *E. e. quino*. The biologists noted that some host plants, bloomed late. The biologists also observed abundant nectar sources including *Cryptantha* sp., *Lasthenia californica*, *Layia platyglossa*, *Amsinkia* sp., *Lupinus bicolor*, and *Linanthus dianthiflorus*. Other potential nectar sources include *Rhus ovata*, *Eriophyllium confertiflorum*, and *Ceanothus* sp.

Despite the presence of host plants and nectar sources, the biologists did not observe adult or larval *E. e. quino* utilizing any of these resources or flying in the survey area after the first 5 surveys. Due to late blooming period of some host plants, most likely due to cooling and late season rain, and to encompass the entire 2011 flight season (April 4 through May 20), the biologists conducted two additional surveys. The biologists did not observe adult or larval *E. e. quino* utilizing host plants, nectar sources, or flying in the survey area during the additional surveys. Table 2 includes a list of species observed during the surveys.

Table 2. Species Observed

Brush Footed Butterflies	Common Name	Species Name	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Mylitta Crescent	Brush Footed Butterflies	Nymphalidae								
Mourraing Cloak		, , , , , , , , , , , , , , , , , , ,	0	0	0	1	0	0	0	1
Common Buckeye	,	2 2								2
West Coast Lady		J 1 1	6	6	30	16	44	35	17	154
Painted Lady	,	J								1
Satyr Anglewing		Vanessa cardui	2	0	4	13	3	4	5	31
Northern White-Skipper		Polygonia satyrus		0	0		0	0	0	1
Northern White-Skipper		78 7								
Fierry Skipper			0	0	0	1	7	5	4	17
Funereal Duskywing	**	1								12
Mournful Duskywing		31 13	- v							7
Propertius Duskywing	, 0	J J							Ų.	25
Juba Skipper	, 0	- J								60
Unidentified Skipper	1 2 0									7
Hairstreaks Lycaenidae										4
Western Brown Elfin		1		Ů		Ů				•
Perplexing Hairstreak Callophrys perplexa 9 48 25 37 5 1 0			2	2	1	6	0	0	0	14
Southern Blue Glaucopsyche Igalamus 1 8 8 15 14 15 0 Acmon Blue Icaricia acmon 21 11 39 38 32 22 10 Echo Blue Celastrina ladon 0 0 0 0 5 12 2 Echo Blue Plebejus melissa 0 0 0 0 0 5 12 2 Western Tailed-Blue Plebejus melissa 0 0 0 0 0 1 0 0 Lupine Blue Icaricia monticola 0 0 0 0 0 0 0 Lupine Blue Icaricia monticola 0 0 0 0 0 0 0 Arrowhead Blue Glaucopsyche piasus umbrosa 0 0 0 0 0 0 0 Square Spotted blue Euphilotes battoides 1 0 1 0 0 0 0 Unidentified Blue Polyommatinae 22 15 25 19 17 14 0 Metalmarks Riodinidae										125
Acmon Blue Icaricia acmon 21	<u> </u>	1 3 1 1								61
Echo Blue Celastrina ladon 0 0 0 0 5 12 2 Melissa Blue Plebejus melissa 0 0 0 3 3 7 0 1 Western Tailed-Blue Everes amyntula 0 0 0 0 0 1 0 0 Lupine Blue Icaricia monticola 0 0 0 0 0 6 0 5 Arrowhead Blue Galaucopsyche piasus umbrosa 0 0 0 0 0 0 0 Square Spotted blue Euphilotes battoides 1 0 1 0 0 0 0 Unidentified Blue Polyommatinae 22 15 25 19 17 14 0 Metalmarks Riodinidae		15 50								173
Melissa Blue Plebejus melissa 0 0 3 3 7 0 1										1/3
Western Tailed-Blue Everes amyntula 0 0 0 0 0 0 0			, ,							14
Lupine Blue Learicia monticola 0 0 0 0 6 0 5 Arrowhead Blue Glaucopsyche piasus umbrosa 0 0 0 0 40 20 50 0 Square Spotted blue Euphilotes hattoides 1 0 1 0 0 0 0 Unidentified Blue Polyommatinae 22 15 25 19 17 14 0 Metalmarks Riodinidae										14
Arrowhead Blue Glaucopsyche piasus umbrosa 0 0 40 20 50 0 Square Spotted blue Euphilotes battoides 1 0 1 0 0 0 0 Unidentified Blue Polyommatinae 22 15 25 19 17 14 0 Metalmarks Riodinidae Riodinidae Papilionidae Papilionidae Papilio eurymedon 1 3 1 3 9 8 7 Western Tiger Swallowtail Papilio rutulus 1 1 1 2 0 2 0 Whites and Orangetips Pieridae Sara's Orangetip Anthocharis sara 30 46 43 41 18 9 3 Cabbage White Pieris rapae 0 1 0 0 0 0 0 Checkered White Pontia protodice 19 31 42 17 17 27 8										11
Square Spotted blue Euphilotes battoides 1 0 1 0 0 0 0 0 Unidentified Blue Polyommatinae 22 15 25 19 17 14 0 Metalmarks Riodinidae										110
Metalmarks Riodinidae Rolyommatinae Riodinidae Rolyommatinae Riodinidae Riodinidae Rolyommatinae Riodinidae Rolyommatinae Rolyommatinae										2
Metalmarks Riodinidae 61 49 86 98 186 125 65 Swallowtails Papilionidae Papilio eurymedon 1 3 1 3 9 8 7 Western Tiger Swallowtail Papilio rutulus 1 1 1 2 0 2 0 Whites and Orangetips Pieridae Sara's Orangetip Anthocharis sara 30 46 43 41 18 9 3 Cabbage White Pieris rapae 0 1 0 0 0 0 0 Checkered White Pontia protodice 19 31 42 17 17 27 8 Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 0		1								112
Mormon Metalmark Apodemia mormo 61 49 86 98 186 125 65 Swallowtails Papilio indae Image: Control of the papilio of the pap			22	13	23	19	1 /	14	U	112
Swallowtails Papilionidae 1 3 1 3 9 8 7 Western Tiger Swallowtail Papilio rutulus 1 1 1 2 0 2 0 Whites and Orangetips Pieridae Sara's Orangetip Anthocharis sara 30 46 43 41 18 9 3 Cabbage White Pieris rapae 0 1 0 0 0 0 0 Checkered White Pontia protodice 19 31 42 17 17 27 8 Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 0 0 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 <t< td=""><td></td><td></td><td>- (1</td><td>40</td><td>0.6</td><td>00</td><td>407</td><td>405</td><td></td><td>(50</td></t<>			- (1	40	0.6	00	407	405		(50
Pale Swallowtail Papilio eurymedon 1 3 1 3 9 8 7 Western Tiger Swallowtail Papilio rutulus 1 1 1 2 0 2 0 Whites and Orangetips Pieridae 30 46 43 41 18 9 3 Sara's Orangetip Anthocharis sara 30 46 43 41 18 9 3 Cabbage White Pieris rapae 0 1 0 0 0 0 0 Checkered White Pontia protodice 19 31 42 17 17 27 8 Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 0 0 0 Spring White <th< td=""><td></td><td>1</td><td>61</td><td>49</td><td>86</td><td>98</td><td>186</td><td>125</td><td>65</td><td>670</td></th<>		1	61	49	86	98	186	125	65	670
Western Tiger Swallowtail Papilio rutulus 1 1 1 2 0 2 0 Whites and Orangetips Pieridae 30 46 43 41 18 9 3 Sara's Orangetip Anthocharis sara 30 46 43 41 18 9 3 Cabbage White Pieris rapae 0 1 0 0 0 0 0 Checkered White Pontia protodice 19 31 42 17 17 27 8 Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 0 Dainty Sulphur Ph		1								
Whites and Orangetips Pieridae 30 46 43 41 18 9 3 Cabbage White Pieris rapae 0 1 0 0 0 0 0 Checkered White Pontia protodice 19 31 42 17 17 27 8 Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 0 Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 0 3 2 0 California Marble Euchloe hyantis <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>7</td> <td>32</td>									7	32
Sara's Orangetip Anthocharis sara 30 46 43 41 18 9 3 Cabbage White Pieris rapae 0 1 0 0 0 0 0 Checkered White Pontia protodice 19 31 42 17 17 27 8 Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 0 Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 0 3 2 0 California Marble Euchloe hyantis	Western Tiger Swallowtail	Papilio rutulus	1	1	1	2	0	2	0	7
Cabbage White Pieris rapae 0 1 0 0 0 0 Checkered White Pontia protodice 19 31 42 17 17 27 8 Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 0 Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 3 2 0 California Marble Euchloe hyantis 0 0 5 4 0 0	Whites and Orangetips	Pieridae								
Checkered White Pontia protodice 19 31 42 17 17 27 8 Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 0 Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 3 2 0 California Marble Euchloe hyantis 0 0 5 4 0 0	Sara's Orangetip	Anthocharis sara	30	46	43	41	18	9	3	190
Orange Sulphur Colias eurytheme 0 2 0 2 1 0 0 Harford's Sulphur Colias harfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 0 Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 3 2 0 California Marble Euchloe hyantis 0 0 5 4 0 0	Cabbage White	Pieris rapae	0	1	0	0	0	0	0	1
Harford's Sulphur Colias barfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 0 Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 3 2 0 California Marble Euchloe hyantis 0 0 5 4 0 0	Checkered White	Pontia protodice	19	31	42	17	17	27	8	161
Harford's Sulphur Colias barfordii 4 24 13 20 30 45 35 Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 0 Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 3 2 0 California Marble Euchloe hyantis 0 0 5 4 0 0		Colias eurytheme	0	2	0	2	1	-		5
Sleepy Orange Eurema nicippe 0 0 0 0 1 3 0 Spring White Pontia sisymbrii 0 6 0 0 0 0 Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 3 2 0 California Marble Euchloe hyantis 0 0 5 4 0 0 Others 0 0 0 0 5 4 0 0	Harford's Sulphur	Colias harfordii	4	24	13	20	30	45	35	171
Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 0 3 2 0 California Marble Euchloe hyantis 0 0 0 5 4 0 0 Others	Sleepy Orange	Eurema nicippe	0	0	0	0	1	3	0	4
Dainty Sulphur Nathalis iole 0 2 0 1 3 4 0 Cloudless Sulphur Phoebis sennae 0 0 0 0 3 2 0 California Marble Euchloe hyantis 0 0 5 4 0 0 Others	Spring White	Pontia sisymbrii	0	6	0	0	0	0	0	6
California Marble Euchloe byantis 0 0 0 5 4 0 0 Others 0 0 0 5 4 0 0		Nathalis iole	0	2	0	1	3	4	0	10
Others	Cloudless Sulphur	Phoebis sennae	0	0	0	0	3	2	0	5
	California Marble	Euchloe hyantis	0	0	0	5	4	0	0	9
	Others									
Drasteria Moth 0 0 0 1 2 0 0	Drasteria Moth		0	0	0	1	2	0	0	3

Conclusion

Host plants and nectar sources occur within the survey area indicating potentially suitable habitat within the survey area; however, the biologists did not detect *E. e. quino* during the surveys. Weather conditions, which included snow and freezing temperatures, may have contributed to the absence of *E. e. quino* (and *Chlosyne gabbii*, [Gabb's checkerspot]) during the 2011 surveys. This finding is consistent with the range indicated by the 2010 report prepared by Calantas.



Certification

This report concludes the findings of the *E. e. quino* survey conducted for SDG&E's Manzanita Wind Energy Project. Forde Biological Consultants certifies that the information in this report and attached exhibits fully and accurately disclose the results and survey methods implemented to meet the USFWS survey protocol and reporting requirements for the *E. e. quino*.

andrew R. Prints	6/30/11	
Andrew Pigniolo, Federal Permit Number TE-053020-2	Date	
Sie K. Chalman	7/16/11	
Greg Chatman, Federal Permit Number TE-075112-1	Date	
Frank Dittmer, Federal Permit Number TE-225938-0	6/30/11 Date	
Sarah Farmer, Federal Permit Number TE-192708-0	6/30/11	Date
Bill Gendron, Federal Permit Number TE-098709-2	7/13/11	Date

References Cited

Ballmer, G., Hawks, D., Osborne, K., and Pratt, G.

2000 The Quino Checkerspot Butterfly; <u>Euphydryas editha quino</u>. Unpublished manuscript.

Calantas, Barbara

2010 45-Day Summary Report of Focused Surveys for the Quino Checkerspot Butterfly for the Manzanita Wind Energy Project. Unpublished letter report on file at Laguna Mountain Environmental, Inc.

Pratt, Gordon F.

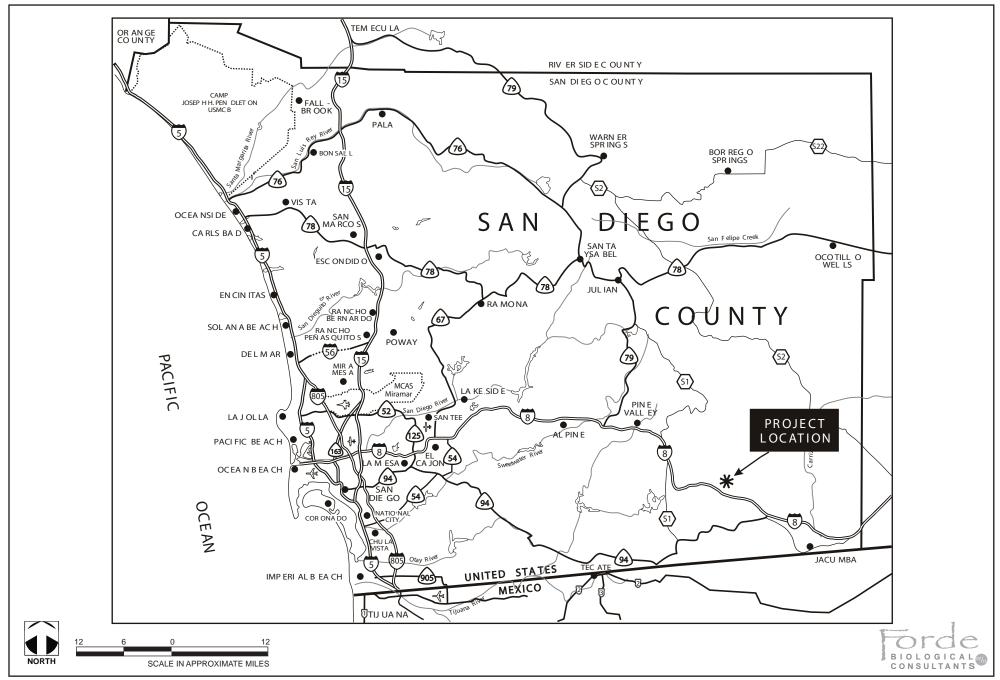
2010 A New Larval Food Plant, *Collinsia concolor*, for the Endangered Quino Checkerspot, *Euphydryas editha quino. Journal of the Lepodoptera Society* 64(1) 36-37.

U.S. Fish and Wildlife Service (USFWS)

- 1997 Endangered and Threatened Wildlife and Plants: Determination of Endangered Status for the Laguna Mountains Skipper and Quino Checkerspot Butterfly. Federal Register 62(11):2313-2322.
- 2001 *Quino Checkerspot Butterfly* (<u>Euphydryas editha quino</u>). Survey Protocol Information. Unpublished manuscript available from the Carlsbad Field Office, Carlsbad, California.
- 2011 Quino Checkerspot Butterfly (<u>Euphydryas editha quino</u>), 2011 Monitoring Information. Located at http://www.fws.gov/carlsbad/TEspecies/Documents/QuinoDocs/QuinoMonRef/Quino_Ref_Info.htm



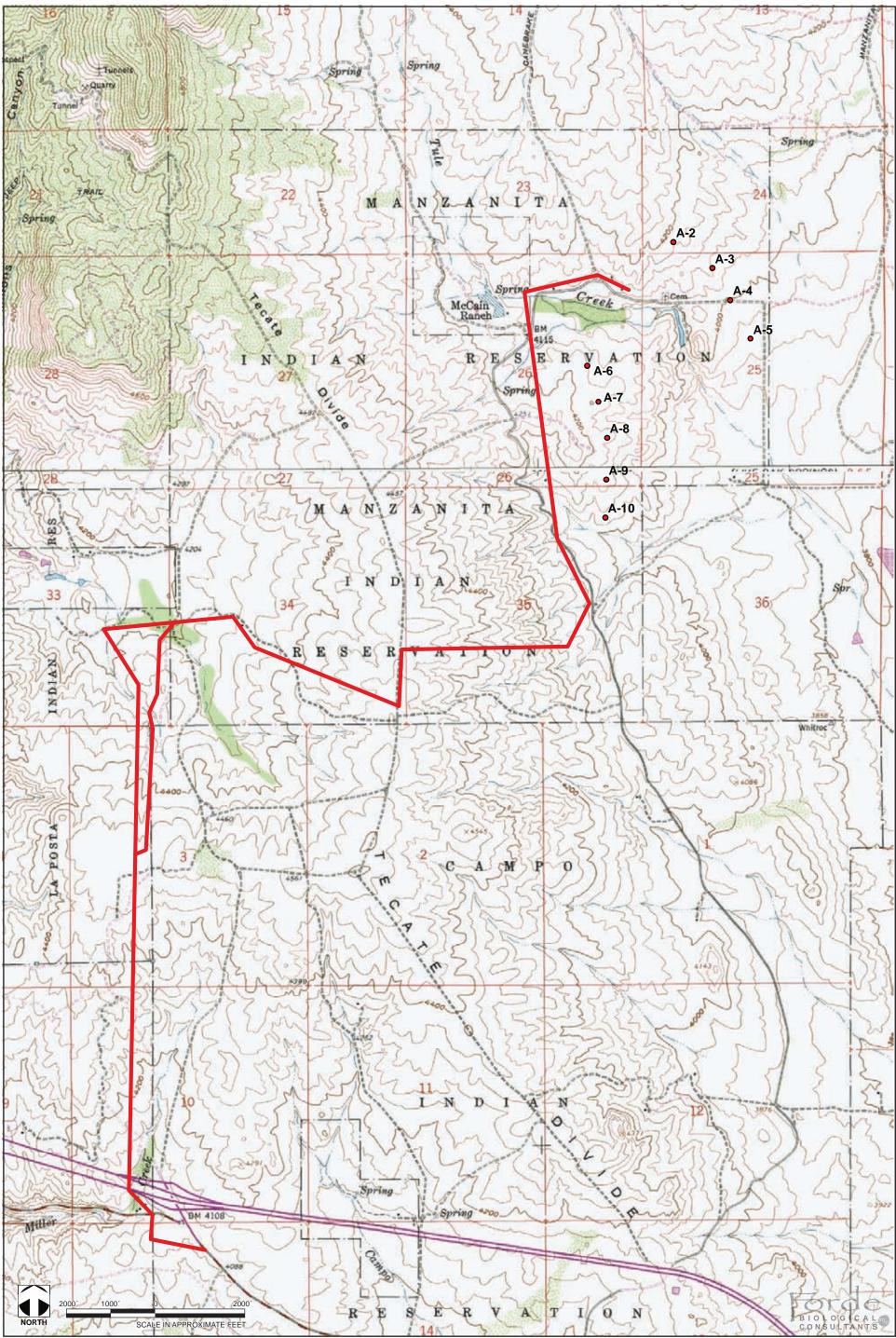


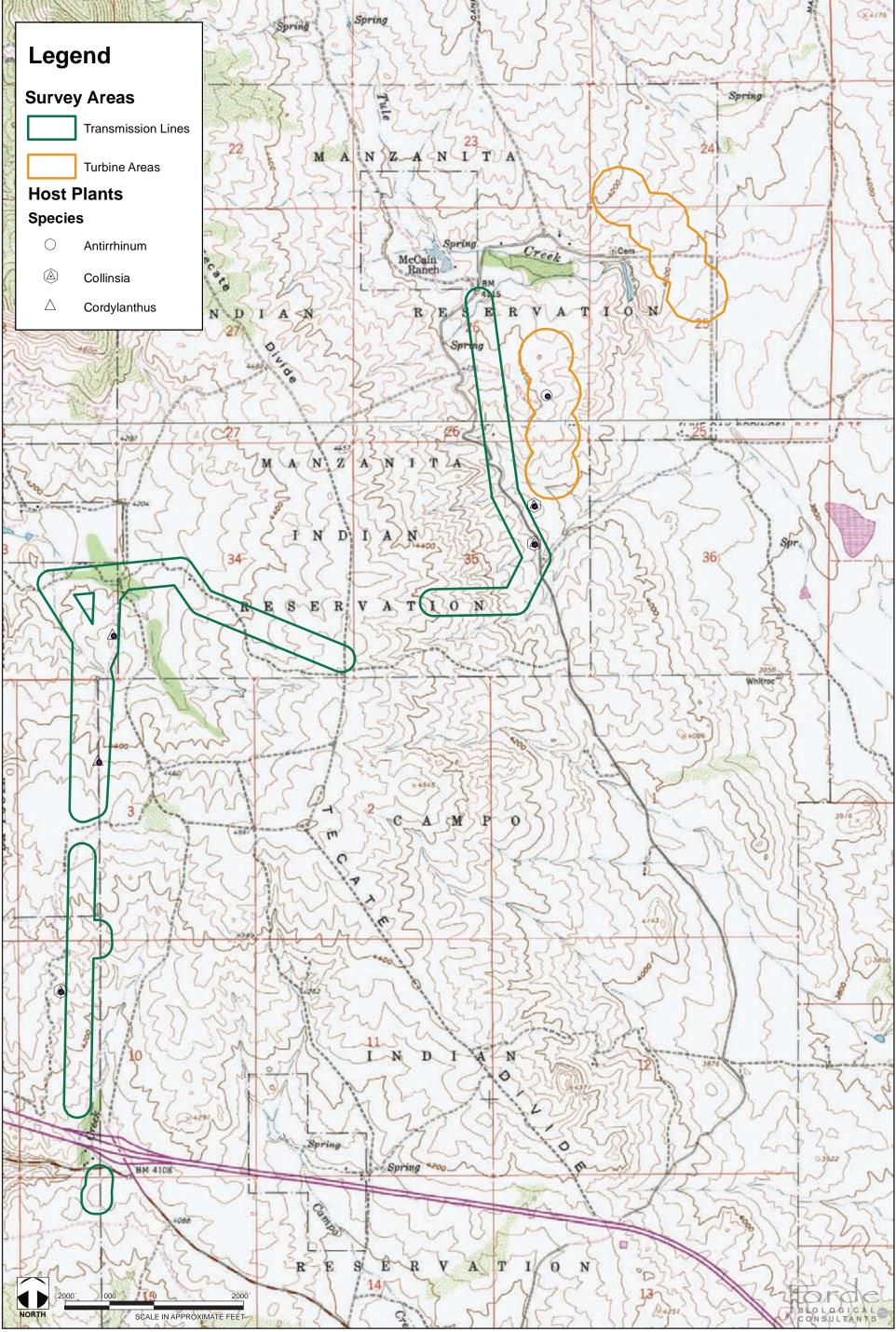


SOURCE: Laguna Mountain Environmental, 7/11.

exhibit $oldsymbol{A}$

Regional Location





Surveyor Dittmen Segm	ent #	Date: 4/20/11
Comments: 3 Survey to	ans in the fie	ed today.
Bire doing #1	(N. 7 I-8) to	Sarah Marshall
	Vindy Footay.	2-8 mph. 15 mph
by y fm.		
Plant Communities and Habitat Information:	Sage Scrub, C	hapand port Ary
Wall Howar along	Rds, abuncant	in Bloom.
Host Plants Present: Jak year / R Collinsia Con C	olon Afford 157	plants & the
following Condinates.	N. 32, 73707 W-116. 36128	
Nectar Plants Present: Gold fi	Id Som any	Day will.
MOTHING NEW TO	pore.	
Quino Sighting Da	te: GPS Location:	
Photographs Taken:		
1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.

Location MANZ	ANITA		Survey Segment South	A- T-8
Surveyor BILL	GENDROW		Date 4/20/11 Survey Week	OF I-O
Survey Partner(s)	NONE		Date 4/20/11 Survey Week	Number 4
Total Acres:	Portion Surveyed:	ALL	Elevation: Max	Min

Tin	ne (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start	1045	0	clear patchy overcast drizzle shower	3-9 West	68
	1200	0	clear patchy overcast drizzle shower	2-7 W	70
			clear patchy overcast drizzle shower		70
	1300	0	clear patchy overcast drizzle shower	5-12 W	68
	1400	0	clear patchy overcast drizzle shower	6-11 W	
	1500	0	clear patchy overcast drizzle shower	5-9 W	65
Stop	1530		clear patchy overcast drizzle shower	0 / 00	00

Habitat onsite (circle as applicable): hilltops (ridges) (ock outcrops open soils soil crusts, clay soils, old roads) Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources

Nymphalidae (Brush Footed Butterflies) Euphydras editha quino (Quino Checkerspot) Euphydras chalcedona (Chalcedon Checkerspot) Charidryas gabbii (Gabb's Checkerspot) Phycoides mylitta (Mylitta Crescent) Phycoides mylitta (Mylitta Crescent) Phessalia leanira (Leanira Checkerspot) Riodinidae (Metalmarks) Nymphalis antiopa (Mourning Cloak)	Butterfly Species	(Total)	Hill- topping	Butterfly Species	Count	Hin-
Enphydras editha quino (Quino Checkerspot) Enphydras chalcedona (Chalcedon Checkerspot) Phepius melissa (Melissa Blue) Eversa amyntula (Mylita Crescent) Physoides mylitia (Western Pygmy-Blue) Riodinidae (Metalmarks) Riodinidae (Metalmarks) Riodinidae (Metalmarks) Papillonidae (Swallowtails) Papillonidae (Swallowtails) Papillonidae (Swallowtails) Papillonidae (Swallowtails) Papillon eurymedon (Pale Swallowtail) Papillon riutulae (Western Tiger Swallowtail) Papillon riutulae (Weste	Nymphalidae (Brush Footed Butterflies)				(Total)	toppin
Plebejus melissa (Melissa Blue) Plebejus melissa (Melissa Blue)	Euphydras editha quino (Quino Checkerspot)					
Chardryax gabbii (Gabb's Checkerspot) Phycoides mylitia (Mylitia Crescent) Phycoides mylitia (Mylitia Crescent) Nymphalis antiopa (Mourning Cloak) Basilarchia lorquini (Lorquin's Admiral) y Junonia coenia (Common Buckeye) /1 Vanessa annabella (West Coast Lady) Vanessa annabella (West Coast Lady) Vanessa cardui (Painted Lady) / / Pierida (Whites and Orangetips) Vanessa cardui (Painted Lady) / / / / / / / / / / / / / / / / / /	Euphydras chalcedona (Chalcedon Checkerspot)					
Physicolate mylitia (Mylitia Crescent) Brephidium exilis (Western Pygmy-Blue)	Charidryas gabbii (Gabb's Checkerspot)					
Riodinidae (Metalmarks) Riodinidae (Meta	Phycoides mylitta (Mylitta Crescent)					
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Surveyor BILL GENDRON Segment # So. of I-8 Date: 4/20/11

MANZANITA

Comments:		
LIARM DA	1 WITH STRUNG BRE	N PROTOCOL LIMITS.
GUSTE DI	WIND BUT WITHI	N PROTOCOL LIMITS.
(10)19 01		
10+ SPEC	IES OF BUTTERFLY	DIVERSITY IS GOOD. ALL
MORMOIL	J GREAT NUMBERS.	DIVERSITY 13 GOOD. ALL
FAMILIES	ARE IN FLIGHT.	
		- ADVATANTUA AND
NECTAR :	SOURCES ARE ADEQU	DATE. CRYPTANTHA AND
LASTHENI	A ARE ABUNDANT.	
		>= ^0 · = > /= 0
NO QU	3 HOST PLANTS WET	ZE OBSERVED
Plant Communities and Ha	bitat Information:	1-12
HIGH DE	SERT CHAPARAAL	DOMINATED BY VEGETATION IS TOO DENSE
MAN ZANIT	TA AND CHEMISE	. VEGETATION IS TOO DENSE
1-17-72		
IN AREAS	TO THE POINT OF	BXCLUSION FROM SURVEY
IN AREAS	TO THE POINT OF	BXCLUSION FROM SURVEY
IN AREAS	TO THE POINT OF	BXCLUSION FROM SURVEY
IN AREAS	TO THE POINT OF	BXCLUSION FROM SURVEY
		BX CLUSION PROPISORUCY
		BX CLUSION PROPISORUCY
		BX CLUSION PROPISORUCY
		FLANTS WERE FOUND.
		BX CLUSION PROPISORUCY
		BX CLUSION PROPISORUCY
		BX CLUSION PROM SURVEY
Host Plants Present: NO EVIT	DENCE OF PLANTAG ER POTENTIAL HOST	PLANTS WERE FOUND.
Host Plants Present: NO EVIT	DENCE OF PLANTAG ER POTENTIAL HOST	PLANTS WERE FOUND.
Host Plants Present: NO EVIT	DENCE OF PLANTAG ER POTENTIAL HOST	PLANTS WERE FOUND.
Host Plants Present: NO EVIT NO OTH	DENCE OF PLANTAGER POTENTIAL HOST	BX CLUSION PROM SURVEY
Host Plants Present: NO EVIT	DENCE OF PLANTAG ER POTENTIAL HOST	PLANTS WERE FOUND.
No EVIT NO OTH NO OTH Nectar Plants Present: CRYPTAN MANZANIT LUPINES	DENCE OF PLANTAGER POTENTIAL HOST TITA, MUSTAPOS, GO. A, APABIS, ASTER GROUND PINK	PLANTS WERE FOUND.
No EVIT NO OTH NO OTH Nectar Plants Present: CRYPTAN MANZANIT LUPINES	DENCE OF PLANTAGER POTENTIAL HOST TITA, MUSTARDS, GO A, ARABIS, ASTER GROUND PINK	DFIEZDS, GOLDEN YARPON, S, AMSINKIA, CEANOTHUS,
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Nectar Plants Present: (Py PTAN MANZANIT LUPINES Photographs Taken: No	DENCE OF PLANTAGER POTENTIAL HOST TITA, MUSTARDS GO A, ARABIS, ASTER GROUND PINK NE Date:	DFIELDS, GOLDEN YARROW, S, AMSINKIA, CEANOTHUS,
No oth No oth	DENCE OF PLANTAGER POTENTIAL HOST TITA, MUSTARDS, GO A, ARABIS, ASTER GROUND PINK NE Date:	DPIEZDS, GOLDEN YARROW, S, AMSINKIA, CEANOTHUS, GPS Location:
No oth No oth	DENCE OF PLANTAGER POTENTIAL HOST TITA, MUSTARDS, GO. A, ARABIS, ASTER GROUND PINK NE Date:	DFIELDS, GOLDEN YARROW, S, AMSINKIA, CEANOTHUS, GPS Location:

Day Carred due to High Wirds

Quino Checkerspot General Form

Adult Survey

Surveyor Det	mar / FARMEN	Date 4/2/// Survey Week Number 4
Total Acres:	Portion Surveyed:	Elevation: Max Min

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 930		clear patchy overcast drizzle shower	15 XMpl	1041
		clear patchy overcast drizzle shower		1
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop // 00		clear patchy overcast drizzle shower	15460	ct to

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

		Leptotes marina (Marine Blue) Philotes sonorensis (Sonoran Blue) Plebejus melissa (Melissa Blue) Everes amyntula (Western Tailed-Blue) Brephidium exilis (Western Pygrny-Blue) Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail) Papilio rutulus (Western Tiger Swallowtail)	(Total)	toppin
		Philotes sonorensis (Sonoran Blue) Plebejus melissa (Melissa Blue) Everes amyntula (Western Tailed-Blue) Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail)		
		Plebejus melissa (Melissa Blue) Everes amyntula (Western Tailed-Blue) Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail)		
		Everes amyntula (Western Tailed-Blue) Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) Papillonidae (Swallowtails) Papilio eurymedon (Pale Swallowtail)		
		Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail)		
		Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail)		
		Apodemia mormo (Mormon Metalmark) Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail)		
		Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail)		
		Papilio eurymedon (Pale Swallowtail)		
		Fabilio Futurus Western Tipper Swallowers		
			-	
		Papilio zelicaon (Anise Swallowtail)		
	-	Pieridae (Whites and Orangetips)		
-	_	Anthocharis cethura (Desert Orangetip)		
		Anthocharis sara (Sara's Orangetip)		
1		Pieris rapae (Cabbage White)		
		Pontia protodice (Checkered White)		
	1	Colias eurytheme (Orange Sulphur)		
	1			
				_
			-	_
		Coenonympha californica (Common California		
-				
-	-			
\neg				
	-			
	-			
-				
			Pieris ropae (Cabbage White) Pontia protodice (Checkered White) Colias eurytheme (Orange Sulphur) Colias harfordii (Harford's Sulphur) Eurema nicippe (Sleepy Orange) Satyridae (Satyrids)	Pieris rapae (Cabbage White) Pontia protodice (Checkered White) Colias eurytheme (Orange Sulphur) Colias harfordii (Harford's Sulphur) Eurema nicippe (Sleepy Orange) Satyridae (Satyrids) Coenonympha californica (Common California Ringlet)

Surveyor	Segment #	 0	/	Date	
Comments:	DAY CAller	due	to	DICH	1. Van
	701	ma Otal	/	0	Garage
	204	1144			
				-	
	100				
lant Communities and	Habitat Information:				
			- Mayer		-
Iost Plants Present:					
lectar Plants Present:					
ectai Fiants Fresent.					
	No.				
Quino Sighting	Date:	GPS Location:			
otographs Taken:					
	2.		3.		
	5.		6.		
	8.		9.		
0.	11				

Location	Manzanita Wind	Farm Survey Segment Manzonto From office	to oak
Surveyor	Savaly Farmer	Date 4/25/11 Survey Week Number 4	A Committee of the Comm
Survey Partner(s)		77	free
Total Acres:	Portion Surveyed:	Elevation: Max Min	

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 10:00 30%	30%	clear patchy overcast drizzle shower	2-5 mph	650
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 2:30	0%	clear patchy overcast drizzle shower	5-10mph	105

Habitat onsite (circle as applicable): hilltops, vock outcrops, open soils soil crusts, clay soils, old roads, Blantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	(Total)	Hill- toppin
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)	(1000)	soppus
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)	20	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	30	
Junonia coenia (Common Buckeye)	ID		Papilio eurymedon (Pale Swallowtail)		
Vanessa annahella (West Coast Lady)	10		Papilio rutulus (Western Tiger Swallowtail)		_
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowtail)		
Vanessa cardui (Painted Lady)			Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangetip)		
Danaidae					
Danaus gilippus (Queen)		-	Anthocharis sara (Sara's Orangetip)		
Danaus plexippus (Monarch)			Pieris rapae (Cabbage White) Pontia protodice (Checkered White)	0	
Hesperidae				2	
Heliopetes ericetorum (Northern White-Skipper)			Colias eurytheme (Orange Sulphur)	2	
Hylephila phyleus (Fiery Skipper)	0	100	Colias harfordii (Harford's Sulphur)	2	
Pyrgus albescens (White Checkered-Skipper)	- 10		Eurema nicippe (Sleepy Orange)		
Erynnis funeralis (Funereal Duskywing)	-	-	Satyridae (Satyrids)		
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:	-	
Erynnis propertius (Propertius Duskywing)			Blw IV	-	
Ochlodes agricola (Rural Skipper)				5	_
ycaenidae (Hairstreaks)			showhead blue	40	
Atlides holesus (Great Purple Hairstreak)					-
Incisalia augustinus (Western Brown Elfin)			771	-	
Callophrys perplexa (Perplexing Hairstreak)	- 2		CHAIN	-	_
Strymon melinus (Gray Hairstreak)			108	-	_
Glaucopsyche lygdamus (Southern Blue)	1	1	108	-	
Icarcia acmon (Acmon Blue)	5			-	
Celastrina ladon (Echo Blue)	1-1	-			

Comments:		
Most plan	ts in full boom. O	aldfields Louis They are
lant Communities and H	abitat Information:	ub ·
N P		
of Callinsin o	losened, talled ~ 2 c	nates, vecently bloomed
lectar Plants Present:		
rold fields look	II. The second s	nor chia fildlewed, ormothers
Quino Sighting	Date:	GPS Location:
hotographs Taken:		
	2.	3.
	5.	
		6.
	8.	9.
D.	11.	12.

Surveyor Diff 1	Anita	1	Da	ate 4 2	uryey Segment _	F 4 vey Week Number C	Adult S	urvey
Survey Partner(s) Total Acres:	Portion Surv	reyed: Mc A	JA.	nest	Elevation: M	1ax 4100 Min 4	039	
Time (24 hr)	% Cloud		5	Sky		Wind (range)	Temp (F	
Start /0:00	\$	clear patch	y over	reast dr	izzle shower	8-2	71/	5
		clear patch	y over	cast dr	zzle shower			
		clear patch	y over	cast dri	zzle shower			
		clear patch	y over	cast dri	zzle shower			
		clear patch	y over	cast dri	zzle shower			
		clear patch	v over	cast dri	zzle shower			\dashv
Stop 7:30	000	clear) patch			zzle shower	2 mo	175	
Habitat onsite (circle as Castilleja, Cordylanthi	is, Intirrhinus	nilltops, ridges, n, nectar source	s.		en soils, soil cru	ists, clay soils, old ros		
	terfly Species		(Total)	Hill- topping	В	atterfly Species	(Total)	Hill- topping
Nymphalidae (Brush Foote					Leptotes marina	(Marine Blue)		
Euphydras editha quino (sis (Sonoran Blue)		
Euphydras chalcedona (C	naicedon Checker	rspot)			Plebejus melissa	(Melissa Blue)		

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	(Total)	Hill- toppin
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)	(1944)	wypac
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)	-	
Charidryas gabbii (Gabb's Checkerspot)	-		Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark) W W	120	
Basilarchia lorquini (Lorquin's Admiral)			Papifionidae (Swallowtails)	10	
Junonia coenia (Common Buckeye) \\	12			1	
Vanessa annabella (West Coast Lady)	1		Papilio eurymedon (Pale Swallowtail)	1	
Vanessa atalanta (Red Admiral)	+ +		Papilio rutulus (Western Tiger Swallowtail)	-	
Vanessa cardui (Painted Lady)	12		Papilio zelicaon (Anise Swallowtail)		
Vanessa virginiensis (American Lady)	12	_	Pieridae (Whites and Orangetips)		
Danaidae	-		Anthocharis cethura (Desert Orangetip)		
Control of the Contro	-		Anthocharis sara (Sara's Orangetip)	11-6	
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)	'	
Danaus plexippus (Monarch)	-		Pontia protodice (Checkered White)		
Hesperidae			Colias eurytheme (Orange Sulphur)		
Heliopeles ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	6	_
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	-	
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)			Coenonympho californico (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)	17		OTHERS:	1	
Erynnis propertius (Propertius Duskywing)	1 1		10		
Ochlodes agricola (Rural Skipper)			1 19	/	
ycaenidae (Hairstreaks)			1 = 1541	A	
Atlides halesus (Great Purple Hairstreak)		_	1-TOTAL	/	
Incisalia augustinus (Western Brown Elfin)			1	-	_
Callophrys perplexa (Perplexing Hairstreak)	112		1	-	
Strymon melinus (Gray Hairstreak)	11			-	
Glaucopsyche hygdamus (Southern Blue) \	1			-	
Icarcia acmon (Acmon Blue) N. 1861	11			_	
Celastrina ladon (Echo Blue)				-	
buildent Blue MI "	0	-			- 70

.1	7	7
Surveyor Dittmen Seg	ment #	Date: 4 78 11
Comments: Mc PAin ZAne	h South blone de	let & line.
Gold field ge	thing crip - in gue	feer, They've the
first to come out	compared to far	74 / / *
Pa Waren to day	Compared to for	HOUK. SIIght
Orenege.		
Red tail or	I seen Three	today.
1	,	
Notal 15+ Woo	ley Attypilen o	n sand foly
UASH out ara.	In Coose Sand -	onunge/ Led
	xprox \$ 1/2 Cm	n in length-
Man as to	1 2 6 1	of years growth.
But seems to be a	seting, not save	is they's a character
	8	
Plant Commission and Marking Y. Commission		
Plant Communities and Habitat Information	1. 1.1	1 111
Ock , Kipanan,	1	, , , , ,
in distand area	- 1 1 1.1	dong the fourt.
0.0	um harmatochita	2/
CA. Petry, Mice of	reen-bloomer good	ed) little with the
Penstermon Centy	anthydius fl Beaks	d) lettle Welly, And
Host Plants Present: A Jothing	Dell to Note 1.	· His wast
Me Des wine 12	Ham note in	10 1 lection
The parties of the control of the co	The state of the s	Burne Daylor.
Noster Plants Present		
Nectar Plants Present: Same Co	premous.	
Quino Sighting D	ate: GPS Location:	
Photographs Taken:		
1.	2.	12
4.	5.	3.
7.	8.	6.
10.	11.	12.
	12/200	***

Quino Checkerspot	General Form	Vind form Friend pry Time Sough Private pry Date 4 27 Survey Segmi	ent #2	Adult Survey
urveyor D	ner	Date 4 27 11	Survey Week Number	04
uryay Partner(c)	A		.1 .	7
			The state of the s	1
	Portion Surv	eyed: Elevation	on: Max 1200 Min 4	ecc
otal Acres: Time (24 hr)	Portion Surv	eyed: Elevation	on: Max 700 Min 4 Wind (range)	Temp (F)

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start / C 00	8%	clear patchy overcast drizzle shower	2-0	63 K
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
300		clear patchy overcast drizzle shower		0
Stop	P	clear patchy overcast drizzle shower	2-10	THEF

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	Count (Total)	Hill- toppin
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)	(1000)	оорран
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)	-	_
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)	-	
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	1	-
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)	-	
Nymphalis antiopa (Mourning Cloak)				127	
Basilarchia lorquini (Lorquin's Admiral)			Apodemia mormo (Mormon Metalmark)	10	
Junonia coenia (Common Buckeye)			Papilionidae (Swallowtails)		
Vanessa annabella (West Coast Lady)		_	Papilio eurymedon (Pale Swallowtail)		2
Vanessa atalanta (Red Admiral)			Papilio rutulus (Western Tiger Swallowtail)	4	(1)
Vanessa cordui (Painted Lady)			Papilio zelicaon (Anise Swallowtail)		0
			Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangetip)		
Danaidae			Anthocharis sara (Sara's Orangetip)	3	
Danaus gilippus (Queen)			Pleris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)		_
Hesperidae			Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	-9	_
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	U	_
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrida)		
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)			3.175.00		
Ochlodes agricola (Rural Skipper)		-			
ycaenidae (Hairstreaks)	1	-			
Atlides halesus (Great Purple Hairstreak)			1 (2)		
Incisalia augustinus (Western Brown Elfin)			- OM / /		
Callophrys perplexa (Perplexing Hairstreak)			10000		
Strymon melinus (Gray Hairstreak)				-	
Glaucopsyche lygdamus (Southern Blue) 744 ///	8	-			
Icarcia acmon (Acmon Blue)	3	-			
Celastrina ladon (Echo Blue)	2				

Surveyor	Segment #		Date:
Comments:			
Comments			
Plant Communities and Ha	abitat Information:		
		19180 1919	
Host Plants Present:	7 - 7 - 7		
Nectar Plants Present:			
Quino Sighting	Date:	GPS Location:	
	Date	Gr 3 Location:	
Photographs Taken:			
1.	2.	3.	
4.	5.	6.	
7.	8.	9.	
10.	11.	12.	

Quino Checkerspot General Form

Location Survey Segment A COA

Survey Partner(s)

Total Acres: Portion Surveyed: Elevation: Max 4200 Min 3820

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start / D -	20/	clear patchy overcast drizzle shower	4-8mph	73 6
	1	clear patchy overcast drizzle shower		
541		clear patchy overcast drizzle shower	1	
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
nie.		clear patchy overcast drizzle shower		
Stop 245	0%	clear patchy overcast drizzle shower	4-10 mph	15%

Habitat onsite (circle as applicable): hilltops ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	(Total)	Hitl- topping
Nymphalidae (Brush Footed Butterflies)		L=	Leptoles marina (Marine Blue)	1	
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)	3	
Charidryas gabbii (Gabb's Checkerspot)		Į	Everes amyntula (Western Tailed-Blue)	1	
Phycoides mylitta (Mylitta Crescent)		1	Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)	1	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	-	
Junonia coenia (Common Buckeye)			Papilio eurymedon (Pale Swallowtail)	1	1
Vanessa annabella (West Coast Lady)			Papilio rutulus (Western Tiger Swallowtail)	-	
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowtail)		
Vanessa cardui (Painted Lady)	6		Pieridae (Whites and Orangetips)	+	
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangetip)		
Danaidae		150	Anthocharis sara (Sara's Orangetip)	10	
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)	12	
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)		_
Hesperidae			Colias eurytheme (Orange Sulphur)	1	
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	1/-	_
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	6	
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)	\vdash	
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)					
Ochlodes agricola (Rural Skipper)			4	-	
ycaenidae (Hairstreaks)			1 = 101		
Atlides halesus (Great Purple Hairstreak)			form !		
Incisalia augustinus (Western Brown Elfin) \\\	3		7101	-	
Callophrys perplexa (Perplexing Hairstreak)	U				_
Strymon melinus (Gray Hairstreak)				-	
Glaucopsyche lygdamus (Southern Blue)	5			-	-
Icarcia acmon (Acmon Blue) (11)	10				-
Celastrina ladon (Echo Blue)	10			-	
Inicions Blue My	5				

Quino	Checkerspot	General	Form
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Portion Surveyed:

Location Manzan

Survey Partner(s)
Total Acres:

	QB ~	uit Survey
	Survey Segment 7 as formmost oft.	alignment
Date _	4/28/11 Survey Week Number 4	cary roment

Elevation: Max 4210 Min 3870

Time (24 hr)	% Cloud	Sky	Wind (range)	Town (E)
Start 10:00	00	clear patchy overcast drizzle shower	4-8 mah	730
		clear patchy overcast drizzle shower	- Trigoria	10
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 2:31)	0/0	clear patchy overcast drizzle shower	4-8 mph	710

Habitat onsite (circle as applicable): hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources. Collinsia.

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	Count (Total)	Hill-
Nymphalidae (Brush Footed Butterflies)		12-30 = N	Leptotes marina (Marine Blue)	(10tab)	toppii
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)	+	-
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)	1	
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	-	
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		-
Nymphalis antiopa (Mourning Cloak)				0	
Basilarchia lorquini (Lorquin's Admiral)			Apodemia mormo (Mormon Metalmark)	5	1
Junonia coenia (Common Buckeye)			Papilionidae (Swallowtails)		11
Vanessa annabella (West Coast Lady)			Papilio eurymedon (Pale Swallowtail)		
Vanessa atalanta (Red Admiral)		_	Papilio rutulus (Western Tiger Swallowtail)	1	1
Vanessa cardui (Painted Lady)	-	-	Papilio zelicaon (Anise Swallowtail)		
Vanessa virginiensis (American Lady)			Pieridae (Whites and Orangetips)		
Danaidae	-		Anthocharis cethura (Desert Orangetip)		
			Anthocharis sara (Sara's Orangetip)		-
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)	2	-
desperidae			Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	1	
Hylephila phyleus (Fiery Skipper)			Ewema nicippe (Sleepy Orange)	-	_
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		_
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:	-	
Erynnis propertius (Propertius Duskywing)	1	1	Darving and other	-	
Ochlodes agricola (Rural Skipper)		1	- Larry Chelphan		
ycaenidae (Hairstreaks)					
Atlides holesus (Great Purple Hairstreak)		-			
Incisalia augustinus (Western Brown Elfin)			9 , 19	-	
Callophrys perplexa (Perplexing Hairstreak)	12	1	TOTAL	-	
Strymon melinus (Gray Hairstreak)		1		-	
Glaucopsyche lygdamus (Southern Blue)		-			
carcia acmon (Acmon Blue)	1.	-			
Celastrina ladon (Echo Blue)					

Surveyor	Segment #	Date:
Comments:		
Plant Communities and Hal	bitat Information:	
Host Plants Present:	13 c 19	
Collinsia 7t, 2	2 30	
I Di D		
Nectar Plants Present:	1.1-	
wini thering pro	more golden navino bys	HV S. DOGOM Freder buch frances
Dritt lina baras		show in a deby only a wall larkers.
Ummor Clivan Kins	grand rank wrote dars	+ proporty gione green proper arresport
Quino Sighting	Date: G	PS Location:
otographs Taken:		
- Tunchi	2.	
	5.	3.
	8.	9.
).	11.	12.

Surveyor ___

Location MAN			Survey Segment S 4 1 = 11	n= T-0
SurveyorB1 Survey Partner(s)	NONE NONE	Date 4	Survey Segment SouTH 26/11 Survey Week	Number 5
Total Acres:	Portion Surveyed:	ALL	Elevation: Max	Min

Tin	ne (24 hr)	% Cloud	Sky	Wind (range)	T (D
Start	1000	0	(clear) patchy overcast drizzle shower	5-12 W	Temp (F)
	1100	0	(clear) patchy overcast drizzle shower		61
	1200	0	clear patchy overcast drizzle shower	3-6 W	65
	1300	0	clear patchy overcast drizzle shower	2-7W	66
	1400	Ð	clear patchy overcast drizzle shower	2-7W	67
			clear patchy overcast drizzle shower	0 / 14	98
Stop	1500	0	clear patchy overcast drizzle shower	4-11 W	68

Habitat onsite (circle as applicable): hilltops (ridge) (rock outcrops open soils) soil crusts, clay soils (old roads) Plantago, Castilleja, Cordylanthus, Antirrhinum (nectar sources)

Butterfly Species	Cou (Tot		Butterfly Species	Count	
Nymphalidae (Brush Footed Butterflies)		1	Leptotes marina (Marine Blue)	(Total)	toppin
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)	-	
Euphydras chalcedona (Chalcedon Checkerspot)		-	A 01.1	-	-
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)	2	0
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	-	
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)	-	
Nymphalis antiopa (Mourning Cloak)			V (nodemic ways (N.	-	
Basilarchia lorquini (Lorquin's Admiral)			X Apodemia mormo (Mormon Metalmark) / 5 / 0, 5	30	0
X Junonia coenia (Common Buckeye) /	1	0	Papilionidae (Swallowtails)		
Vanessa annabella (West Coast Lady)		-	X Papilio eurymedon (Pale Swallowtail)	1	0
Vanessa atalanta (Red Admiral)			Papilio rutulus (Western Tiger Swallowtail)		
Vanessa cardui (Painted Lady)		-	Papilio zelicaon (Anise Swallowtail)		
Vanessa virginiensis (American Lady)		-	Picridae (Whites and Orangetips)		
Danaidae	_		Anthocharis cethura (Desert Orangetip)		
Danaus gilippus (Queen) X Anthocharis sara (Sara's Orangetip) 1, /		2	0		
Danaus plexippus (Monarch)			Pieris rapae (Cabbage White)		
lesperidae		_	Pontia protodice (Checkered White)		
			Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)			X Colias harfordii (Harford's Sulphur) /	7	0
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	1	_
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)	2	0	Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)	1	0	The state of the s		
Ochlodes agricola (Rural Skipper)			ERYNNIS SP. 1 ICARICIA LUPINI 11,2 EUCHLOE SP. 2	1	0
ycaenidae (Hairstreaks)			EMICIETAL LUPINI 1),2	4	0
Atlides halesus (Great Purple Hairstreak)			EUCHCOE Sp. 2	2	0
Incisalia augustimis (Western Brown Elfin)			HARLIER LIGHT		
Callophrys perplexa (Perplexing Hairstreak) 1	1	0	HORNED LIZARD .	4 .	-
Strymon melinus (Gray Hairstreak)	- 1	0		1	
Glaucopsyche lygdamus (Southern Blue) /	1	_			
leareia aemon (Aemon Blue) 1,1,3, 1	1	0			
Celastrina lador (I-cho Blue)	6	0			
	/	0			\neg

Surveyor BILL GENDRON Segment # So. OF I-8 Date: 4/26/11

MANZANITA

Comments:		WALL CLEAD CHIEC
WARM:	DAY WITH MODERATE	NINDS AND CLEAR SKIES.
	2 10000000	ORMO IS VERY COMMON. CE. ALL LEP FAMILIES ARE ENEAR END OF ADULT
14 SP	CIES OBSERVED. A. M.	E ALL IEP FAMILIES ARE
OTHER	SPECIES ARE SCHOOL	ENEAR END OF ADULT
FLYIN	19. EARLY SPECIES AN	E NETHE STEEL
SEAS	24	
	AR RESOURCES ARE A	RUNIDANT
	QCB HOST PLANTS N	PERE POUND.
NO	260 1031 1511113	
	177 1 to 4 for smoothers	
Plant Communities ar	ad Habitat Information:	
DEZE	RT CHAPARRAL	
Host Plants Present:		
	NE FOUND	
.,,,		
Nectar Plants Presen	t:	
CRY	PTANTIFA MUSTAROS, LA	STHENIA, YARROW, MANZANITA
ARA	BIS. ASTERS, AMSINK	CIA, CEANOTHUS, LUPINES,
CHI	4	
☐ Quino Sighting	NONE Date:	GPS Location:
Photographs Taken:	NONE	
l.	2.	3.
4.	5-	6.
7.	8.	9.
10.	11.	12.

Location Man	Marita Wind Farn	Λ	Survey Segment La Posta Co	18 - W.
SurveyorS,	THUNK	Date	4/27/11 Survey Week Number	Tare verice
Survey Partner(s)			- Janes meet runner _	5-
Total Acres:	Portion Surveyed:		Elevation: Max Min_	

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 10:00	0%	clear patchy overcast drizzle shower	2-lemph	1,34
		clear patchy overcast drizzle shower		00
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 2:30	0%	clear patchy overcast drizzle shower	2-4 mah.	720

Habitat onsite (circle as applicable); hilltops, ridges, rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	(Total)	Hill-
Nymphalidae (Brush Footed Butterflies)		7.15 -2.	Leptotes marina (Marine Blue)	(10tal)	toppin
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)	-	-
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Bluc)	-	
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	-	_
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)				0.5	-
Basilarchia lorquini (Lorquin's Admiral)			Apodemia mormo (Mormon Metalmark)	20	
Junonia coenia (Common Buckeye)	D		Papilionidae (Swallowtails)		2 -
Vanessa annabella (West Coast Lady)	10		Papilio eurymedon (Pale Swallowtail)	- T	
Vanessa atalanta (Red Admiral)	-		Papilio rutulus (Western Tiger Swallowtail)		
Vanessa cardui (Painted Lady)	+		Papilio zelicaon (Anise Swallowtail)		
			Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)	1		Anthocharis cethura (Desert Orangetip)		
Danaidae			Anthocharis sara (Sara's Orangetip)	4	
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)		-
Hesperidae			Colias eurytheme (Orange Sulphur)	-	
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)		_
Hylephila phyleus (Fiery Skipper)	1		The state of the s	-	
Pyrgus albescens (White Checkered-Skipper)			Ewema nicippe (Sleepy Orange)		
Erynnis funeralis (Funereal Duskywing)			Satyridae (Satyrids)		
			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Moumful Duskywing)			OTHERS:	-	-
Erynnis propertius (Propertius Duskywing)			Unidat Www Ht	5	
Ochlodes agricola (Rural Skipper)			MANAGER ACID TO THE PERSON NAMED IN COLUMN TO THE PERSON NAMED IN	0	
ycaenidae (Hairstreaks)					
Atlides halesus (Great Purple Hairstreak)		_	Total		
Incisalio augustinus (Western Brown Elfin)			10184		
Callophrys perplexa (Perplexing Hairstreak)			(111)	-	
Strymon melinus (Gray Hairstreak)			(44)	-	
Glaucopsyche lygdamus (Southern Blue)		-			
Icarcia acmon (Acmon Blue)	5	-			
Celastrina ladon (Echo Blue)	-				-

Comments:			
1 1 1 1 1 1 1			
Caralina	beginning to dry	out Calinsia i	11/11
but the stice	Shout Sonditors	see good, not a	Rote
- more great	an Dey.		
7			
lant Communities and Habi	itat Information		
	margary l		
Swamus, C	vaparx		
(N P			
lost Plants Present:			
allersia,			
ectar Plants Present:			
lop gilia, tidel	eyeck, pagain flower his	ver pold Rights, Rock wass	1001 and 1
hite laying phan	ulia wall timer borante 10	voine mine lypine 11778	
day belief eyes, per		7 1000	- g crany
0 1			
Quino Sighting	Date:	GPS Location:	
tographs Taken:			
o april rancin	12		
	2.	3.	
	5.	6.	
	8.	9.	
	11.	12.	

Quino Checkerspot General Form

Adult Survey

Location MAN	2 Ant - This	2 Thu Survey Se	gment # 2	
Surveyor	endren	(Date 4/27)1	Survey Week	Number 5
Total Acres:	Portion Surveyed:	ce to former Elev	ation: Max	Min

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start / 0 22	Ø.	clear patchy overcast drizzle shower	2-10	6312
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Habitat onsite (circle as applicable): filltops, ridges, rock outcrops, open soils, soil crusts, clay soils, fild roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Butterfly Species	(Total)	Hill- topping	Butterfly Species	(Total)	Hill- toppin
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)	(1111)	торри
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)		t pour extra	Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		-
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	+	
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)		-
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	+	
Junonia coenia (Common Buckeye)				-	
Vanessa annabella (West Coast Lady)			Papilio eurymedon (Pale Swallowtail)	-	
Vanessa atalanta (Red Admiral)			Papilio rutulus (Western Tiger Swallowtail)	-	
l'anessa cardui (Painted Lady)			Papilio zelicaon (Anise Swallowtail)		
Vanessa virginiensis (American Lady)			Pieridae (Whites and Orangetips)	1	
Danaidac			Anthocharis cethura (Desert Orangetip)		
Danaus gilippus (Queen)	-		Anthocharis sara (Sara's Orangetip)		
Danaus plexippus (Monarch)			Pleris rapae (Cabbage White)		
			Pontia protodice (Checkered White)		
Hesperidae			Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)	-		Colias harfordii (Harford's Sulphur)		
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)		
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:	-	_
Erynnis propertius (Propertius Duskywing)				+ +	
Ochlodes agricola (Rural Skipper)				-	_
ycaenidae (Hairstreaks)				-	
Atlides halesus (Great Purple Hairstreak)					
Incisalia augustinus (Western Brown Elfin)					_
Callophrys perplexa (Perplexing Hairstreak)				-	
Strymon melinus (Gray Hairstreak)					
Glaucopsyche lygdamus (Southern Blue)				-	
Icarcia acmon (Acmon Blue)		-			
Celastrina ladon (Echo Blue)					

11.

12.

10.

	NZANITA		Survey Segment SEC7 4/27/11 Survey Week	70N Z
Surveyor BIL	LGENDRON	Date	4/27/11 Survey Week	Number =
Survey Partner(s)_	NONE		Janey week	Number 5
Total Acres:	Portion Surveyed:	ALL	Elevation: Max	Min

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start / 600	0	clear patchy overcast drizzle shower	4-14 NE	62
1180	0	clear patchy overcast drizzle shower	4-11 NE	64
1200	0	clear patchy overcast drizzle shower	4-14 NE	67
1300	0	clear patchy overcast drizzle shower	6-13 NE	69
1400	0	clear patchy overcast drizzle shower	4-10 NE	68
1500	0	clear patchy overcast drizzle shower	2-7 NE	69
Stop 1600	0	olear patchy overcast drizzle shower	4-10 NE	69

Habitat onsite (circle as applicable) (hilltops) (idges) (ock outcrops, open soils soil crusts, clay soils (old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum (nectar sources.)

Nymphalidae (Brush Footed Butterflies) Euphydras editha quino (Quino Checkerspot) Euphydras chalcedona (Chulcedon Checkerspot) Charidryas gabbii (Gabb's Checkerspot) Phycoides mylitta (Mylitta Crescent) Thessalia leanira (Leanira Checkerspot) Nymphalis antiopa (Mourning Cloak) Basilarchia lorquini (Lorquin's Admiral) X Junonia coenia (Common Buckeye) 5, 2, 5 Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa virginiensis (American Lady)	12	0	Leptotes marina (Marine Blue) Philotes sonorensis (Sonoran Blue) Plebejus melissa (Melissa Blue) Everes amyntula (Western Tailed-Blue) / Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) 5, 10,14 Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail)	/ 25	D
Euphydras chalcedona (Chalcedon Checkerspot) Charidryas gabbii (Gabb's Checkerspot) Phycoides mylitta (Mylitta Crescent) Thessalia leanira (Leanira Checkerspot) Nymphalis antiopa (Mourning Cloak) Basilarchia lorquini (Lorquin's Admiral) X Junonia coenia (Common Buckeye) 5, 2, 5 Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	12	0	Philotes sonorensis (Sonoran Blue) Plebejus melissa (Melissa Blue) **Everes amyntula (Western Tailed-Blue) / Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) **Apodemia mormo (Mormon Metalmark) 5, 10,14 Papilionidae (Swallowtails) **Papilio eurymedon (Pale Swallowtail) /	1 25	
Charidryas gabbii (Gabb's Checkerspot) Phycoides mylitta (Mylitta Crescent) Thessalia leanira (Leanira Checkerspot) Nymphalis antiopa (Mourning Cloak) Basilarchia lorquini (Lorquin's Admiral) X Junonia coenia (Common Buckeye) 5, 2, 5 Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	12	0	Plebejus melissa (Melissa Blue) **Everes amyntula (Western Tailed-Blue) Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) **Apodemia mormo (Mormon Metalmark) 5, 10,14 Papillonidae (Swallowtails) **Papilio eurymedon (Pale Swallowtail) 7	1 25	
Phycoides mylitta (Mylitta Crescent) Thessalia leanira (Leanira Checkerspot) Nymphalis antiopa (Mourning Cloak) Basilarchia lorquini (Lorquin's Admiral) X Junonia coenia (Common Buckeye) 5, 2, 5 Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	12	0	Everes amyntula (Western Tailed-Blue) Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) Papillonidae (Swallowtails) Papillo eurymedon (Pale Swallowtail)	1 25	
Thessalia leanira (Leanira Checkerspot) Nymphalis antiopa (Mourning Cloak) Basilarchia lorquini (Lorquin's Admiral) X Junonia coenia (Common Buckeye) 5, 2, 5 Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	12	0	Brephidium exilis (Western Pygmy-Blue) Riodinidae (Metalmarks) Apodemia mormo (Mormon Metalmark) 5, 10,14 Papilionidae (Swallowtails) A Papilio eurymedon (Pale Swallowtail)	25	
Nymphalis antiopa (Mourning Cloak) Basilarchia lorquini (Lorquin's Admiral) X Junonia coenia (Common Buckeye) 5, 2, 5 Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	12	ð	Riodinidae (Metalmarks) **Apodemia mormo (Mormon Metalmark) 5, 10,14 Papilionidae (Swallowtails) **Papilio eurymedon (Pale Swallowtail) 7	25	٥
Basilarchia lorquini (Lorquin's Admiral) X Junonia coenia (Common Buckeye) 5, 2, 5 Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	12	ð	Apodemia mormo (Mormon Metalmark) 5, 10,14 Papilionidae (Swallowtails) Papilio eurymedon (Pale Swallowtail) 7	25	٥
X Junonia coenia (Common Buckeye) 5, 2, 5 Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	12	ð	Papilionidae (Swallowtails) **Papilio eurymedon (Pale Swallowtail) /	1	0
Vanessa annabella (West Coast Lady) Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	12	0	** Papilio eurymedon (Pale Swallowtail) /	1	*
Vanessa atalanta (Red Admiral) X Vanessa cardui (Painted Lady)	/				
X Vanessa cardui (Painted Lady)	1				
	1		Papilio zelicaon (Anise Swallowtail)		
Vanessa virginiensis (American Lady)		0	Pieridae (Whites and Orangetips)		
Danaidae			Anthocharis cethura (Desert Orangetip)		
Danaus gilippus (Queen)		-	Anthocharis sara (Sara's Orangetip) /	/	0
Danaus plexippus (Monarch)			Pieris rapae (Cabbage White) Pontia protodice (Checkered White)		
Hesperidae					
X Heliopetes ericetorum (Northern White-Skipper) /	1		X Colias eurytheme (Orange Sulphur) ✓	1	0
Hylephila phyleus (Fiery Skipper)	-	0	Colias harfordii (Harford's Sulphur)		
Pyrgus albescens (White Checkered-Skipper)			Eurema nicippe (Sleepy Orange)		
Erynnis fimeralis (Funereal Duskywing)	-		Satyridae (Satyrids)		
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)			The state of the s	-	
Ochlodes agricola (Rural Skipper)			DRASTERIA MOTH 1,1	2	0
ycaenidae (Hairstreaks)		-	ERYNNIS BRIZO 1		0
Atlides halesus (Great Purple Hairstreak)		-	HESPERIA JUBA 1,2	3	0
Incisalia augustimis (Western Brown Elfin)		-			0
(Callophrys perplexa (Perplexing Hairstreak) 2	2	0	EUCHLUE SP. 2	2	0
Strymon melinus (Gray Hairstreak)	4	0			
Glaucopsyche lygdamus (Southern Blue)	-	-			
Jearesa aemon (Aemon Blue) 1,1,2,1	-	2			
Celastrina ladar (Echo Blue)	5	0			

Surveyor BILL GENDRON Segment # SECTION 2 Date: 4/27/11

Comments:	WALL MANERAGE	LUNDS AN	D CLEAR SKIES.
WARM DAY	NITH MUIJERATE	WINDS AN	
			PECIES ARE ON THE INE. BUCKEYES ARE NYMPHALIDAE TO BE
NECTAR E	SOURCES AG	E ABUNDA	N7 ·
NO QCB	HOST PLANTS	WERE FOU	IND.
Plant Communities and Hab	itat Information:	DOMINATE	D BY 115 E AND BUCKWITEAT
MANIZA	NITA CEANOT	HUS CHAN	115 E AND BUCKWITEAT
AREA ?	BURNED WITH	N 10 YEARS	s. GROWTH 13 NOT
P.I.A.I.V.			
Host Plants Present:			
NONE	FOUND		
140.42			
Nectar Plants Present:		0	
AM51NK	· IA, CRY PTANTI	+A, PRIMRO	SE, MUSTARDS, HACELIA, LUPINES,
CEANOTH	15, APABIS, LA	ISTHENIA, P	HACELLA, LUPINES,
	1		
☐ Quino Sighting NON	E Date:	GPS Locati	on:
Photographs Taken: NOA			
			0
1.	2.		3.
4.	2. 5·		6.
	2.		

Outro	Chashann	not Conne	of Farm
Outno	Checkers	DOL Gener	ai rorm

Adult Survey

Location San Dien	Co, Manzarita Ind	1. Res - Survey Segment TELATE PLATE CONFERENCE PD.
Surveyor Get	S- CHATMAN	Date 28 AR 2011 Survey Week Number 5
Survey Partner(s)	NONE	
Total Acres:	Portion Surveyed:	Elevation: Max 4, 450 ftMin 4,050ft.

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 10:30 Am	0	clear patchy overcast drizzle shower	8-10 mph	760
11:30 Am		clear patchy overcast drizzle shower	2-4 mpm	840
12:30 PM		clear patchy overcast drizzle shower	3-8 mph	83°
1:30 pm		clear patchy overcast drizzle shower	6-10 mg/m	88°
2:30 Pm		clear patchy overcast drizzle shower	8-12mm	860
3:00 pm	*	clear patchy overcast drizzle shower	8-12 aph	840
Stop		clear patchy overcast drizzle shower	V. Wallacia Carrier	

Butterfly Species	(Total)	Hill- topping	Butterfly Species	Count (Yotal)	Hitt- toppin
Nymphalidac (Brush Footed Butterflies)		1000000	Leptotes marina (Marine Biue)		
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoren Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)	-	
Charidryas gabbil (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		-
Phycoides mylina (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)	304	
Basilarchia lorquini (Lorquin's Admirel)			Papillonidae (Swallowtails)	24	_
Junonia coenia (Common Buckeye)	7	04	Papilio eurymedon (Pale Swallowtail)	2-	×
Vanessa annabella (West Coast Lady)			Papillo runulus (Western Tiger Swallowtail)		-
Vanessa atalanta (Red Admiral)			Paptilo zelicaon (Anise Swallowiaii)	-	195
l'anessa cardul (Painted Lady)	1		Pieridae (Whites and Orangetips)	+	_
Vonesso virginiensis (American Lady)					
Danaidae			Anthocharis cethura (Desert Orangetip)	-	
			Anthocharts sara (Sara's Orangetip)		
Danaus gilippus (Quoen)	-		Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)	-		Pontia protodice (Checkered White)		
Hesperidae	-		Collas eurytheme (Orange Sulphur)		
Heliopetus ericetorum (Northern White-Skipper)	2		Colics harfordii (Harford's Sulphur)	2	
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	1	-
Pyrgus albascens (White Checkered-Skipper)		0.000	Satyridae (Satyrids)	1 1	
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mousnful Duskywing)			OTHERS:	1	-
Erynnis propertius (Propertius Duskywing)			JUBA SKIPPER	111	
Ochlodes agricola (Rural Skipper)				1 . 1	-
ycacnidae (Hairstreaks)		-	CLOUPLESS SULPHUR		
Ailides halesus (Great Purple Hairstreak)			DAWTY SULPHUR		_
Incisalia augustinus (Western Brown Elfin) Callophrys perplexa (Perplexing Hairstreak)					•
Strymon melinus (Gray Hairstreak)				-	
Glaucopsyche hygdamus (Southern Blue)				-	
Icarcia acmon (Acmon Blue)	7			-	_
Celastrina ladon (Echo Bluc)	2	-		-	

Surveyor AREG CHAMAN Segment # TECATE AINE CAMERAEAR RD. Date: 28 APR 2011

Comments: - GOOD Sueries	CONSTRONS		
- STOREST RETERN	IN SOME AREAS	BOTTERFUE TULBE THE WHAT	
- LODD HABITH	with RIDGES + 1	KLOSTES OF COLLANDS	
- MORNIN MESTE	marks most	COMMON BUTTER FULL IN ASSOCIATION	w
u/ courses A	BUND ANT BRIC	63 Man Frescientian (Buckelega)	
- Bulewaya's No	BAT MOST COMM		
		7	
- SPERE AMPLE	THE ON PROS	MEAR HOST (CORLINGIA)	
W/ NO B	WIND CHECK	BISPOTS DISBURD	
	-		
		AND AND ADDRESS OF THE PARTY OF	
		lear	
Plant Communities and Habitat Infor	mation: SAND	ELMI SCRUB - CETCOCARPUS, Ad	exastoma,
Quercus, Ceanothe	s. From Ro	CLE OUTCROPS + RIDGES	
- Erioconum fascinco	looking - Lotus	Cryptate, Colder garrow	
0	7		
10. 1000		WEST TO SEE STATE OF THE SECOND SECON	
	-		
V Pl P / // :		7 1/	
		THINESE HOUSES IN SEVERAL	
SMMC PATO	HES		
		116 000 000	
GPS coordings	B (UTM) -	115,0562712,3622942	
		115,0562968,3623209	
			-
N D D	1 6 1 6	. 11.	
Nectar Plants Present:	author, Lathe	nia, Golden garrow	
Quino Sighting	D	OPOL	
J Quino Sighting	Date:	GPS Location:	_
Photographs Taken:		iania ii i	
	2		
1. Collinsia PATCHES	2.	3.	
4.	5.	6.	
7.	8.	9.	
10.			

CIREG CH	Apman DId this scoton	
Quino Checkerspot General Form	OPPICE ELW	Adult Survey
Location MANZANITA RIBAL Surveyor CHARMAN	Survey Segment # 3	
Survey Partner(s)	Date 4-28/11 Survey Week Number 5	
Total Acres: Portion Surveyed:	Elevation: Max Min	

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	(Total)	Hill- toppin
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)	(1000)	sopping
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)	1	
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)	-	
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	-	
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)	+	-
Nymphalis antiopa (Mourning Cloak)				-	
Basilarchia lorquini (Lorquin's Admiral)			Apodemia mormo (Mormon Metalmark)		
Junonia coenia (Common Buckeye)			Papilionidae (Swallowtails)		
Vanessa annabella (West Coast Lady)			Papilio eurymedon (Pale Swallowtail)		
Vanessa atalanta (Red Admiral)	-		Papilio rutulus (Western Tiger Swallowtail)		
Vanessa cardui (Painted Lady)			Papilio zelicaon (Anise Swallowtail)		
			Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangetip)		
Danaidae			Anthocharis sara (Sara's Orangetip)	1 1	-
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)	1	_
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)		-
Hesperidae			Colias eurytheme (Orange Sulphur)	1	
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	-	
Hylephila phyleus (Fiery Skipper)				+	
Pyrgus albescens (White Checkered-Skipper)			Eurema nicippe (Sleepy Orange)		
Erynnis funeralis (Funereal Duskywing)			Satyridae (Satyrids) Coenonympha californica (Common California		
Erynnis tristis (Mournful Duskywing)		_	Ringlet) OTHERS:		
Erynnis propertius (Propertius Duskywing)	_		OTHERS:		
Ochlodes agricola (Rural Skipper)	-	-			
ycaenidae (Hairstreaks)		-			
Atlides halesus (Great Purple Hairstreak)	_	-			
Incisalia augustinus (Western Brown Elfin)		-			
Callophrys perplexa (Perplexing Hairstreak)	1	-			
Strymon melinus (Gray Hairstreak)	_	-			
Glaucopsyche lygdamus (Southern Blue)		-			
Icarcia acmon (Acmon Blue)		-		1 00-1	
Celastrina ladon (Echo Blue)		-			
	-				

Surveyor CAMOMAN Segment #			Date: 429 W	
Comments: Plant Communities and Habit	and do do	mar, day,		
Host Plants Present:				
Nectar Plants Present:				
Ouino Sighting	Date:	GPS Location:		
Photographs Taken:				
1.	2.	3	3.	
4.	5.		5.	
7.	8.).	
10.	11.		12.	

Quino Checkerspot General Form

Adult Survey

Surveyor Cert	Do Co. Manzarita	Indian Res. Survey Segment UPPED DIABOLD CAN.	
Survey Partner(s) _	NONE	Date 29 AFR 2011 Survey Week Number 5	
Total Acres:	Portion Surveyed:	Elevation: Max 4/21 ft Min 2929 ft	-

Time (24 hr)	% Cloud	Sky	Wind (range)	T =
Start 10:15	0	clear) patchy overcast drizzle shower		Temp (F)
11:15		clear patchy overcast drizzle shower	4-8mgh	780
12:15	+	clear patchy overcast drizzle shower	4-8 MM	780
1:15	_	clear patchy overcast drizzle shower	4-8 mpc	800
-		clear patchy overcast drizzle shower	7	00
		clear patchy overcast drizzle shower		
Stop		clear patchy overcast drizzle shower		

Butterfly Species	Count (Total)	HAL topping	Butterfly Species	Count	
Nymphalidae (Brush Footed Butterflies)			Leptoles marino (Marino Blue)	(Yotel)	to
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)	-	L
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)	-	L
Charidryos gabbit (Gabb's Checkerspot)					L
Phycoldes mylitta (Mylitta Crescent)		-	Everes amyntula (Western Tailed-Blue)		
Thessalio leanira (Leanira Checkerspot)			Brephidium exilis (Western Pygmy-Blue)		
Nymphalis antiopa (Mourning Cloak)			Riodinidae (Metalmarks)		
Basilarchia lorquini (Lorquin's Admiral)	-		Apodemia mormo (Mormon Metairnark)	30+	0
Junonia coenta (Common Buckeye)	4	-	Papilionidae (Swallowtaits)		
Vanessa annahella (West Coast Lady)	7-	or-	Papillo eurymedon (Pale Swallowtail)	2	,
Vanessa atalanta (Red Admiral)	-		Papilio rututus (Western Tiger Swallowtail)		
Yanessa cardur (Painted Lady)	-		Papillo zelicaon (Anise Swallowbil)	+	_
Vanessa virginiensis (American Lady)			Pieridae (Whites and Orangetips)		-
Danaidae			Anthocharis cethura (Desert Orangetip)	-	-
Danaus gilippus (Queen)			Anthocharis sara (Sara's Orangetip)	+ +	_
14			Pierls rapae (Cabbage White)	+ +	_
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)		
esperidue			Colias eurytheine (Orange Sulphur)	+	
Heliopetes ericetorum (Northern White-Skipper)	3	Y	Colias harfordii (Harford's Sulphur)		_
Hylephilo phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	14	
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrida)	-	
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California	++	
Erynnis tristis (Mournful Duskywing)		-	(Congret)		
Erynnis propertius (Propertius Duskywing)	+ +	-	OTHERS:		_
Ochlodes agricola (Rural Skipper)	+		PHOEBUS SERVINE	2	_
caenidae (Hairstreaks)	-		(clusouss augus)	1	_
tilides halesus (Great Purple Hairstreek)		_	PHOFOUS SEMENT (CLUMOUSS SUPERA) Nathalis # Tole	2	K
ncisalia augustinus (Western Brown Elfin)	-	_		-	-
allophrys perplexa (Perplexing Hairstreak)	+	-			
Irymon melinus (Gray Hainstreak)	-	-			
laucopsyche logdamus (Southern Blue)	-	-			_
arcia acmon (Acmon Blue)		_			
elastrina ladon (Echo Blue)	-	_			-
	2				-

Surveyor GRAT CHATMEN Segment # UPPER DIABOLD CON.

Date: 29 ARR 2011

Comments: - louis o	LES T OPEN ALEA SO.	THE PENK FLICHT) -> TREMANNERS.
- 17111664 E	ALE MOSTLA WORLD IN	ALUCDUMES POTST POTER
- MOST THE	E SPERT MAKE ROCKS O	DUTTEROSS + DROW PREMS
ω	NO QUENO CHELIER	LSE OF BUTTERFLIES DREEMED
-		***
		WANTE WE STATE OF THE STATE OF
Plant Communities and Habit	at Information: Clauses B	UCKWHOMT, CERCOGREPUS, COTTOS BORT,
Manzanita,	(Mamise)	CHARLES, CERTOLORIES, COTTOS DELLES
Man and 17		
- ama 16174	but with no host plant	
- COOD HEBITEL .	at with no host glast	present
		
Host Plants Present: N		
nost Plants Present: //	ONE DOSPANED	
	- N	
Nectar Plants Present: 40	h : 0 + 4 / 11	
F.40	huenic, Cryptanthe, boldon	serrow, Blue dicks
Quino Sighting	Date:	GPS Location:
		- Additional
hotographs Taken:		
1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.
- 1		

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start / C =	6	clear patchy overcast drizzle shower	5-10 mak	60F
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop 2 30	10	clear patchy overcast drizzle shower	5-10 mon	650

Habitat onsite (circle as applicable): hilltops, ridges, tock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources. fan 11810

Hill-**Butterfly Species Butterfly Species** (Total) topping (Total) topping Nymphalidae (Brush Footed Butterflies) Leptotes marina (Marine Blue) Euphydras editha quino (Quino Checkerspot) Philotes sonorensis (Sonoran Blue) Euphydras chalcedona (Chalcedon Checkerspot) Plebejus melissa (Melissa Blue) Charidryas gabbii (Gabb's Checkerspot) Everes amyntula (Western Tailed-Blue) Phycoides mylitta (Mylitta Crescent) Brephidium exilis (Western Pygmy-Blue) Thessalia leanira (Leanira Checkerspot) Riodinidae (Metalmarks) Nymphalis antiopa (Mourning Cloak) Apodemia mormo (Mormon Metaimark) Basilarchia lorquini (Lorquin's Admiral) Papilionidae (Swallowtails) Junonia coenia (Common Buckeye) Papilio eurymedon (Pale Swallowtail) Vanessa annabella (West Coast Lady) Papilio rutulus (Western Tiger Swallowtail) Vanessa atalanta (Red Admiral) Papilio zelicaon (Anise Swallowtail) l'anessa cardui (Painted Lady) Pieridae (Whites and Orangetips) Vanessa virginiensis (American Lady) Anthocharis cethura (Desert Orangetip) Danaidae Anthocharis sara (Sara's Orangetip) Danaus gilippus (Queen) Pieris rapae (Cabbage White) Danaus plexippus (Monarch) Pontia protodice (Checkered White) Hesperidae Colias eurytheme (Orange Sulphur) Heliopetes ericetorum (Northern White-Skipper) Colias harfordii (Harford's Sulphur) Hylephila phyleus (Fiery Skipper) Eurema nicippe (Sleepy Orange) Pyrgus albescens (White Checkered-Skipper) Satyridae (Satyrids) Erynnis funeralis (Funereal Duskywing) Coenonympha californica (Common California Ringlet) Erynnis tristis (Mournful Duskywing) OTHERS: Erynnis propertius (Propertius Duskywing) Ochlodes agricola (Rural Skipper) Lycaenidae (Hairstreaks) Atlides holesus (Great Purple Hairstreak) Incisalia augustinus (Western Brown Elfin) Callophrys perplexa (Perplexing Hairstreak) Strymon melinus (Gray Hairstreak) Glaucopsyche lygdamus (Southern Blue) Icarcia acmon (Acmon Blue) Celastrina ladon (Echo Blue)

11.

12.

	A 6/49	pomen has note	to Rd	techon
Quino Checkerspot	General Form	, ,		Adult Survey
Location A. Al Surveyor Dat Survey Partner(s)	tonen	ne location Survey Segm Date 5/5/11	nent #3 6A Survey Week Number	拉 5
Total Acres:	_ Portion Surveye	ed: Elevati	on: Max 4000 Min	3920
Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 10 -	0	clear patchy overcast drizzle shower	2-4 mph	78F
		clear patchy overcast drizzle shower	- Topic	
1200	9	clear patchy overcast drizzle shower	2-4	200
		clear patchy overcast drizzle shower		
100	B	clear patchy overcast drizzle shower	2.7	821
~ ~ ~ ~	(clear patchy overcast drizzle shower		
Stop 230	9	clear patchy overcast drizzle shower	2-4	Q1 P

Butterfly Species	(Total)	Hill- topping	Butterfly Species	Count (Total)	Hill- toppin
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)		-
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)	3	
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)	-	
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		_
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)	26	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	040	
Junonia coenia (Common Buckeye)	6		Papilio eurymedon (Pale Swallowtail)		~
Vanessa annabella (West Coast Lady)					0
Vanessa atalanta (Red Admiral)			Papilio rutulus (Western Tiger Swallowtail)		
Vanessa cardui (Painted Lady)	12		Papilio zelicaon (Anise Swallowtail)		
Vanessa virginiensis (American Lady)			Pieridae (Whites and Orangetips)		
Danaidae			Anthocharis cethura (Desert Orangetip)		
Danaus gilippus (Queen)			Anthocharis sara (Sara's Orangetip)	1(
			Pieris rapae (Cabbage White)	30	
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)	8	
Hesperidae			Colias eurytheme (Orange Sulphur)	-	
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur) M HL III	12	
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)		
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)	3		Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:	-	
Erynnis propertius (Propertius Duskywing)	1				
Ochlodes agricola (Rural Skipper)					
ycaenidae (Hairstreaks)					
Atlides holesus (Great Purple Hairstreak)		_	1		
Incisalia augustinus (Western Brown Elfin)	7		11 11 11	-	
Callophrys perplexa (Perplexing Hairstreak)			1009		
Sirymon melinus (Gray Hairstreak)		-	1101	-	
Glaucopsyche hygdamus (Southern Blue)	11		1		
Icarcia acmon (Acmon Blue)	8				
Celastrina ladon (Echo Blue)	10			-	

0	mino	Charlenge	oot General	F
N.	onius	Checkers	oot General	Form

Adult Survey

	enita wind farm	Survey Segment Fostern Wast Newer all grown to
Survey Partner(s)	MTanner	Date 5/5/11 Survey Week Number W125
Total Acres:	Portion Surveyed:	Elevation: Max Min
Time (24 hr)	% Cloud	CI

Tim	e (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start	10:00	0%	clear patchy overcast drizzle shower	5-7mph	750
			clear patchy overcast drizzle shower	mpn	/ 3
			clear patchy overcast drizzle shower	\	
			clear patchy overcast drizzle shower		
			clear patchy overcast drizzle shower		
			clear patchy overcast drizzle shower	1	
Stop -	2:00	0.10	clear patchy overcast drizzle shower	3-7.4	800

Butterfly Species	(Total)	Hill- topping	Butterfly Species	Count (Total)	Hill-
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)	(1002)	toppin
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)	+	-
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		_
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	+	-
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)	+	
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)	1	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	5	
Junonia coenia (Common Buckeye)	12				
Vanessa annabella (West Coast Lady)			Papilio eurymedon (Pale Swallowtail)		
Vanessa atalanta (Red Admiral)			Papillo rutulus (Western Tiger Swallowtail)		
Vanessa cardui (Painted Lady)	-	7.2	Papilio zelicaon (Anise Swallowtail)		
Vanessa virginiensis (American Lady)		-	Pieridae (Whites and Orangetips)		
Danaidae	- 1		Anthocharis cethura (Desert Orangetip)		
Danaus gilippus (Queen)			Anthocharis sara (Sara's Orangetip)		-
			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)	9	
lesperidae			Colias eurytheme (Orange Sulphur)	+ +	
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	8	
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	1	-
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)	1	
Erynnis funeralis (Funereal Duskywing)	1		Coenonympha californica (Common California Ringlet)		_
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)	3				
Ochlodes agricola (Rural Skipper)	-	-			
ycaenidae (Hairstreaks)		-	1 25	1	
Atlides holesus (Great Purple Hairstreak)			Tom		
Incisalia augustinus (Western Brown Elfin)			1-1011		
Callophrys perplexa (Perplexing Hairstreak)	1.72				
Strymon melinus (Gray Hairstreak)		-			
Glaucopsyche lygdamus (Southern Blue)		-			
Icarcia acmon (Acmon Blue)	12	-			
Celastrina ladon (Echo Blue)	1	-			

.1	0
4	'
-	-

Location	Man Taruta Wind	Fevin Survey Segment la Pusto copina huading der	gi.
Surveyor	Savah Farmer	Date 3/4/11 Survey Week Number 3616	
Survey Partner(s)	Marshall Payman		
Total Acres:	Portion Surveyed:	Elevation: Max Min	

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)	
Start 9:30	0%	clear patchy overcast drizzle shower	12-5 mpn	430	
		clear patchy overcast drizzle shower	1		
		clear patchy overcast drizzle shower			
		clear patchy overcast drizzle shower			
		clear patchy overcast drizzle shower			
		clear patchy overcast drizzle shower			
Stop 2:(77)	0%	clear patchy overcast drizzle shower	2-5 mph	800	

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	Count (Total)	Hill- topping
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)		
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)	1		Apodemia mormo (Mormon Metalmark)	25	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	-	_
Junonia coenia (Common Buckeye)	15		Papilio eurymedon (Pale Swallowtail)	1	
Vanessa annabella (West Coast Lady)	1		Papilio rutulus (Western Tiger Swallowtail)	1	
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowtail)	1	-
Vanessa cardui (Painted Lady)			Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)	-				
Danaidae			Anthocharis cethura (Desert Orangetip)		
TO A STATE OF THE CONTRACT OF			Anthocharis sara (Sara's Orangetip)		_
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)		
Hesperidae	-		Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	5	
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	1	
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)			Darrity Sulphen 11	2	
Ochlodes agricola (Rural Skipper)			Armined blue HH 144 44	6	_
Lycaenidae (Hairstreaks)		-	Un sont velsen	10	
Allides halesus (Great Purple Hairstreak)			PANO.	10	
Incisalia augustinus (Western Brown Elfin)					
Callophrys perplexa (Perplexing Hairstreak)			10-gul		
Strymon melinus (Gray Hairstreak)			1 71 1		
Glaucopsyche hygdamus (Southern Blue)					
Icarcia acmon (Acmon Blue)	3		,		
Celastrina ladon (Echo Blue)				-	

Comments:			
Colefula ormodel Vair van	lands colle	a few portets	of healthy fram seasonal steens water
Vision 1			
lant Communities and Habitat	Information:		
Chanse ch	aymaral coas	the sage scr	6
A Propried Land Williams Committee C	//	0	
I Di D		-	
Host Plants Present:	2 10	- 1	1.00
Collevia 350	Callysia a	rapeal TO BE	healthy 3 robust
in full bleen	Scattered 4	iringhert ende	re pelien
		0	
Nectar Plants Present:			
maules popour a parada listina A	ellen faction ()	men Waru l	men lings thus
Quino Sighting	Date:	GPS Location:	
hotographs Taken:			
notographs Taken:	2.		3.
	5.		6.
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	0.		71
0.	11.		12.

Stop

Location SAN AL Surveyor APA-C	ELO CO. M	MIAN	7A IN	Date 6	Surve	y Segment	TELATE RINGE	CHNEGGENE PD
Survey Partner(s) Total Acres:	NONE			_ Date 5	0	Acres 1	Max 44504 Mi	
78-2000	. ** FT				LOSE CONTRACTOR	and value of the	11 12 2 2 12 10 10 10 10 10 10 10 10 10 10 10 10 10	1100044
Start 10:00 Am	8-	clear	patchy	overcast	drizzle	shower	3-7 mph	740
11:00 Am	1	7	patchy	overcast		-	5-8 mgh	790
12:00 Pm		clear	patchy	overcast	drizzle	shower	7-10 mm	830
1:00 pm		clear	patchy	overcast	drizzle	shower	6-10 np	850
2:00 Pm		clear	patchy	overcast	drizzle	shower	7-11ak	860
2:30 pm		clear	patchy	overcast	drizzle	shower	6-10 inge	850

		. 30	4. 東京を対して変し	4.	
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)		-
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonorun Bluc)	1	
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Mebssa Blue)		
Charidryas gabbil (Gabb's Checkerspot)	a lac		Everes amyntula (Western Tailed-Blue)	1	†
Phycoides myliata (Mylitta Crescent)	N. Same	Caracia III	Brephidium exilis (Western Pygmy-Blue)		-
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)	1	-
Nymphalis antiopa (Mourning Clock)	1		Apodemia mormo (Mormon Mctalmark)	30F	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtalls)	100	
Junonia coenia (Common Buckeye)	5	*	Papilto surymedon (Pale Swallowtail)	13	-
Vanessa annabella (West Coast Lady)	-		Papilio rutulus (Western Tiger Swallowtail)	10	K
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowtail)	-	-
Vanessa cardui (Painted Lady)	2	-	Pieridae (Whites and Orangetips)	-	-
Vanessa virginiensis (American Lady)	1	- market		-	_
Panaidae			Anthocharis cethura (Desert Orangetip)	-	_
Dangus gilippus (Queen)	-		Anthocharis sara (Sara's Orangetip)	2	-
Danaus plexippus (Monarch)	-	-	Pieris rapae (Cabbage White) Pontia protodice (Checkered White)	-	
esperidae	1	-		6	
Heliopetes ericetorum (Northern White-Skipper)	3	*****	Colias eurytheme (Orange Sulphur)	1.	
Hylephila phyleus (Fiery Skipper)	13	_	Colias harfordii (Harford's Sulphur)	10	
Pyrgus albescens (White Checkered-Skipper)	1	-	Eurema nicippe (Sicopy Orange)		
Erynnis funeralis (Funereal Duskywing)			Satyridae (Satyrids)		_
			Coanonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:	-	
Erynnis propertius (Propertius Duskywing)		2000	Nathelis ide	1	-
Ochlodes agricola (Rural Skipper)		- 15	Phoenus semmaelchalles	2	*
(Caenidae (Hairstreaks)			(ulfur)	-	7
Atlides halesus (Great Purple Hairstreak)			1 is lay	-	_
Incisalia augustinus (Western Brown Fifin)					
Callophrys perplexa (Perplexing Huirstreak)					_
Strymon melinus (Gray Hairstreak)				-	_
Glaucopsyche lygdamus (Southern Blue)				-	-
Icarcia acmon (Acmon Blue)	2			-	
	200	-			

Surveyor GRED CHARMAN Segment # TELA

Segment # TELATE PROCE CONLEGRATE Date: 5 may 2011

Comments: - 6000 Super	EX COMPLYDOWS	
- < DINT MOST	Thus ON RIDGES &	ROADS ALEMO SURVEY AREA AND HOST PATCHES.
- NO QUIN	O CHELLERSPOT BUTH	ROADS ALONG SURVEY ALOND AND HOST PATCHES.
- Apademic	nucus - must adn zmedon - fresh mu saru - second ba	edaol
- Papilio eur	zmrdon - frosh me	des hilltopping
- Authodisis	sara - second bo	nules
		44 44 44 44 44 44 44 44 44 44 44 44 44
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	307	
	202 20229 202	
Plant Communities and Ha	bitat Information: <	ame as last (RAG to 28 am 201)
	J.	more as rugge (Kara to as part (and)
Host Plants Present:	Collingia concolne	28 MAZOU)
	(win's = refre to	28 MA 2011)
Marx -		
Nectar Plants Present:	reptarte, Latheric	(valder - acces)
	97	- Jacob Jacob
Quino Sighting	Date:	GPS Location:
Photographs Taken:		
1.	2.	3.
4.	5-	6.
7.	8.	
10.		9.
	11.	12.

CHAPMANS NOTES for this day.

Location /	2 Amita This						
Surveyor (K)	nan	Date 5-5-11	Survey Week Number _	6			
Total Acres:	Portion Surveyed:	Elevation	on: Max Min _				
Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)			

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start / O		clear patchy overcast drizzle shower		
1.		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
7		clear patchy overcast drizzle shower		
Stop /		clear patchy overcast drizzle shower		

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	Count (Total)	Hill- topping
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)		
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		Time
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	7	
Thessalia leanira (Leanira Checkerspot)		1	Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)		
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)		
Junonia coenia (Common Buckeye)		7	Papilio eurymedon (Pale Swallowtail)		
Vanessa annabella (West Coast Lady)			Papilio rutulus (Western Tiger Swallowtail)		
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowtail)		
Vanessa cardui (Painted Lady)			Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangetip)		
Danaidae		- 77	Anthocharis sara (Sara's Orangetip)		
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)	1	
Hesperidae			Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)		
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)		
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)	+	
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		_
Erynnis propertius (Propertius Duskywing)			-177		
Ochlodes agricola (Rural Skipper)					
Lycaenidae (Hairstreaks)				1	_
Aslides holesus (Great Purple Hairstreak)					
Incisalia augustinus (Western Brown Elfin)					
Callophrys perplexa (Perplexing Hairstreak)					
Strymon melinus (Gray Hairstreak)					
Glaucopsyche lygdamus (Southern Blue)					
Icarcia acmon (Acmon Blue)					
Celastrina ladon (Echo Blue)				+ +	

Surveyor	Segment #		Date:
Comments:			
Plant Communities and Ha	abitat Information:		in the second
			19
Host Plants Present:			
Nectar Plants Present:			
Treetin America Areaenta			
Quino Sighting	Date:	GPS Location:	
71			
Photographs Taken:			
4.	2.	3.	CALL PACE TO THE RESIDENCE OF THE PACE TO
7.		6.	
10.	8.	9. 12.	
4.04	11.	12.	

Quino Checkerspot General Form	Adult Cu
Location SAM DIGO Co. MANZAMICA DIPLAS. Location SAM DIGO Co. MANZAMICA DIPLAS. Surveyor CARE UNITARY Date 6 MM ZON Survey Week Number Total Acres: Total Acres:	Gw.
Survey Partner(s) No. W.C.	_@
	3920

WA THE	4		No.		# · # ·	11 全的事者。	
Start 10:30 Am	D	clear pa	tchy overcast	drizzle	shower	6-10 mp	750
11:30 Am		clear par	tchy overcast	drizzle	shower	4-80%	790
12:30 Am		clear par	tchy overcast	drizzle	shower	4-8nh	830
1:00 Am	45	clear par	tchy overcast	drizzle	shower	8-11 wh	840
		clear pat	chy overcast	drizzle	shower		
		clear pat	chy overcast	drizzle	shower		
Stop		clear pat	chy overcast	drizzle	shower		1

	- 32		-	ಿಕ್ಕ
Nymphalidae (Brush Footed Butterfiles)		Lepiotes marina (Marine Blue)	-	
Euphydras editha quino (Quino Checkerspot)		Philotet sonorensis (Sonoran Blue)	-	
Euphydras chalcedona (Chalcedon Checkerspot)		Plebejus melissa (Mclissa Bluc)	_	-
Charidryas gabbii (Gabb's Checkerspot)		Everes amyntula (Western Tailed-Blue)		
Phycoides mylina (Mylitta Crescent)		Brephidium exilis (Western Pygrny-Blue)		
Thessalla leanira (Leanira Checkerspot)		Riodinidae (Metalmarks)	_	-
Nymphalis antiopa (Mourning Clock)		Apodemia mormo (Mormon Metalmark)	Zot-	*
Bastlarchia lorquini (Lorquin's Admiral)		Papilionidae (Swallowialis)	TOS	-
Junania coenia (Common Buckeye)	3	Papillo eurymedon (Pale Swallowiail)	-	-
Vanessa annabella (West Coast Lady)			2	K
Yanessa aiolania (Red Admirul)		Papilio rutulus (Western Tiger Swallowtail)	-	
Vanessa cardui (Painted Lady)	2	Papilio zelicaon (Anise Swallowail)	-	_
Vanessa virginiensis (American Lady)		Pieridae (Whites and Orangelips)	+	
Danaidae		Anthocharis cethura (Desert Orangetip)	-	
Danaus gilippus (Queen)	-	Anthocharis sara (Sara's Orangetip)	1	*
Danaus plexippus (Monarch)	-	Pleris rapae (Cabbage White)		
Hesperidae	1	Pontia protodice (Checkared White)		
Heliopetes ericetorum (Northern White-Skipper)		Collas eurytheme (Orange Sulphur)		
	2-	Collas harfordii (Harford's Sulphur)	7	- 1
Hylephila phyleus (Ficry Skipper)		Eurema nicippe (Sleepy Orange)		100
Pyrgus albescens (White Checkered-Skipper) Erynnis funeralis (Funereal Duskywing)		Satyridae (Satyrids)		
		Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)		OTHERS: Nothalis int	11	_
Erynnis propertius (Propertius Duskywing)		Taringui, Tolk	+++	
Ochlodes agricola (Rutal Skipper)			+	_
ycaenidae (Hairstreaks)			-	_
Allides halesus (Great Purple Hairstreak)			+-+	
Incisalia augustinus (Western Brown Elfin)			+ +	-
Callophrys perplexa (Perplexing Hairstreak)			1	
Strymon malinus (Gray Hairstreak)			+	
Glaucopsyche lygdamus (Southern Blue)			1	
Icarcia acmon (Acmon Blue)	11		1	-
Celastrino ladon (Echo Blue)		77810 748		

Surveyor after CHAIMAN	Segment # LUPEYL DINBOLD CON	Date: bum 2011
Surveyor CHERTMAN	Segment a l'Al lore billione Cale	Date. O Property

Comments: - Good wo	NOTORINE CONDITION	
- SPANT TI	INT IN OPEN AGENS!	REAR + HULTOPS NEAR I-8.
- MO DU	UM CUESIOSISPOT B	UTTARFLIES WEILE DROBBYED
- MORRON N	cetramecs - Associa	HIED W BUCKLEST - MOST AGUNDANT
		400
	77.	4.54
		White the same was a second of the same of
1 430000 00 00000000		A CONTROL OF THE PROPERTY OF T
1,000,000,000		
	9	
Plant Communities and Habi	tat Information: Oct	100 29 MPR-2011 (5 MUE)
The contract of the contract o	16-6-7	SAME!
		Marie Transition of the Control of t
Host Plants Present: //	OWE OBSERVED	
Loren - Area - San		
2001 A 1 200 A 1 200 A 1 200 A 1	2000 0000 00	
*		
W		
Nectar Plants Present:	otheric Constate	Rhadde litteria
Co.	Menis, crapiania	Blueduks, bolda yarra.
Quino Sighting	Date:	GPS Location:
Photographs Taken:	•	
	1.	
1.	2.	6.
4-	5.	
7:	8.	9-
10.	11.	34.

rvey Partner(s)			Manzala toke ey Week Number L	2011
otal Acres:	Portion Sur	veyed: Elevation: M	lax 42 40 Min	201
Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 9:45	0%	clear patchy overcast drizzle shower	2-5 mpk	75"
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop / 30	p) /2	olear patchy overcast drizzle shower	0-5-16	200

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species		Hills
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)		
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)	-	
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)	13	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	10	-
Junonia coenia (Common Buckeye)	21		Papilio eurymedon (Pale Swallowtail)		
Vanessa annabella (West Coast Lady)			Papilio rutulus (Western Tiger Swallowtail)		
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowtail)		
Vanessa cardui (Painted Lady)			Pieridae (Whites and Orangetips)		-
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangetip)		
Danaidae			Anthocharis sara (Sara's Orangetip)		_
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)	7	
Hesperidae			Colias eurytheme (Orange Sulphur)	1	
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	8	-
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	2	_
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)			Annohold bene 25	254	_
Ochlodes agricola (Rural Skipper)			The state of	100	-
ycaenidae (Hairstreaks)				1	
Atlides halesus (Great Purple Hairstreak)				11	
Incisalia augustinus (Western Brown Elfin)			1 - 7 1	/	
Callophrys perplexa (Perplexing Hairstreak)			1-1-1	-	
Strymon melinus (Gray Hairstreak)			/ 1071		
Glaucopsyche lygdamus (Southern Blue)				1	
Icarcia acmon (Acmon Blue)	4			-	
Celastrina ladon (Echo Blue)					-

Surveyor	Segment #		Date:
Comments:		*	
Plant Communities and Habi	tat Information:		
			<u> </u>
Host Plants Present:			
Callensia 604			
Nectar Plants Present:		4	
Galdfield, upply	y daily blue cu	nls, grand pink,	popour, cali penny,
Quino Sighting	Date:	GPS Location:	
hotographs Taken:			
	2.	3	3.
	5.	(5.
	8.	5).
0.	11.	1	2.

Quino Checkerspot General Form Private Prap

Location I-8 North to la Postal Survey Segment #2

Surveyor Dettruen Date 5/(2/11 Survey Week Number 6

Survey Partner(s)

Total Acres: Portion Surveyed: Elevation: Max 4000 Min

Time (24 hr)	% Cloud	Sky	2Wind (range)	Temp (F)
Start 10 -	0	clear patchy overcast drizzle shower	THE	741=
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
	101	clear patchy overcast drizzle shower	6 - 1	9 -
Stop 2 00	10	clear patchy overcast drizzle shower	2-5mph	32 F

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species		Hill- toppin
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)		
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		A
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)		-	Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalrilark)	37	
Basilarchia lorquini (Lorquin's Admiral)	1	(Papilionidae (Swallowtails)	0	
Junonia coenia (Common Buckeye) [M]	10		Papilio eurymedon (Pale Swallowtail)		
Vanessa annabella (West Coast Lady)	10		Papilio rutulus (Western Tiger Swallowtail)		
Vanessa atalanta (Red Admiral)		2-11	Papilio zelicaon (Anise Swallowtail)	1	
Vanessa cardui (Painted Lady)			Pieridae (Whites and Orangetips)	-	-
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangetip)		
Danaidae			Anthocharis sara (Sara's Orangetip)	2	
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)	-	
Danaus plexippus (Monarch)			Pontia protodice (Checkered White) MA	11	
Hesperidae			Colios eurytheme (Orange Sulphur)	1	_
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur) NA IV	0	
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	0	
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)					
Ochlodes agricola (Rural Skipper)		- 0			
yeaenidae (Hairstreaks)					
Atlides holesus (Great Purple Hairstreak)			TOTAL		
Incisalia augustimus (Western Brown Elfin)					
Callophrys perplexa (Perplexing Hairstreak)			98		
Strymon melinus (Gray Hairstreak)					
Glaucopsyche lygdamus (Southern Blue)					
Icarcia acmon (Acmon Blue)	3			-	
Celastrina ladon (Echo Blue)					

Location Man	Januta Wind Farm		Survey Seg	gment 66-7	atlivinst	Dignmont
Surveyor =	avan Farmer	Date _	5/11/11	Survey Week	Number 1	_ 0
Survey Partner(s) Total Acres:	Portion Surveyed:		Elev	ation: Max	Min	-

Time (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start 9:30	0%	clear patchy overcast drizzle shower	2-5 mph	
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
		clear patchy overcast drizzle shower		
Stop	100	clear patchy overcast drizzle shower		

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	Count (Total)	Hill- toppin
Nymphalidae (Brush Footed Butterflies)			Leptotes marina (Marine Blue)		
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark)	3	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	1	
Junonia coenia (Common Buckeye)	2		Papilio eurymedon (Pale Swallowtail)	1	2
Vanessa annabella (West Coast Lady)			Popilio rutulus (Western Tiger Swallowtail)	16	
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowtail)		
Vanessa cardui (Painted Lady)			Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangetip)		
Danaidae			Anthocharis sara (Sara's Orangetip)		
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)	3	7
Hesperidae			Colias eurytheme (Orange Sulphur)	1	
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur)	9	
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	1 / 1	
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)	2	1	Blu 111	4	
Ochlodes agricola (Rural Skipper)			3000 1111	1	_
Lycaenidae (Hairstreaks)			(Tatal)	1	_
Atlides holesus (Great Purple Hairstreak)			78		
Incisalia augustinus (Western Brown Elfin)					
Callophrys perplexa (Perplexing Hairstreak)	1			1 1	
Strymon melinus (Gray Hairstreak)					
Glaucopsyche lygdamus (Southern Blue)					
Icarcia acmon (Acmon Blue)					
Celastrina ladon (Echo Blue)					_

Surveyor	Segment #	<u>-</u>	Date:
Comments:			
	4		
N			
			*
Plant Communities and Habita	at Information:		
		4	343
Host Plants Present:			
Nectar Plants Present:			
Quino Sighting	Date:	GPS Location:	
		OI O LOCATION.	
Photographs Taken:			
1,	2.	3.	
4.	5.	6.	
7.	8.	9.	
10.	11.	12.	

Quino Checkerspot General Form

Adult Survey

Location Size D	BO Co. / MANZAWONA	Date 12 mm 7011 Survey Week Number 7
Surveyor CAR	- CHATMAN	Date [2 mm 701] Survey Week Number
Survey Partner(s) _	NONE	
Total Acres:	Portion Surveyed:	Elevation: Max 44604-Min 41604

		医果豆		# 11	13377 7	
Start 10:30 Am	8	clear) patchy	overcast d	rizzle shower	3-4400	800
11=30 Am	11	clear patchy	overcast d	lrizzle shower	3-5m	840
12:30 Am		clear patchy	overcast d	rizzle shower	4-7mh	870
1:30 Am		clear patchy	overcast d	rizzle shower	3-40ph	880
2>30 Am		clear patchy	overcast d	lrizzle shower	4-8m/m	870
3:70 mm	4	clear patchy	overcast d	trizzle shower	5-8mp	840
Stop		clear patchy	overcast d		ale alements all and	

			- 基金 全型 5 年 3 元 6	£4.	-
Nymphalidae (Brush Footed Butterfiles)			Leptotes marina (Marine Blue)	A	
Euphydras editha quino (Quino Checkerspot)			Philates sonarensis (Sonaran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)	1	
Charidryas gabbil (Gabb's Checkerspot)		- 10	Everes antyntula (Western Tailed-Blue)		-
Phycoides mylina (Mylitta Crescent)			Brephidium exilis (Western Pygrny-Blue)		
Thessalia leanira (Lounira Checkerspot)		-1353	Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Clonk)			Apodemia mormo (Mormon Metalmark)	304	<u></u>
Basilarchia lorquini (Lorquin's Admiral)			Papillonidae (Swallowtails)		
Junonia coenia (Common Buckeye)	5	14.	Popillo eurymedon (Pale Swallowtail)	2	K
Vanessa annabella (West Coast Lady)			Papilio rutulus (Western Tiger Swallowtail)		
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowail)	1	
Vanessa cardui (Painted Lady)	3		Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desert Orangctip)		
Danaidae			Anthocharis sara (Sara's Orangetip)	1	
Dangus gilippus (Queen)			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)		-	Pontla protodice (Checkered White)	2-	
Hesperidae			Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)	Z	×	Colias harfordii (Harford's Sulphur)	12+	1
Hylephila phyleus (Ficry Skipper)			Eurema nicippe (Sleepy Orange)		
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis irisiis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Proportius Duskywing)			Harrie inte	2	
Ochlodes agricola (Rural Skipper)			Terricia nonficols	2	(mare
Lycaenidae (Hairstreaks)		200			
Atlides halesus (Great Purple Hairstreak)					
Incisalia augustinus (Western Brown Elfin)					
Callophrys perplexa (Perplexing Hairstreak)					
Strymon melinus (Gray Hairstreak)		Car T			Janes St.
Glaucopsyche lygdamus (Southern Blue)		-			
Icarcia acmon (Acmon Blue)	1				
Celastrina ladon (Echo Blue)					

Surveyor AMEL CHAFTMAN

Segment # UPPER MILLER LYN Date: 12 mag 2011

Comments: Guest HAB	THE W/NO HOST	RINGED RULL OUTGOOD AND	NERMA SUREGS
	THE IN OFEN AGE	AS, ALDING ROMOS AND	RIACES
- NO	DILLING CHELLERS	E BUTTERFUEL LEGAL	DOSTOLIAN -
- MOROWA,	METALLIANS -4611 1	HUNDANY , ASSOCIAT	Oxiposition witnessel)
- COURS H	ARPORAT - ASSOCIATION	o cut Lotes Scoparias	(Oxiposition wither of)
-			
	5 - 1916:		
	-		
- April 10			
	1.00		1
		The state of the s	
Plant Communities and Hal	bitat Information: CH	MMIG, MAIZANTTA,	CERCOCARPUS, CEAWOTHUS,
	bus	CUS, BUCKSHAMAS,	COTES, OPUNTA
			The state of the s
VV - 4 701 - 4 - 70			
Host Plants Present:	NOWE OBSERVED		
18 - 800-00 Table 18 - 18 - 18 - 18 - 18 - 18 - 18 - 18			
N	6 . //	1 1 1	0. 1.6
Nectar Plants Present:	a Thouse, and suy	eva, Cryptake,	sur dieles
Quino Sighting	Date:	GPS Location:	
- 4			

Photographs Taken:			The state of the s
1.	2.	3-	and the second
4.	5-	6.	
7.	8.	9.	
	11.	15	
10.	11.		

Quino Checkerspo	,	Adult Survey Segment TRANS RIDGE CANEBREAK RD
Surveyor FRE	Ir Curma	Date /3 may 2011 Survey Week Number 7
Survey Partner(s)		
Total Acres:		veyed: Elevation: Max 4/450 ffMin 4/050ff
Start/0:30	Ja-	clear patchy overcast drizzle shower 6-12 730
11:30	1	clear patchy overcast drizzle shower 6-10-4 78°
12:30		clear patchy overcast drizzle shower 6-10,000 800
1:30		clear patchy overcast drizzle shower 8-11 wh 8/9
2:30	4	clear patchy overcast drizzle shower 7-10ml 80°
		clear patchy overcast drizzle shower
Comment		

Stop clear patchy overcast drizzle shower

Habitat onsite (circle as applicable) hillitops ridges rock outcrops, open soils, soil crusts, clay soils, old roads, Plantago, Castilleja, Cordylanthus, Antirrhinum, nectar sources.

Trackers (Annual Value) Annual	S. Bernanderson		A CAMPAGE	Mark St
Nymphalidae (Brush Fouted Butterfiles)		Lepiotes marina (Marine Blue)	+	-
Euphydras editha quina (Quino Chockerspot)		Philates sonorensis (Sonorun Blue)	+	
Euphydras chalcedona (Chalcedon Checkerspot)		Plebejus melissa (Melissa Blue)	-	
Charidryas gabbii (Gabb's Checkerspot)		Everes amyntula (Western Tailed-Blue)	-	-
Phycoides mylitta (Mylitta Crescent)		Brephidium exilis (Western Pygmy-Blue)	-	
Thessalia leanira (Leanira Checkerspot)		Riodinidae (Metalmarks)		-
Nymphalis antiopa (Mourning Cloak)		Apodemia mormo (Mormon Metalmark)	254	1
Basilarchia lorquini (Lorquin's Admirul)		Papilionidae (Swallowtails)		
Липапіа coenia (Common Buckeye)	5	Papilio eurymedon (Pale Swallowtail)	3	4-
Vanessa annabella (West Coast Lady)		Papilio rutulus (Western Tiger Swallowtail)		
Vanessa atalanta (Red Admiral)		Papilio zelicaon (Anise Swallowtail)	1 1	
Vanessa cardul (Painted Lady)	2	Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)		Anthocharis cethura (Desert Orangctip)		
Danxidae		Anthocharis sara (Sara's Orangetip)	2	
Danaus gilippus (Queen)		Pieris rapae (Cabbage White)		-
Dangus plexippus (Monarch)		Pontla protodice (Checkered White)	3	4
Besperidae		Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)	2	Colias harfordii (Harford's Sulphur)	10	+
Hylephila phyleus (Fiery Skipper)		Eurema nicippe (Sleepy Orange)		- 110
Pyrgus albescens (White Checkered-Skipper)		Satyridae (Satyrida)		
Erynnis funeralis (Funereal Duskywing)		Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)		OTHERS:		
Erynnis propertius (Propertius Duskywing)		Tamignostices		
Ochlodes agricola (Rural Skipper)		Tearisia montrola	3	
yenenidae (Hairstreaks)		Hesperis wha	TI	
Atlides halesus (Great Purple Hairstreak)		7 5		
Incisalia augustinus (Western Brown Elfin)				
Callophrys perplexa (Perplexing Hairstreak)				
Strymon melinus (Gray Hairstreak) Glaucopsyche hygdamus (Southern Blue)				
Icarcia acmon (Acmon Blue)	2-			-
Celastrina ladon (Echo Blue)	2			

Surveyor _6	NEU CHATMAN	Segmen	R # TECATE RING CAN	BBRENLAD- Date: 13 may 204
Comments:	SPERTYME NO	THE OF RINES	HUGGES + NOV	4 HOST-
			WHENEUES LEA	
			- 32.5	
Plant Commun	ities and Habitat Inf	ormadon. (22	rea To 28 AVII 2	21)
			THE PERSON NAMED IN COLUMN NAM	
Host Plants Pre	sent: (atm	1's = 28 MPR	2011)	
Nectar Plants P	resent: Lasthe	is , Budlake	t, constatu, Ble	ie diels
Quino Sighti		Date:	GPS Location	n:
		•	Carlotte Committee Committ	
Photographs Tak	en:	300000000000000000000000000000000000000		
	en:	2.		3.
Photographs Tak 1. 4- 7.	en:	5- 8.		3· 6. 9·

Location /	Canzanita Wind Farm	Survey Segment OVS - Fastermost	Segment
Surveyor	Savah Tarm / Date		0
Survey Partne	r(s)		
Total Acres:	Portion Surveyed:	Elevation: Max Min	

Tin	ne (24 hr)	% Cloud	Sky	Wind (range)	Temp (F)
Start	9:30	00	clear patchy overcast drizzle shower	2-5 mph	660
			clear patchy overcast drizzle shower		
			clear patchy overcast drizzle shower		
			clear patchy overcast drizzle shower		
			clear patchy overcast drizzle shower		
			clear patchy overcast drizzle shower		
Stop	1:30	0%	clear patchy overcast drizzle shower	2-5	750

Butterfly Species	Count (Total)	Hill- topping	Butterfly Species	Count (Total)	Hill- topping
Nymphalidae (Brush Footed Butterflies)	Leptotes marina (Marine Blue)		1		
Euphydras editha quino (Quino Checkerspot)			Philotes sonorensis (Sonoran Blue)		
Euphydras chalcedona (Chalcedon Checkerspot)			Plebejus melissa (Melissa Blue)		
Charidryas gabbii (Gabb's Checkerspot)			Everes amyntula (Western Tailed-Blue)		
Phycoides mylitta (Mylitta Crescent)			Brephidium exilis (Western Pygmy-Blue)		
Thessalia leanira (Leanira Checkerspot)			Riodinidae (Metalmarks)		
Nymphalis antiopa (Mourning Cloak)			Apodemia mormo (Mormon Metalmark) ##	10	
Basilarchia lorquini (Lorquin's Admiral)			Papilionidae (Swallowtails)	-10.00	
Junonia coenia (Common Buckeye) [J] //	7		Papilio eurymedon (Pale Swallowtail) 1	2	
Vanessa annabella (West Coast Lady)			Papilio rutulus (Western Tiger Swallowtail)		
Vanessa atalanta (Red Admiral)			Papilio zelicaon (Anise Swallowtail)		
Vanessa cardui (Painted Lady)			Pieridae (Whites and Orangetips)		
Vanessa virginiensis (American Lady)			Anthocharis cethura (Desent Orangetip)		
Danaidae			Anthocharis sara (Sara's Orangetip)		
Danaus gilippus (Queen)			Pieris rapae (Cabbage White)		
Danaus plexippus (Monarch)			Pontia protodice (Checkered White)	3	
Hesperidae			Colias eurytheme (Orange Sulphur)		
Heliopetes ericetorum (Northern White-Skipper)			Colias harfordii (Harford's Sulphur) 444-441 [W	13	
Hylephila phyleus (Fiery Skipper)			Eurema nicippe (Sleepy Orange)	12	
Pyrgus albescens (White Checkered-Skipper)			Satyridae (Satyrids)		
Erynnis funeralis (Funereal Duskywing)			Coenonympha californica (Common California Ringlet)		
Erynnis tristis (Mournful Duskywing)			OTHERS:		
Erynnis propertius (Propertius Duskywing)	3			-	-
Ochlodes agricola (Rural Skipper)					
Lycaenidae (Hairstreaks)					
Atlides halesus (Great Purple Hairstreak)					
Incisalia augustinus (Western Brown Elfin)					-
Callophrys perplexa (Perplexing Hairstreak)					
Strymon melinus (Gray Hairstreak)		100-100			
Glaucopsyche hygdamus (Southern Blue)					
Icarcia acmon (Acmon Blue)	5				
Celastrina ladon (Echo Blue)	-				

Surveyor	Segment #	Date:
Comments:		
The clarity beginning to Prostingan NO host p	in bloom in the observar	area have changed. Chin i's loss have all died out hull become and povant. huy may have died out.
Plant Communities and I	Habitat Information:	
Host Plants Present:	end	
Nectar Plants Present:		
Quino Sighting	Date:	GPS Location:
Photographs Taken:		
1.	2.	3.
4.	5.	6.
7.	8.	9.
10.	11.	12.