

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: A. Borenter Date: 3/8/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 3
 Area Surveyed 00 Acres Surveyed 30 Survey Time: 1hr Acres per Hour: 10ac/hr/pp
 Other Surveyors Present: CHER, E. Harris

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>1230</u>	<u>64°</u>	<u>3-5</u>	<u>0</u>
End	<u>1330</u>	<u>65°</u>	<u>3-5</u>	<u>0</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)
<u>CSS</u>

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	<u>X</u>	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	<u>X</u>
purple owl's clover (<i>Castilleja exserta</i>)	<u>X</u>	goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	<u>X</u>
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	<u>X</u>
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	<u>X</u>
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) Yes <u>No</u>		New Area or Existing Area (circle) New Existing Both	
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	<u>1</u>
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	<u>1</u>	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	<u>1</u>
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>1/11</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>1111</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	<u>11</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>1/11</u>	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	<u>15</u>	Column Subtotal	<u>4</u>
		Total	<u>19</u>

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Brenna Ogg **Date:** 11 March 2016
Site Name: JPD-08 Proctor Valley – Village 14 of Otay Ranch **Site Visit No:** 3
Area Surveyed E **Acres Surveyed** 51 acres **Survey Time:** 2.5 hrs **Acres per Hour:** 5.1
Other Surveyors Present: Brian Lohstroh, Monica Alfaro, John Lovio

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	10:45	63 air, 70 at ground	5-10	100%
End	13:17	67 at ground	8-12, gusts to 15	20%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)
CS Scrub: (<i>B. laciniata</i> , <i>M. laurina</i> , <i>S. munzii</i>); Chaparral: (<i>A. fasciculatum</i> , <i>M. laurina</i> , <i>R. crocea</i> , <i>C. tomentosus</i> , <i>X. bicolor</i> , <i>S. apiana</i> , <i>M. aurantiacus</i> , <i>K. antirrhinoides</i>)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	x	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)	poss. basal rosette obs.	goldenstar (<i>Muilla</i> spp.)	X
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle)	Yes No	New Area or Existing Area (circle)	New Existing Both
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	1	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcedon checkerspot (<i>E. chalcedona chalcedona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	4	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	5
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	3
marine blue (<i>Leptotes marina</i>)		Swallowtails	
Spring azure (<i>Celastrina ladon echo</i>)		pale swallowtail (<i>Papilio eurymedon</i>)	2
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	30	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	1	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	10
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	9	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)		Lupine blue (<i>Plebejus lupines</i>)	
sleepy orange (<i>Eurema nicippe</i>)		<i>Erynnis</i> sp.	1
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			

TOTAL - 45

TOTAL - 21
ERRATA - 666

2016 Quino Checkerspot Butterfly Survey Form

Survey: Diana Saucedo **Date:** 15 March 2016
Site Name: JPD-08 Proctor Valley – Village 14 of Otay Ranch **Site Visit No:** 3
Area Surveyed F **Acres Surveyed** 34 **Survey Time:** 4.20 **Acres per Hour:** 8.3
Other Surveyors Present: None.

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	1100	82	0-1	10%
End	1510	82	1-5, gust 7	0%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)
Sage scrub, <i>E. fasciculatum</i> , <i>A. californica</i> , <i>Viguera</i> ; chamise chaparral; <i>A. fasciculatum</i> , <i>C. tomentosus</i> ; NNG, <i>E. cicutarium</i>

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)		popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	x
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	x
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	x
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) Yes No		New Area or Existing Area (circle) New Existing Both	
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	7	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidon checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limnitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	10	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiarctus ceraunus gys</i>)		American (Virginia) lady (<i>V. virginensis</i>)	3
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	20	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	12	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	1
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)	5	Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	12
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	40	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	7
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	10		
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	104	Column Subtotal	23
		Total	127

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Brenna Ogg **Date:** 11 March 2016
Site Name: JPD-08 Proctor Valley – Village 14 of Otay Ranch **Site Visit No:** _____
 G (SW
Area Surveyed portion) **Acres Surveyed** ~28 acres **Survey Time:** 1 hr **Acres per Hour:** 9.3
Other Surveyors Present: Brian Lohstroh, Monica Alfaro

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	14:15	65 air, 72 at ground	3-5	40%
End	15:15	85 air, 70 at ground	5-10	100%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)
Sage scrub (<i>E. fasciculatum</i> , <i>A. californica</i> , <i>M. laurina</i>); chaparral (<i>A. fasciculatum</i> , <i>M. laurina</i> , <i>R. crocea</i>); NNG (<i>E. cicutarium</i> , <i>B. madritensis</i>); NG (<i>S. pulchra</i>)

Host Plants	Obs.	Nectar Plants	Obs.			
dwarf plantain (<i>Plantago erecta</i>)	x	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X			
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)				
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	X			
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)				
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X			
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X			
		ground pink (<i>Linanthus dianthiflorus</i>)				
Host Plant Mapping Updated (<i>circle</i>)	Yes	No	New Area or Existing Area (<i>circle</i>)	New	Existing	Both
Species updated (list)						

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		Painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	1
marine blue (<i>Leptotes marina</i>)		Swallowtails	
Spring azure (<i>Celastrina ladon echo</i>)		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)		anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	2
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)		fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	3
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	1	Lupine blue (<i>Plebejus lupines</i>)	
sleepy orange (<i>Eurema nicippe</i>)		<i>Erynnis</i> sp.	
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	1	Column Subtotal	6
		Total	7

Surveyor: C. T. STICKSON Date: 03/12/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: PG
 Acres Surveyed: ~10 Survey Time: 1.5 Acres per Hour: 6.6
 Other Surveyors Present: OGG/SAUCEDO

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>1130</u>	<u>70.6 grnd / 63 air</u>	<u>0-8</u>	<u>95%</u>
End	<u>1300</u>	<u>68 grnd / 62 air</u>	<u>5</u>	<u>100%</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

NP6/CSS

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	☒	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	☒
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	☒
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	☒
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) Yes ☐ No ☒		New Area or Existing Area (circle) New ☐ Existing ☒ Both ☐	
Species updated (list)			

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

2016 Quino Checkerspot Butterfly Survey Form

Survey: Diana Saucedo, Brenna Ogg, Crysta Dickson **Date:** 12 March 2016
Site Name: JPD-08 Proctor Valley – Village 14 of Otay Ranch **Site Visit No:** _____
G (NE
Area Surveyed portion) **Acres Surveyed** ~29 acres **Survey Time:** 1.5 hours **Acres per Hour:** 6.4
Other Surveyors Present: _____

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	11:30	63 air, 70 at ground	0-8	95%
End	13:00	62 air, 68 at ground	0-5	98%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)
Sage scrub (<i>E. fasciculatum</i> , <i>A. californica</i> , <i>B. laciniata</i> , <i>M. laurina</i>); chamise chaparral (<i>A. fasciculatum</i> , <i>C. tomentosus</i> , <i>R. crocea</i>); NNG (<i>E. cicutarium</i> , <i>B. madritensis</i>)

Host Plants	Obs.	Nectar Plants	Obs.			
dwarf plantain (<i>Plantago erecta</i>)		popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	x			
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)				
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	x			
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)				
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	x			
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	x			
		ground pink (<i>Linanthus dianthiflorus</i>)				
Host Plant Mapping Updated (<i>circle</i>)	Yes	No	New Area or Existing Area (<i>circle</i>)	New	Existing	Both
Species updated (list)						

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

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Amy Nelson, Chez Brungaber Date: 3/9/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 3
 Area Surveyed H.I Acres Surveyed 97 Survey Time: 9:55 Acres per Hour: 9.8
 Other Surveyors Present: _____

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>0845</u>	<u>64</u>	<u>0</u>	<u>0 %</u>
End	<u>1505</u>	<u>74</u>	<u>0-2</u>	<u>1 %</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

NDG, ES, SMC, CC (Chenise, Malosma, Salvia apiana, Rhamnus crocea)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	✓	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	✓
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	✓
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	✓
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	✓
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (<i>circle</i>)	Yes No	New Area or Existing Area (<i>circle</i>)	New Existing Both
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidon checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	<u>7</u>
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiaris ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	<u>8</u>
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue	<u>2</u>	pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>10</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>1</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	<u>1</u>
checkered (common) white (<i>Pontia protodice</i>)	<u>1</u>	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white	<u>6</u>	funereal duskywing (<i>Erynnis funeralis</i>)	<u>5</u>
Metalmarks		mourful duskywing (<i>Erynnis tristis</i>)	<u>1</u>
Behr's metalmark (<i>Apodemis mormo virgulti</i>)	<u>29</u>	fiery skipper (<i>Hylephila phyleus</i>)	<u>1</u>
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	<u>2</u>	<u>brown skipper</u>	<u>1</u>
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	<u>6</u>		
Column Subtotal	<u>57</u>	Column Subtotal	<u>24</u>
		Total	<u>81</u>

3/9/16 JPD08 ArcastH, I Amy M

flowering
Erb bot/le
Son o le
Sisymbrium
Sil gal
Bra nig

Mui cle
Eri fas
Aca gla
Dic cap
Cryptantha
Mir lae
Bah lae
Azarigon
Gut sis
Cal mac
Ora ca
Placere
Eri cal
Pseudogynephala
Solam ^{like purple}
Ant ruf
Lathyrus
Allium sp.
Hef arb.
Hel scop
Eri con
Vio ped
Iso men
Lup bic
Cal cil
Sanicula ^{red}
Sid mal

mdh

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: MELANIE DICUS, JOHN DICUS Date: 03-15-2016
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 3
 Area Surveyed J, M Acres Surveyed 9.3 Survey Time: 7 hrs, 50 min Acres per Hour: ~6/100
 Other Surveyors Present: —

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0900	61	2.1	5%
End	1650	74	3	0
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.) CHAMISE CHAPARRAL; RUSSEL/NING: ELIOMIA SPP.,
NEEDLEBUSS (GRISLIN) - SPPA PUCHA, ELIOMIA SPP., BRANUS SPP. HOADELUM SPP.,
DESS: ELIOMIA SPP., ARTERISIA CA, ERFA, MALOSNA LAURINA, BRANUS SPP. BRANUS SPP.

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

Host Plant Mapping Updated (circle) Yes No New Existing Both

Species updated (list) PLANTAGO ERECTA, CASTILLEJA DENSIFLORA, C. DENSIFLORA JUST SP. 2016

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	2
chalcedon checkerspot (<i>E. chalcedona chalcedona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	1
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)	2	west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)	1	red admiral (<i>V. atalanta rubria</i>)	1
southern blue (<i>Glaucopsyche lygdamus australis</i>)	3	painted lady (<i>V. cardui</i>)	6
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	3
Acmon blue (<i>Icaricia acmon acmon</i>)	2	unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	1
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	71	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	14	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	4
checkered (common) white (<i>Pontia protodice</i>)	9	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	22
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	94	fiery skipper (<i>Hylephila phyleus</i>)	2
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	12
Sulphurs		Other <u>ERODEA EUFALA</u>	3
orange sulphur (<i>Colias eurytheme</i>)	33	<u>COLIAS HARFORDII</u>	3
sleepy orange (<i>Eurema nicippe</i>)	1	<u>NYMPHALIS CALIFORNICA</u>	1
cloudless sulfur (<i>Phoebus sennae marcellina</i>)		<u>HELOPES ERICETORUM</u>	2
unidentified sulphur		<u>NYMPHALIS VANILLAE</u>	1
Column Subtotal	230	Column Subtotal	64
		Total	294

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: JOHN DICUS, MELANIE DICUS Date: 03-12-2016
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 3
 Area Surveyed 1 Acres Surveyed ~8-10 Survey Time: 30 min Acres per Hour: 8-10
 Other Surveyors Present: —

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>1025</u>	<u>61</u>	<u>1.5</u>	<u>45%</u>
End	<u>1055</u>	<u>61</u>	<u>1.2</u>	<u>50%</u>
Start	<u>SURVEY CANCELLED DUE TO CLOUD COVER</u>			
End				

Vegetation Communities Surveyed (inc. dominant spp.)

DCSS = ERodium spp, ARTEMISIA CA, ERIDONUM FASCICULUM, MLOSMA LAURINA

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)		popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mulla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) Yes ☒ No ☐		New Area or Existing Area (circle) New ☐ Existing ☐ Both ☐	
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limnitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	/
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	4	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	
Metalmarks	3	mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)		fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	/
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	7	Column Subtotal	2
		Total	9

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: MELANIE DICUS, JOHN DICUS Date: 03-13-2016
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 3
 Area Surveyed K, L Acres Surveyed 100 Survey Time: 6.75 HRS Acres per Hour: 7.4/each bro
 Other Surveyors Present: —

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>0945</u>	<u>60</u>	<u>1.6</u>	<u>30%</u>
End	<u>1630</u>	<u>61</u>	<u>3.8</u>	<u>35%</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)	<u>EUCALYPTUS WOODLAND</u>
DCSS = A. CALIFORNICA, EUCALYPTUS SPP, EROGONIUM FASCICULATUM, M. LUMINA	
WLB = BRONZUS DIANDRUS, HALDUM SPP, PEROPHUM SPP, AENA FARVA	

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	<u>X</u>	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	<u>X</u>
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	<u>X</u>
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	<u>X</u>
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	<u>X</u>
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	<u>X</u>
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	<u>X</u>
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) <u>Yes</u> No		New Area or Existing Area (circle) <u>New</u> Existing Both	
Species updated (list) <u>PLANTAGO ERECTA, M. S. A. 2 STARTED BUT FLOWERS</u>			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidon checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	<u>1</u>
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)	<u>2</u>	west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	<u>2</u>
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	<u>6</u>
Edward's blue (<i>Hemiarctus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	<u>2</u>
Acmon blue (<i>Icaricia acmon acmon</i>)	<u>1</u>	unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>34</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>1</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)	<u>1</u>	common buckeye (<i>Junonia coenia grisea</i>)	<u>3</u>
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	<u>6</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>22</u>	fiery skipper (<i>Hylephila phyleus</i>)	<u>2</u>
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	<u>12</u>
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	<u>10</u>	<u>PAPILIO CRESPHONTES</u>	<u>1</u>
sleepy orange (<i>Eurema nicippe</i>)		<u>COLIAS HARFORDII</u>	<u>4</u>
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	<u>71</u>	Column Subtotal	<u>39</u>
		Total	<u>110</u>

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: GARRETT HUFFMAN Date: 3/10/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Parcel N Site Visit No: 3
 Acres Surveyed: 65 Survey Time: 0.5 Hours Acres per Hour: 7.6
 Other Surveyors Present: NONE

Start	Time (24 hr)	Field Conditions
End	0800	Temperature (°F)
Start	1600	Wind Speed (mph)
End		Cloud Cover
		64
		0-2
		20
		3-6
		40

Vegetation Communities Surveyed (inc. dominant spp.)

CHAMISE CHAPARRAL, COASTAL SAGE SCRUB, NON-NATIVE GRASSLAND

Host Plants

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

Host Plant Mapping Updated (circle) Yes No

Species updated (list) CASTILLEJA sp.

New Area or Existing Area (circle) New Existing Both

Butterfly Species

Checkerspots	No.	Butterfly Species	No.
California patch (<i>Chlosyne californica</i>)		Hairstreaks	
Gabb's checkerspot (<i>C. gabbii</i>)	3	great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		brown elfin (<i>Callophrys augustinus</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Mylitta crescent (<i>Phyciodes mylitta</i>)		Ladies/Admirals	
Blues		California sister (<i>Adelpha bredowii californica</i>)	
western pygmy-blue (<i>Brephidium exila</i>)	1	Lorquin's admiral (<i>Limenitis lorquini</i>)	
western tailed blue (<i>Everes amyntula</i>)		west coast lady (<i>Vanessa annabella</i>)	1
southern blue (<i>Glaucopsyche lygdamus australis</i>)		red admiral (<i>V. atalanta rubria</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		painted lady (<i>V. cardui</i>)	5
Acmon blue (<i>Icaricia acmon acmon</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
marine blue (<i>Leptotes marina</i>)		unidentified lady (<i>Vanessa</i> sp.)	
unidentified blue		Swallowtails	
Whites		pale swallowtail (<i>Papilio eurymedon</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	25	western tiger swallowtail (<i>P. rutulus</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		anise swallowtail (<i>P. zelicaon</i>)	
common California ringlet (<i>Coenonympha californica</i>)	1	Miscellaneous	
cabbage white (<i>Pieris rapae</i>)	1	monarch (<i>Danaus plexippus</i>)	
checkered (common) white (<i>Pontia protodice</i>)	7	common buckeye (<i>Junonia coenia grisea</i>)	3
spring white (<i>P. sisymbrii</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
unidentified white		Skippers	
Metalmarks		funereal duskywing (<i>Erynnis funeralis</i>)	2
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	28	mournful duskywing (<i>Erynnis tristis</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		fiery skipper (<i>Hylephila phyleus</i>)	
Sulphurs		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
orange sulphur (<i>Colias eurytheme</i>)	10	Other	
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			

Column Subtotal

78

Column Subtotal

11

76

TOTAL - 89

2016 Quino Checkerspot Butterfly Survey Form

Surveyor

Alicia Hill

Date:

3/14/14

Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch

(Polygon D)

Site Visit No:

#3

Acres Surveyed

63

Survey Time:

3.15 (x2 people)

Acres per Hour:

10 acres/hr

Other Surveyors Present:

Travis Cooper

Field Conditions

	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	14:15	72	2-5	95%
End	17:29	72	1-3	65%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

chamize chaparral (ADE TAS, ERI TAS),

native grassland (Nasella sp., Avena sp.)

DIC CAP
Plagio.
ACM STR
ACM GLA
ANT NUT
SOL PAR
PHA CC

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>) dorsiflora	X	goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	X
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	X
Host Plant Mapping Updated (circle) (Yes) No		New Area or Existing Area (circle) (New) Existing Both	
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcodon checkerspot (<i>E. chalcodona chalcodona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	1
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	13	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	1	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	19	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	2
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	1		
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	34	Column Subtotal	3
		Total	37

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: GARRETT HUFFMAN Date: 3/13/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Parcel 1023 Site Visit No: 3
 Acres Surveyed: 58.64 Survey Time: 8 HOURS Acres per Hour: 7.33
 Other Surveyors Present: NONE

Field Conditions			
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)
Start	0830	60	0-2
End	1630	70	3-7
Start			
End			

Vegetation Communities Surveyed (inc. dominant spp.)
CHAMISE CHAPARRAL, COASTAL SCRUB, NON NATIVE GRASSLAND

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	X	goldfields (<i>Lasthenia</i> spp.)	X
snaptail (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mullea</i> spp.)	X
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	X
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	X
Host Plant Mapping Updated (circle) <u>Yes</u> No		New Area or Existing Area (circle) <u>New</u> Existing Both	
Species updated (list) <u>CASTILLEJA SP.</u>			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	1
western tailed blue (<i>Evers amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	2	painted lady (<i>V. cardui</i>)	1
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)	1	unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	1	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	2
Sara orangetip (<i>Anthocharis sara sara</i>)	17	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	2	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	4	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	3
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	2	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	2
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	29	Column Subtotal	9

TOTAL 38

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: GARRAT HUFFMAN Date: 3/15/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch PARCEL Q1P Site Visit No: 3
 Acres Surveyed: 822.4 Survey Time: 8.5 HOURS Acres per Hour: 97.23
 Other Surveyors Present: NONE

Field Conditions			
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)
Start	0830	60	0-3
End	1700	74	2-7
Start			
End			

Vegetation Communities Surveyed (inc. dominant spp.)

CHAMISE CHAPARRAL, COASTAL SAGE SCRUB, NON-NATIVE GRASSLAND

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	X	goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	X
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	X
Host Plant Mapping Updated (circle) (Yes) No		New Area or Existing Area (circle) (New) Existing Both	
Species updated (list) CASTILLEJA SP.			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	6	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	1
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limnitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	1
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	1
southern blue (<i>Glaucopteryx lygdamus australis</i>)	4	painted lady (<i>V. cardui</i>)	2
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	1
Acmon blue (<i>Icaricia acmon acmon</i>)	1	unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	1
Sara orangetip (<i>Anthocharis sara sara</i>)	47	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	5	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	5	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	5
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	8	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	2
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	5		
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal		81	
			Column Subtotal
			14
			TOTAL
			95

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: GARRET HUFFMANDate: 3/14/16Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch PARCEL RSite Visit No: 3Acres Surveyed 30 Survey Time: 3 HOURSAcres per Hour: 10Other Surveyors Present: NONE

Field Conditions			
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)
Start	0830	61	0-3
End	1130	67	4-8
Start			(SPRINKLING)
End			

Vegetation Communities Surveyed (inc. dominant spp.)

CHAMISE CHAPARRAL, COASTAL SAGE SCRUB, NON-NATIVE GRASSLAND

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	X	goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle)	Yes	New Area or Existing Area (circle)	New
Species updated (list)	CASTILLEJA SP.		

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

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: JARRET HUFFMAN Date: 3/12/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Parcel EE - R Site Visit No: 3
 Acres Surveyed: 50 Survey Time: 4:35 Acres per Hour: 10
 Other Surveyors Present: NONE

Field Conditions			
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)
Start	0900	61	0-3
End	1100	62	4-8
Start	1400	63	2-6
End	1700 1700	62	3-6
Cloud Cover			
50%			
65%			
20%			
10%			

Vegetation Communities Surveyed (inc. dominant spp.)

CHAMISE CHAPARRAL; COASTAL SAGE SCRUB, NON-NATIVE
GRASSLAND

GRASSLAND			
Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	X	goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	X
Host Plant Mapping Updated (circle) Yes No		New Area or Existing Area (circle) New Existing Both	
Species updated (list) CASTILLEJA SP.			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcedon checkerspot (<i>E. chalcedona chalcedona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	1
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	21	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	3	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	27	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	51	Column Subtotal	1

TOTAL 52

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Erik Laloste

Date: 3/9/16

Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch

Site Visit No: 3

Area Surveyed S, T, U Acres Surveyed 152

Survey Time: 16.5 hrs.

Acres per Hour: 9.4

Other Surveyors Present: Erica Harris, Gretchen Cummins, BENR.

Field Conditions

	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>9:15</u>	<u>63.5</u>	<u>0-1</u>	<u>0</u>
End	<u>2:45</u>	<u>75</u>	<u>5-7</u>	<u>0</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

Host Plants			Obs.	Nectar Plants			Obs.	
dwarf plantain (<i>Plantago erecta</i>)			Y	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)			Y	
purple owl's clover (<i>Castilleja exserta</i>)			Y	goldfields (<i>Lasthenia</i> spp.)			Y	
snapdragon (<i>Antirrhinum coulterianum</i>)			N	goldenstar (<i>Muilla</i> spp.)			N	
birds-beak (<i>Cordylanthus rigidus</i>)			N	fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)			N	
woolly plantain (<i>Plantago patagonica</i>)			N	onion (<i>Allium</i> spp.)			Y	
Chinese houses (<i>Collinsia</i> spp.)			N	buckwheat (<i>Eriogonum fasciculatum</i>)			Y	
				ground pink (<i>Linanthus dianthiflorus</i>)			Y	
Host Plant Mapping Updated (<i>circle</i>)		Yes	No	New Area or Existing Area (<i>circle</i>)		New	Existing	Both
Species updated (list)								

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	<u>14</u>	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)	<u>17</u>	bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	<u>4</u>	painted lady (<i>V. cardui</i>)	<u>5</u>
Edward's blue (<i>Hemiarctus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	<u>3</u>
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	<u>4</u>
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue	<u>2</u>	pale swallowtail (<i>Papilio eurymedon</i>)	<u>1</u>
Whites		western tiger swallowtail (<i>P. rutulus</i>)	<u>1</u>
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>43</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)	<u>2</u>	Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>26</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	<u>1</u>
checkered (common) white (<i>Pontia protodice</i>)	<u>2</u>	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)	<u>3</u>	Skippers	
unidentified white	<u>17</u>	funereal duskywing (<i>Erynnis funeralis</i>)	<u>45</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>41</u>	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	<u>15</u>
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	<u>8</u>	<i>Erynnis</i> w/o white	<u>1</u>
sleepy orange (<i>Eurema nicippe</i>)		<i>Pyrgus albescens</i>	<u>1</u>
cloudless sulfur (<i>Phoebus sennae marcellina</i>)		<i>Erynnis</i> w/ white	
unidentified sulphur	<u>8</u>		
Column Subtotal	<u>173</u>	Column Subtotal	<u>37</u>
		Total	<u>210</u>

JPD-08 ENCA H
 QUB F3 (S/T/U) 3/9/10
 START: 0915, 63°F, 65°F, 0%
 STOP: 1445, 75°F, 6-7, 5%
 BIDS: GINETUNAN C, ENIK L, BEN R(S)

CAKI	CAN	SPTU	ANTU
NWU	GATH	NOMO	TRES
ANTR	BUSH	WOSP	RTTA
CALT	NOFL	RCSP	ROWR
WREN	WEST	BOSP	CAOM
NOTA	WISW	YRWA	BEUR

side-blotched cotton-tail

Tiger I	SO. Blue II
Buckeye I	Gabbs' III
check skip III	American I
Sulphur III	Lady III
Spring III	CA ringlet III
Behr's III	White Sp. III
Sara's III	

Flower: paere, cryptantha, cas donae
 solanum, diccap, mimaur, erodium,
 acm gl, sel gal, entus, ade-lussal mun
 ban lac, escaal, treac re, m. r laer,
 cal mac, loath vest, lasihenid, india
 en con, alium, Pracic

Rite in the Rain

Pieris protodice → checked
JPD-08 Pieris signator → outlined

03/09/16

Quino Survey #3

Arens S, I, U

Ben F., Erica H., Erik L., Gretchen C.

Start: 0615

End: 1445

Temp: 63.5°F

Temp: 75°F

wind: 1-4 mph

wind: 5-7 mph

sky: Clear

sky: 5%

Wildlife

Swain orange sp. #11

Pinglet: 1

White sp: 11

Orange sulphur: 11

Behrs metal mark: #11

checkered skipper: 1

Pieris protodice: 1

Funeral dory wren

Grabb's checkerspot: 11

RFA, SPT, CAKE, CAGN, CAWail, MWD

Flowering Plants WENG, LORA, WREN

Ericas, Bluebirds, Aloula, & Mimulus

Compositae, Solanum, Solanum sp.

Eucaly, Erodium, Castilleja, Hirschfeldia

Allium sp. Gilgal, Calmac, Balthas

Groundplant, Malfus, Helios, Lactuca

Annona

2016 Quino Checkerspot Butterfly Survey Form

Surveyor:

Chaz Brungaber

Date: 3/13/16

Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch

Site Visit No: 3

Area Surveyed: ^{partial} AA, CC ^{partial} Acres Surveyed 43

Survey Time: 5 hrs 0 min Acres per Hour: 8.6

Other Surveyors Present: Griffin Brungaber (supervised)

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	1130	63.2	0-2	30%
End	1630	62.8	2-5	35%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

Chamise chap (chamise, Maluma), native bunch grassland (stipa sp., blue dicks, art cal, buckwheat, Erichium sp.)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	FLWR	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	FLWR
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	FLWR
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mulla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	FLWR
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	FLWR
		ground pink (<i>Linanthus dianthiflorus</i>)	FLWR
Host Plant Mapping Updated (circle)	(Yes)	No	
Species updated (list)	<i>P. erecta</i>	New Area or Existing Area (circle)	New Existing Both

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	1	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	1
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	1
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	1	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	1
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	1
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue	11	pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	11	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)	11	Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	11	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	1
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white	11	funereal duskywing (<i>Erynnis funeralis</i>)	11
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	1
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	11	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	11
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	11		
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	11		
Column Subtotal	53	Column Subtotal	23
		Total	76

2016 Quino Checkerspot Butterfly Survey Form

Surveyor

Alicia Hill

Date:

3/13/16

Site Name: JPD-08 Proctor Valley - Village 14 of Olay Ranch

Site Visit No:

3

Acres Surveyed

44

Survey Time:

2.42 (x2 re-survey)

Acres per Hour:

9.1 / hr

Other Surveyors Present:

Trans Cooper

Field Conditions

	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	1420	71	1-4	25
End	1645	70	2-6	60
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

chamise (ADZ FAS, 921 FAS), Diegan CSS

(ART CAL, 921 FAS, ACM 6LA), native grassland

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	X	goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	X
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	X
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	X
Host Plant Mapping Updated (circle) Yes	No	New Area or Existing Area (circle) New	Existing
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Evers amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)	2	unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	13	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	2
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	9	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	4
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)		CA Ringlet	2
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	24	Column Subtotal	8
		Total	32

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: MELISSA BUSBY Date: 3/15/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: _____
 Area Surveyed W, X Acres Surveyed ± 60 Survey Time: 6.5 Acres per Hour: ± 9.25
 Other Surveyors Present: MELANIE ROCKS

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0930	63	0-2	0
End	1600	78	4-7	0
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	✓	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	✓
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	✓
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	✓
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	✓
		ground pink (<i>Linanthus dianthiflorus</i>)	✓
Host Plant Mapping Updated (circle) Yes <u>(No)</u>		New Area or Existing Area (circle) New <u>(Existing)</u>	Both
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidion checkerspot (<i>E. chalcidion chalcidion</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	12
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	3
marine blue (<i>Leptotes marina</i>)	7	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	11	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	3	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)	2	Skippers	
unidentified white	3	funereal duskywing (<i>Erynnis funeralis</i>)	8
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemis mormo virgulti</i>)	24	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	8
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	3		
Column Subtotal	53	Column Subtotal	31
		Total	84

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Melanie Rocks Date: 3/15/2016
 Site Name: JPD-08 Proctor Valley - Village 14 of Olay Ranch Site Visit No: #3
 Area Surveyed W + X Acres Surveyed 116 Survey Time: 13 Acres per Hour: 8.92
 Other Surveyors Present: M. Busby

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0930	63	0-2	Clear 10-12)
End	1600	78	4-7	Clear 0-12)
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

DCSS (Malosma laurina, Bahiopsis laciniosa, etc)
Chamise Chaparral (Adenostoma fasc.)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	✓	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	✓
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	✓
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	✓
		ground pink (<i>Linanthus dianthiflorus</i>)	✓
Host Plant Mapping Updated (circle)	Yes <u>No</u>	New Area or Existing Area (circle)	New Existing Both
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiarctus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	1
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	11
marine blue (<i>Leptotes marina</i>)	1	Swallowtails	3
unidentified blue	1	pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	19	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	2	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)	1	Skippers	
unidentified white	15	funereal duskywing (<i>Erynnis funeralis</i>)	11
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	18	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	4		
Column Subtotal	61	Column Subtotal	7
		Total	68

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: A Borchert Date: 3/9/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 3
 Area Surveyed 7 Acres Surveyed 60 Survey Time: 8hrs Acres per Hour: 7.5ac/hr
 Other Surveyors Present: _____

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0900	63°	1-3 mph	0
End	1700	68°	2-8 mph	40
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

CSS (Eriogonum, Vig. lac, lot SCo)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	+	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	+	goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) Yes <u>No</u>		New Area or Existing Area (circle) New <u>Existing</u>	Both
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	I
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	I
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginiensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	I	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)		anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)		fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	86	Column Subtotal	35
		Total	121

Area - A, B, E

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Bretchen Cummings, Enklacoste, Erica Harris Date: 3/16/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 4
 Acres Surveyed: 166 Survey Time: 5.75 Acres per Hour: 9.62
 Other Surveyors Present: BZ, BZ

Field Conditions			
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)
Start	<u>0815</u>	<u>64</u>	<u>0-1</u>
End	<u>1400</u>	<u>87</u>	<u>4-7</u>
Start			
End			

Vegetation Communities Surveyed (inc. dominant spp.)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	<u>Y</u>	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	<u>Y</u>
purple owl's clover (<i>Castilleja exserta</i>)	<u>Y</u>	goldfields (<i>Lasthenia</i> spp.)	<u>Y</u>
snapdragon (<i>Antirrhinum coulterianum</i>)	<u>N</u>	goldenstar (<i>Mullea</i> spp.)	<u>2</u>
birds-beak (<i>Cordylanthus rigidus</i>)	<u>N</u>	fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	<u>2</u>
woolly plantain (<i>Plantago patagonica</i>)	<u>N</u>	onion (<i>Allium</i> spp.)	<u>2</u>
Chinese houses (<i>Collinsia</i> spp.)	<u>N</u>	buckwheat (<i>Eriogonum fasciculatum</i>)	<u>2</u>
		ground pink (<i>Linanthus dianthiflorus</i>)	<u>2</u>
Host Plant Mapping Updated (circle)	Yes	No	New Area or Existing Area (circle)
Species updated (list)			New Existing Both

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	<u>24</u>	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	<u>2</u>
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	<u>34</u>
Leanira checkerspot (<i>Thestalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	<u>2</u>
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	<u>16</u>	painted lady (<i>V. cardui</i>)	<u>1</u>
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	<u>1</u>
Acmon blue (<i>Icaricia acmon acmon</i>)	<u>2</u>	unidentified lady (<i>Vanessa</i> sp.)	<u>4</u>
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue	<u>1</u>	pale swallowtail (<i>Papilio eurymedon</i>)	<u>3</u>
Whites		western tiger swallowtail (<i>P. rutulus</i>)	<u>1</u>
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>26</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)	<u>1</u>	Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>7</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	<u>1</u>	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)	<u>1</u>	Skippers	
unidentified white	<u>2</u>	funereal duskywing (<i>Erynnis funeralis</i>)	<u>16</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>48</u>	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calophelis wrighti</i>)	<u>12</u>	white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	<u>3</u>	<i>Erynnis pacuvius</i>	<u>2</u>
sleepy orange (<i>Eurema nicippe</i>)		<i>Striated Queen</i>	<u>1</u>
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	<u>3</u>		
Column Subtotal	<u>125</u>	Column Subtotal	<u>37</u>
		TOTAL	<u>162</u>

JPD08 Encañi
QCB#4(A/B/E) 3/10/10
SIGAT: 0815, 04°F, 0 - 1, 0%
STUP: 1400, 87°F, 2-5, 0%
BOS. Enk L, Gretchen C.
BUSH TUNU

BENK WOME HOLA NOLA
SPUD WOSP ANAR LENO
PTIA ANIV CORA RESP
WREN NDFL MODO ROUR
SAPH NORD CALT HOFL
WEST CATH CAQU LASP
BEGIN LABO AMKE YKUA
Pale 1

Gabb 1	Lady III
Spring 1	Gray Hair 1
West Coast 1	Funeral III
Sara's III III III	CA Niglet III
Behr's III III	White 1
Sulphur III	Queen 1

Flower: erodium, eritas, xer gla
Buh lac, cal mac, sel gil, mim aur, serous
wild pea, guitenza, dic ap, cryptanthra
esc cal, mir laev, Hir ire, pseudographalum
Hed cre, Pra ac, allium, sobinum, vioped
is bel, skullcap, cut tub, sal mup
strom, c. tole tas, cas aff, mir nut, animesya
nimbrum, cal SDI prim clew, cal cil, sonicle

Surveyor

2016 Quino Checkerspot Butterfly Survey Form

: Chez BurggraberDate: 3/2/16Site Name: JPD-08 Proctor Valley - Village 14 of Otay RanchSite Visit No: 4Area Surveyed AA, ce Acres Surveyed 93Survey Time: 7hr 45minAcres per Hour: 13hr (6.4hr/hr)Other Surveyors Present: Nicole Kimball

		Field Conditions		
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>0930</u>			
End	<u>1715</u>	<u>60</u>	<u>0-1</u>	<u>40% (clearing fast)</u>
Start		<u>69</u>	<u>5-10</u>	<u>45% (hazy)</u>
End				

Vegetation Communities Surveyed (inc. dominant spp.)

CSS, native bunch grassland, chamise chap
Art cal, buckwheat, stipa, Malama, Salvia apiana, chamise, codium

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	flw	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	flw
purple owl's clover (<i>Castilleja exserta</i>)	flw	goldfields (<i>Lasthenia</i> spp.)	flw
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mulle</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	flw
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	flw
Chinese houses (<i>Collinsia</i> spp.)	flw	buckwheat (<i>Eriogonum fasciculatum</i>)	flw
		ground pink (<i>Linanthus dianthiflorus</i>)	flw
Host Plant Mapping Updated (circle)		New Area or Existing Area (circle)	
(Yes)	No	New	Existing
Species updated (list)		Both	
Castilleja, collinsia → 100's is a polygon in a circle 20x30', 2.5m/ha			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Aidesia halesus corporalis</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	<u>1</u>	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	<u>14</u>
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiarctus cearanus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	<u>1</u>
marine blue (<i>Leptotes marina</i>)	<u>1/11</u>	Swallowtails	
unidentified blue	<u>1</u>	pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>1/11</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>1/11</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	<u>11</u>
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white	<u>11</u>	funereal duskywing (<i>Erynnis funeralis</i>)	<u>1/11</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>1/11</u>	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescent</i>)	<u>1/11</u>
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)		<u>Hawford's sulphur</u>	<u>1/11</u>
sleepy orange (<i>Eurema nicippe</i>)		<u>Unknown skipper</u>	<u>1</u>
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	<u>111</u>		
Column Subtotal	<u>261</u>	Column Subtotal	<u>50</u>
		Total	<u>311</u>

+50+50

+50

+50

2016 Quino Checkerspot Butterfly Survey Form

Surveyor

Chez Brungaber

Date:

3/18/16

Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch

Site Visit No:

4

Area Surveyed

BB

Acres Surveyed

46

Survey Time:

5.5 hrs

Acres per Hour:

8.36

Other Surveyors Present:

Field Conditions				Cloud Cover
Time (24 hr)	Temperature (°F)	Wind Speed (mph)		
Start	1115	76.1	0-4	0%
End	1645	74.4	3-7	0%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

NNG, Chamise chap, CSS

Avena sp., Bromus sp., Erodium, Chamise, Malva, Eriogonum, Art. cal.

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	flwr	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	flwr
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	flwr
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mullea</i> spp.)	flwr
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	flwr
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	flwr
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	flwr
		ground pink (<i>Linanthus dianthiflorus</i>)	
		New Area or Existing Area (circle)	New Existing Both
Host Plant Mapping Updated (circle)	Yes	No	
Species updated (list)	P. erecta		

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidion checkerspot (<i>E. chalcidion chalcidion</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginiensis</i>)	II
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	II
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	II	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	II	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	III
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white	III	funereal duskywing (<i>Erynnis funeralis</i>)	III
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	III	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	I
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	I		
Column Subtotal	30	Column Subtotal	15
		Total	45

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Gretchen Cummings + Erica Harris Date: 3/18/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed C+D Acres Surveyed 75 Survey Time: 0920 - 1305 Acres per Hour: 10
 Other Surveyors Present: none (3 hrs 45 min)

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0920	63°F	0-1 mph	10%
End	1305	79°F	1-3 mph	clear
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)
<u>Chaparral (Chamise)</u>

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	X	goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) <u>Yes</u> No		New Area or Existing Area (circle) New Existing <u>Both</u>	
Species updated (list) <u>Castilleja exserta</u>			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbi</i>)	4	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	1
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	1
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	7	painted lady (<i>V. cardui</i>)	1
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	2
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	1
marine blue (<i>Leptotes marina</i>)	2	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	1
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	15	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	9	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)	3	Skippers	
unidentified white	1	funereal duskywing (<i>Erynnis funeralis</i>)	13
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemus mormo virgulti</i>)	27	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	4
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	1		
Column Subtotal	129	Column Subtotal	24
(39 species)		Total	153
		(17 species)	

JPDD8
QCB#4(C/D)
START: 920, 68°F, 0-1.10%
STOP: 1305, 74°F, 1-3.0%

Erica H

GIRSD HOLA WENTE NORA
CATH SPTO RESP WREN
LEGO BCSP CALT YRWA
SAPH AUWO COHU NOFL
BUSH CAW MADO WEST
RGIN LASP ANAR CORA
LAGO SELASPHONUS ROMR BEMR

Spring III Sulphur I
Funeral III III Virginia I
Habb's III marine II
Checkered skip II SD. Blue III I
CAnirget III III Behr's III III
Lady sp. I Sara's III III III III III III
Penpewitz I

Flower: calmac, erodium, ban kagong,
sal mein, onypantha/prasogenus, adofus
mal tus, Hirinc, Geymbrium, yuc whip,
De cap, sokunum, miralev, phaeig, ori can
Hedone, wild peapesc, calaillium, guittenza,
no pedianaan, primoleviset gal
sis bel, pia are, cas den tace, cal al

Write in the Rain

Surveyor

2016 Quino Checkerspot Butterfly Survey Form

Site Name: Chez BrngraberDate: 3/17/16Site Name: JPD-08 Proctor Valley - Village 14 of Otay RanchSite Visit No: 4Area Surveyed DDAcres Surveyed 30Survey Time: 3hr 45minAcres per Hour: 8Other Surveyors Present: /

Field Conditions

	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>1300</u>	<u>78.2</u>	<u>2-5</u>	<u>0%</u>
End	<u>1645</u>	<u>73.4</u>	<u>0-3</u>	<u>0%</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

CSS, native grassland, chamise chapchamise, Quercus ber., Malva, Erigeron, Art. cal., popcorn flurs, stipa sp.

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	<u>flwr</u>	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	<u>flwr</u>
purple owl's clover (<i>Castilleja exserta</i>)	<u>flwr</u>	goldfields (<i>Lasthenia</i> spp.)	<u>flwr</u>
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mulla</i> spp.)	<u>flwr</u>
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	<u>flwr</u>
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	<u>flwr</u>
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	<u>flwr</u>
		ground pink (<i>Linanthus dianthiflorus</i>)	<u>flwr</u>
Host Plant Mapping Updated (circle)	<u>Yes</u>	New Area or Existing Area (circle)	New Existing Both
Species updated (list)	<u>Castilleja</u>		

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atides halesus corporalis</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	<u>VI</u>	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcedon checkerspot (<i>E. chalcedona chalcedona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Myliatta crescent (<i>Phyciodes myliatta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	<u>VI</u>	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiarctus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	<u>VI</u>
marine blue (<i>Leptotes marina</i>)	<u>I</u>	Swallowtails	
unidentified blue	<u>I</u>	pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>VI</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>VI</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white	<u>I</u>	funereal duskywing (<i>Erynnis funeralis</i>)	<u>VI</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgultorum</i>)	<u>VI</u>	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	<u>VI</u>
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	<u>I</u>		
Column Subtotal	<u>122</u>	Column Subtotal	<u>14</u>
		Total	<u>136</u>

Surveyor: GARRET HUFFMAN 2016 Quino Checkerspot Butterfly Survey Form
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Date: 3/16/16
 Acres Surveyed: 15 Survey Time: 3 HOURS Site Visit No: 4
 Other Surveyors Present: NONE Acres per Hour: 5

	Time (24 hr)	Field Conditions		
		Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	1200	80	4-8	0
End	1500	78	4-8	0
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

COASTAL SAGE SCRUB, MN - NATIVE GRASSLAND

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)		popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	X
Host Plant Mapping Updated (circle)	Yes ☐ No ☒	New Area or Existing Area (circle)	New ☐ Existing ☐ Both ☐
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)	1	great purple hairstreak (<i>Atides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	1	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	2
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Myliatta crescent (<i>Phyciodes myliatta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	2	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiarctus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	1	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	2
Whites		western tiger swallowtail (<i>P. rutulus</i>)	5
Sara orangetip (<i>Anthocharis sara sara</i>)	25	anise swallowtail (<i>P. zelicaon</i>)	2
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	20	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	4	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	5
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	8	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	1		
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	77	Column Subtotal	16

63

TOTAL 83 79

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Brian Parker, Crysta Dickson Date: 3/20/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed F Acres Surveyed 34 Survey Time: 5 Acres per Hour: 6.8
 Other Surveyors Present: Andy Smisek (supervised)

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>0945</u>	<u>62</u>	<u>1-3</u>	<u>5%</u>
End	<u>1215</u>	<u>75</u>	<u>1-3</u>	<u>5%</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)		popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	<u>X</u>
purple owl's clover (<i>Castilleja exserta</i>)	<u>X</u>	goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	<u>X</u>
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	<u>X</u>
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle)	Yes No	New Area or Existing Area (circle)	New Existing Both
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	<u>4</u>	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidon checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Myliatta crescent (<i>Phyciodes myliatta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	<u>5</u>	painted lady (<i>V. cardui</i>)	<u>1</u>
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	<u>1</u>
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	<u>3</u>	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>56</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>8</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)	<u>1</u>	common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	<u>6</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>8</u>	fiery skipper (<i>Hylephila phyleus</i>)	<u>1</u>
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	<u>1</u>
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	<u>1</u>		
Column Subtotal	<u>86</u>	Column Subtotal	<u>10</u>
		Total	<u>96</u>

2016 Quino Checkerspot Butterfly Survey Form

Surveyor

Chez Brungaber

Date:

3/23/16

Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch

Site Visit No:

4

Area Surveyed FF

Acres Surveyed

58

Survey Time: 3hr 15min

Acres per Hour: 17.3 (8.9 ac/hr/p)

Other Surveyors Present:

Nicole Kimball

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	1400	81	3-5	0%
End	1715	81	4-7	0%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)		popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	flwr
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mulla</i> spp.)	flwr
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	flwr
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle)	Yes	No	New Area or Existing Area (circle)
Species updated (list)			New Existing Both

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)		anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white	1	funereal duskywing (<i>Erynnis funeralis</i>)	
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)		fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)		Fiery skipper	1
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	14	Column Subtotal	12
		Total	26

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Brian Parker, Crysta Dickson Date: 3/20/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed 9 Acres Surveyed 57 Survey Time: 6.1 Acres per Hour: 9.3
 Other Surveyors Present: Andy Smisek (supervised)

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>1215</u>	<u>75</u>	<u>1-3</u>	<u>59%</u>
End	<u>1520</u>	<u>75</u>	<u>4-7</u>	<u>54%</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	<u>X</u>	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	<u>X</u>
purple owl's clover (<i>Castilleja exserta</i>)	<u>X</u>	goldfields (<i>Lasthenia</i> spp.)	<u>X</u>
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	<u>X</u>
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	<u>X</u>
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	<u>X</u>
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) <u>Yes</u> No		New Area or Existing Area (circle) <u>New</u> Existing Both	
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)	<u>3</u>	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidon checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	<u>1</u>	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	<u>1</u>	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>38</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>14</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)	<u>2</u>	common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	<u>7</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>20</u>	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	<u>8</u>
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	<u>3</u>		
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	<u>1</u>		
Column Subtotal	<u>83</u>	Column Subtotal	<u>15</u>
		Total	<u>98</u>

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Amy Mattson Date: 3.16.16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed H₁ Acres Surveyed 55 Survey Time: 5.5 Acres per Hour: 10
 Other Surveyors Present: Ben Rosenbaum (supervised individual)

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	9:25	76	0-1	0%
End	14:55	80	2-8	0%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

CSS, SMC, NUG

Host Plants	Obs.	Nectar Plants	Obs.			
dwarf plantain (<i>Plantago erecta</i>)	✓	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	✓			
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)				
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	✓			
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)				
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	✓			
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	✓			
		ground pink (<i>Linanthus dianthiflorus</i>)				
Host Plant Mapping Updated (circle)	Yes	No	New Area or Existing Area (circle)	New	Existing	Both
Species updated (list)						

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidion checkerspot (<i>E. chalcidion chalcidion</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	1
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	1111 4
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue	1	pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	1111 1111 1111	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	1	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white	111	funereal duskywing (<i>Erynnis funeralis</i>)	111 6
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	1
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	111 111 111 111	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	1	rainy sulphur	1 1
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	111		
Column Subtotal		48	
Column Subtotal			13
			Total 61

3/16/10 JPD-08 QCB 4 Aug 11 AcaH

Ero bot	Mir lac
Hed cre	Diccap
Bra nig	Aem gla
Son de	- Eri fas
Ero cic	Dah lac t
Hyp gla	- Cryptantha sp
Sil gal	Aem sp
Ana arv	Cal mee
Med pol	Esc Cal
Mel ind	Solanum de ppe
Sisymbrium	halym
Spargularia	Guthoeja
	Lup bic
	Sal api
	Oxa cal
	Phacelia ^{disoreic}
	Sisbel
	Vio ped
	- Alpin sp.
	Mal fas
	- Muilla
	Mim aur
	<u>Pla ere</u>
	Sal mun
	Ant nut
	Cas aff
	Eri con

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Amy Mattson Date: 3.17.16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed I Acres Surveyed 42 Survey Time: 4:20 (4.3) Acres per Hour: 9.8
 Other Surveyors Present: —

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>1025</u>	<u>79°F</u>	<u>0-1 mph</u>	<u>0%</u>
End	<u>1445</u>	<u>74°F</u>	<u>0-4 mph</u>	<u>0%</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

NNG, CSS

Host Plants		Obs.	Nectar Plants		Obs.
dwarf plantain (<i>Plantago erecta</i>)		✓	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)		✓
purple owl's clover (<i>Castilleja exserta</i>)			goldfields (<i>Lasthenia</i> spp.)		
snapdragon (<i>Antirrhinum coulterianum</i>)			goldenstar (<i>Muilla</i> spp.)		✓
birds-beak (<i>Cordylanthus rigidus</i>)			fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)		✓
woolly plantain (<i>Plantago patagonica</i>)			onion (<i>Allium</i> spp.)		✓
Chinese houses (<i>Collinsia</i> spp.)			buckwheat (<i>Eriogonum fasciculatum</i>)		✓
			ground pink (<i>Linanthus dianthiflorus</i>)		
Host Plant Mapping Updated (<i>circle</i>)		Yes	No	New Area or Existing Area (<i>circle</i>)	
				New	Existing
					Both
Species updated (list)					

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Evers amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue	(2)	pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	(14)	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)	(3)	common buckeye (<i>Junonia coenia grisea</i>)	(5)
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white	(6)	funereal duskywing (<i>Erynnis funeralis</i>)	(1)
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	(1)	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	(6)		
Column Subtotal	54	Column Subtotal	6
		Total	60

3.17.16 JPD 08 Area I . QCB 4 Amy

Ero bot.	Aem fa.	(Placere) where mapped
Hyp gla.	Dic cap.	
Hed cre	Vio ped.	
Sil gal.	Sis bet.	
Bra nig	Gubierrezia.	
Symbrium	- Allium	
Spargularia	- Eri fo.	
Ero cic	Bah lot	
Med pol	- Cryptantha	
	Arenispor sp.	226
	Lathyrus	
	Cal mac.	
	Mir lae	
	Galium . 4 leaves	
	- Muilla	
	Sanicula red	
	Cal cil	
	Sal api	
	- Ams int	along Rd in NE corner.
	Samnig ore	
	Sanicula yellow	
	Hef arb	
	Oxa cal	

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: GARRET HUFFMAN

Date: 3/18/16

Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch - PARCEL N

Site Visit No: 4

Acres Surveyed: 65 Survey Time: 8 HOURS

Acres per Hour: 8

Other Surveyors Present: NONE

Field Conditions

	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0830	61	2-4	0
End	1630	68	4-8	0
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

CHAMISE CHAPARRAL, COASTAL SAGE SCRUB, NON-NATIVE GRASSLAND

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	
purple owl's clover (<i>Castilleja exserta</i>)	Y	goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) <u>yes</u> No		New Area or Existing Area (circle) <u>New</u> Existing Both	
Species updated (list) <u>CASTILLEJA SP.</u>			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Myiitta crescent (<i>Phyciodes myiitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)	1	west coast lady (<i>Vanessa annabella</i>)	2
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	1
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	1
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	1
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	1
Sara orangetip (<i>Anthocharis sara sara</i>)	72	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	1	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)	1	common buckeye (<i>Junonia coenia grisea</i>)	8
checkered (common) white (<i>Pontia protodice</i>)	5	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	5
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	44	fiery skipper (<i>Hylephila phyleus</i>)	2
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	8		
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	132	Column Subtotal	21

TOTAL 153

2016 Quino Checkerspot Butterfly Survey Form

Surveyor Travis Cooper Date: 3/20/16
 Site Name: JPD-08 Proctor Valley – Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed 0 Acres Surveyed 63 Survey Time: 6.3 Acres per Hour: 10
 Other Surveyors Present: _____

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	1000	61	1-3	25%
End	1620	78	4-7	5%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)	chaparral (ADE FAS, ERI FAS, MAL LAU, ACM GLA)
non-native grassland, annual grassland	

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	X	goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	X
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	X
Host Plant Mapping Updated (circle) Yes <u>No</u>		New Area or Existing Area (circle) <u>New</u> Existing Both	
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limnitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiarctus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	2
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	36	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	13
checkered (common) white (<i>Pontia protodice</i>)	18	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	4
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	23	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	2
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	8	Harford's Sulfer	3
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	85	Column Subtotal	24
		Total	109

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: GARRETT HUFFMAN Date: 3/22/16
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed P/O Acres Surveyed 85.5 Survey Time: 8.5 Acres per Hour: 10
 Other Surveyors Present: NONE

Field Conditions

	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>0900</u>	<u>60</u>	<u>3-8</u>	<u>45</u>
End	<u>1730</u>	<u>64</u>	<u>2-8</u>	<u>15</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

CHAMISE CHAPARRAL, COASTAL SAGE SCRUB, NON NATIVE GRASSLAND

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	☒	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	☒
purple owl's clover (<i>Castilleja exserta</i>)	☒	goldfields (<i>Lasthenia</i> spp.)	☒
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	☒
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	☒
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	☒
		ground pink (<i>Linanthus dianthiflorus</i>)	☒
Host Plant Mapping Updated (circle) <u>Yes</u> No		New Area or Existing Area (circle) <u>New</u> Existing Both	
Species updated (list) <u>CASTILLEJA SP.</u>			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exilis</i>)		west coast lady (<i>Vanessa annabella</i>)	<u>2</u>
western tailed blue (<i>Eurema amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	<u>1</u>
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	<u>2</u>
Edward's blue (<i>Hemiaris ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	<u>1</u>
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	<u>2</u>	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	<u>2</u>
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>51</u>	anise swallowtail (<i>P. zelicaon</i>)	<u>1</u>
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>1</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	<u>4</u>	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	<u>5</u>
Metalmarks		mourning duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>3</u>	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	<u>61</u>	Column Subtotal	<u>14</u>

TOTAL 75

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: GARRETT HUFFMANDate: 3/20/16Site Name: JPD-08 Proctor Valley - Village 14 of Otay RanchSite Visit No: 4Area Surveyed RIP Acres Surveyed 85.5Survey Time: 8.5Acres per Hour: 10Other Surveyors Present: NONE

Field Conditions

	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	<u>0900</u>	<u>60</u>	<u>40 0-1</u>	<u>40</u>
End	<u>1720</u>	<u>72</u>	<u>0-2</u>	<u>25</u>
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

CHAMISE CHAPARRAL, COASTAL SAGE SCRUB, NON NATIVE GRASSLAND

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	<u>X</u>	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	<u>X</u>
purple owl's clover (<i>Castilleja exserta</i>)	<u>X</u>	goldfields (<i>Lasthenia</i> spp.)	<u>X</u>
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mulla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	<u>X</u>
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	<u>X</u>
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) <u>Yes</u> No		New Area or Existing Area (circle) <u>New</u> Existing Both	
Species updated (list) <u>CASTILLEJA SP.</u>			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbi</i>)	<u>1</u>	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	<u>1</u>
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	<u>1</u>
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	<u>1</u>
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	<u>3</u>	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	<u>1</u>
Sara orangetip (<i>Anthocharis sara sara</i>)	<u>105</u>	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	<u>4</u>	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	<u>5</u>
checkered (common) white (<i>Pontia protodice</i>)	<u>6</u>	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	<u>5</u>
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	<u>55</u>	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	<u>2</u>
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			

Column Subtotal 174Column Subtotal 16TOTAL 190

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: JOHN DICUS, MELANIE DICUS Date: 03-21-2016
 Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed JM Acres Surveyed 93 Survey Time: 7 HRS Acres per Hour: 6.6/each B10
 Other Surveyors Present: —

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0930	60	1.2	10%
End	1630	70	5.6	15%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)	
<u>ROSEAL/NING, CHAMISE CATARRHAL, SAME DOMINANT SPP. AS PREVIOUS WEEKS</u> <u>DISBURGED CSS, NEEDLEGRASS GRASSLAND</u>	

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>) / <i>DENSIFLORA</i>	X	goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	X
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	X
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) <u>Yes</u> No		New Area or Existing Area (circle) <u>New</u> Existing Both	
Species updated (list) <i>C. DENSIFLORA</i> - PLANTS STILL EMERGING, JUST STARTING TO FLOWER.			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbi</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidon checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)	/	west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	/	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	6
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	/	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	103	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	2	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	5
checkered (common) white (<i>Pontia protodice</i>)	11	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbria</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	25
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	63	fiery skipper (<i>Hylephila phyleus</i>)	1
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	4
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	6	<u>COLIAS HARFORDII</u>	3
sleepy orange (<i>Eurema nicippe</i>)		<u>LERODEA EUFALA</u>	2
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	188	Column Subtotal	46
		Total	234

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: MELANIE DUCUS, JOHN DUCUS

Date: 03-20-2016

Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch

Site Visit No: 4

Area Surveyed K, L

Acres Surveyed 108

Survey Time: 7.5 HOURS

Acres per Hour: 7.2 / ACH 610

Other Surveyors Present: —

Field Conditions

	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0920	60	0-1	25%
End	1650	72	0-2	20%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

<u>DISTURBED COASTAL SALINE SCRUB</u>	<u>dominant spp. SAME</u>
<u>NONNATIVE GRASSLAND</u>	<u>AS PREVIOUS WEEKS</u>

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	x	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	x
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	x
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	x
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	x
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	x
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle)	Yes ☒ No ☐	New Area or Existing Area (circle)	New ☐ Existing ☐ Both ☐
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcedon checkerspot (<i>E. chalcedona chalcedona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)	1	west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	1
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	2
Acmon blue (<i>Icaricia acmon acmon</i>)	3	unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	92	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	11
checkered (common) white (<i>Pontia protodice</i>)	9	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	10
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	32	fiery skipper (<i>Hylephila phyleus</i>)	3
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	24
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	11	<u>COLIAS HARBRON</u>	16
sleepy orange (<i>Eurema nicippe</i>)		<u>HELOPETERUS ERICETORUM</u>	2
cloudless sulfur (<i>Phoebus sennae marcellina</i>)		<u>PAPILIO CRISANTHES</u>	1
unidentified sulphur		<u>LERODEA EUFALA</u>	5
Column Subtotal	148	Column Subtotal	75
		Total	223

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: Brian Lohstroh **Date:** 18 March 2016
Site Name: JPD-08 Proctor Valley – Village 14 of Otay Ranch **Site Visit No:** 4
Area Surveyed S **Acres Surveyed** 47 acres **Survey Time:** 5.3 hrs **Acres per Hour:** 8.9
Other Surveyors Present:

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	09:10	64 air, 67 at ground	0-3	Clear
End	14:30	78	2-7	Clear
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

scrub (*B. laciniata*, *M. laurina*); chaparral (*A. fasciculatum*, *M. laurina*, *R. crocea*, *C. tomentosus*);

NNG (*Avena* spp, *Bromus* spp.)

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	X	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X
purple owl's clover (<i>Castilleja exserta</i>)	X	goldfields (<i>Lasthenia</i> spp.)	X
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Mulla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	X
		ground pink (<i>Linanthus dianthiflorus</i>)	X
Host Plant Mapping Updated (circle)	Yes	No	New Area or Existing Area (circle)
Species updated (list)			New Existing Both

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbi</i>)	4	brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcedon checkerspot (<i>E. chalcedona chalcedona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	1
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	2	painted lady (<i>V. cardui</i>)	2
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginiensis</i>)	3
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	1
marine blue (<i>Leptotes marina</i>)	2	Swallowtails	
Spring azure (<i>Celastrina ladon echo</i>)		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	23	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	5	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	1
checkered (common) white (<i>Pontia protodice</i>)	4	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	7
Metalmarks		moumful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	23	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	2
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	2	Lupine blue (<i>Plebejus lupines</i>)	
sleepy orange (<i>Eurema nicippe</i>)		<i>Erynnis</i> sp.	
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
dainty sulphur (<i>Nathalis iole</i>)	1		
Column Subtotal	66	Column Subtotal	17
		Total	83

2016 Quino Checkerspot Butterfly Survey Form

Surveyor:

Monica Alfaro

Date:

3/21/16

Site Name: JPD-08 Proctor Valley - Village 14 of Otay Ranch

Site Visit No:

4

Area Surveyed

I

Acres Surveyed

57

Survey Time:

6 hr 10 min

Acres per Hour:

9.25

Other Surveyors Present:

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	9:25	63 air 66 ground	1-2	30 %
End	3:36	76 air 84 ground	6-8	hazy cc so?
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

ANG, CSS, RD

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)		popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	✓
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)	
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	✓
		ground pink (<i>Linanthus dianthiflorus</i>)	
Host Plant Mapping Updated (circle) Yes	No	New Area or Existing Area (circle) New	Existing Both
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcidion checkerspot (<i>E. chalcidion chalcidion</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Myliatta crescent (<i>Phyciodes myliatta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	1+3
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginiensis</i>)	
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	
marine blue (<i>Leptotes marina</i>)	1+3	Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	4+5	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	1+4+3	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)		mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	2+10
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	1+3+15	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	1+6
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)			
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur			
Column Subtotal	56	Column Subtotal	23
		Total	79

2016 Quino Checkerspot Butterfly Survey Form

Surveyor: John Lovio **Date:** 3-18-16
Site Name: JPD-08 Proctor Valley – Village 14 of Otay Ranch **Site Visit No:** _____
Area Surveyed Polygon U **Acres Surveyed** 48 **Survey Time:** 5.2 hours **Acres per Hour:** 9
Other Surveyors Present: None

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	10:55	70	0	0
End	16:05	85	5-8, SW	0
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)

Chaparral: *Adenostema fasciculatum*, *Ceanothus tomentosus*, *Quercus berberidifolia*, *Xylococcus bicolor* > *Heteromeles arbutifolia*, *Mimulus aurantiacus*, *Rhus integrifolia*, *Malsoma laurina*, *Salvia munzii*, *Yucca schidigera*

Host Plants	Obs.	Nectar Plants	Obs.			
dwarf plantain (<i>Plantago erecta</i>)		popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	X			
purple owl's clover (<i>Castilleja exserta</i>)		goldfields (<i>Lasthenia</i> spp.)				
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)				
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)				
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	X			
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)				
		ground pink (<i>Linanthus dianthiflorus</i>)				
Host Plant Mapping Updated (<i>circle</i>)	Yes	No	New Area or Existing Area (<i>circle</i>)	New	Existing	Both
Species updated (list)						

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcid checkerspot (<i>E. chalcidona chalcidona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	1
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)		painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	2
Acmon blue (<i>Icaricia acmon acmon</i>)		unidentified lady (<i>Vanessa</i> sp.)	2
marine blue (<i>Leptotes marina</i>)	1	Swallowtails	
Spring azure (<i>Celastrina ladon echo</i>)		pale swallowtail (<i>Papilio eurymedon</i>)	1
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	21	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)		monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	
checkered (common) white (<i>Pontia protodice</i>)	3	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	4	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)		Lupine blue (<i>Plebejus lupines</i>)	
sleepy orange (<i>Eurema nicippe</i>)		<i>Erynnis</i> sp.	
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	2		
Column Subtotal	31	Column Subtotal	6
		Total	37

2016 Quino Checkerspot Butterfly Survey Form

Surveyor Alicia Hill Date: 3/17/16
 Site Name: JPD-08 Proctor Valley – Village 14 of Otay Ranch Site Visit No: 4
 Area Surveyed V Acres Surveyed 44 Survey Time: 5.0 Acres per Hour: 8.8
 Other Surveyors Present: —

Field Conditions				
	Time (24 hr)	Temperature (°F)	Wind Speed (mph)	Cloud Cover
Start	0930	68	0-1	0%
End	1430	88	1-4	0%
Start				
End				

Vegetation Communities Surveyed (inc. dominant spp.)	chamise chaparral (ADE FAS, ERI FAS, ACM GLA)
non-native grassland (Avena sp)	

Host Plants	Obs.	Nectar Plants	Obs.
dwarf plantain (<i>Plantago erecta</i>)	x	popcorn flower (<i>Cryptantha/Plagiobothrys</i> spp.)	x
purple owl's clover (<i>Castilleja densiflora</i>)	X	goldfields (<i>Lasthenia</i> spp.)	x
snapdragon (<i>Antirrhinum coulterianum</i>)		goldenstar (<i>Muilla</i> spp.)	
birds-beak (<i>Cordylanthus rigidus</i>)		fiddleneck (<i>Amsinckia menziesii</i> var. <i>intermedia</i>)	x
woolly plantain (<i>Plantago patagonica</i>)		onion (<i>Allium</i> spp.)	x
Chinese houses (<i>Collinsia</i> spp.)		buckwheat (<i>Eriogonum fasciculatum</i>)	x
		ground pink (<i>Linanthus dianthiflorus</i>)	x
Host Plant Mapping Updated (circle) Yes <u>No</u>		New Area or Existing Area (circle) New <u>Existing</u>	Both
Species updated (list)			

Butterfly Species	No.	Butterfly Species	No.
Checkerspots		Hairstreaks	
California patch (<i>Chlosyne californica</i>)		great purple hairstreak (<i>Atlides halesus corcorani</i>)	
Gabb's checkerspot (<i>C. gabbii</i>)		brown elfin (<i>Callophrys augustinus</i>)	
Quino checkerspot (<i>Euphydryas editha quino</i>)		bramble (perplexing) hairstreak (<i>C. dumetorum affinis</i>)	
chalcedon checkerspot (<i>E. chalcedona chalcedona</i>)		gray hairstreak (<i>Strymon melinus pudica</i>)	
Leanira checkerspot (<i>Thessalia leanira wrighti</i>)		Ladies/Admirals	
Mylitta crescent (<i>Phyciodes mylitta</i>)		California sister (<i>Adelpha bredowii californica</i>)	
Blues		Lorquin's admiral (<i>Limenitis lorquini</i>)	
western pygmy-blue (<i>Brephidium exila</i>)		west coast lady (<i>Vanessa annabella</i>)	
western tailed blue (<i>Everes amyntula</i>)		red admiral (<i>V. atalanta rubria</i>)	
southern blue (<i>Glaucopsyche lygdamus australis</i>)	4	painted lady (<i>V. cardui</i>)	
Edward's blue (<i>Hemiargus ceraunus gyas</i>)		American (Virginia) lady (<i>V. virginensis</i>)	2
Acmon blue (<i>Icaricia acmon acmon</i>)	1	unidentified lady (<i>Vanessa</i> sp.)	5
marine blue (<i>Leptotes marina</i>)		Swallowtails	
unidentified blue		pale swallowtail (<i>Papilio eurymedon</i>)	
Whites		western tiger swallowtail (<i>P. rutulus</i>)	
Sara orangetip (<i>Anthocharis sara sara</i>)	120	anise swallowtail (<i>P. zelicaon</i>)	
desert (Felder's) orangetip (<i>A. cethura</i>)		Miscellaneous	
common California ringlet (<i>Coenonympha californica</i>)	5	monarch (<i>Danaus plexippus</i>)	
cabbage white (<i>Pieris rapae</i>)		common buckeye (<i>Junonia coenia grisea</i>)	6
checkered (common) white (<i>Pontia protodice</i>)	4	mourning cloak (<i>Nymphalis antiopa</i>)	
spring white (<i>P. sisymbrii</i>)		Skippers	
unidentified white		funereal duskywing (<i>Erynnis funeralis</i>)	3
Metalmarks		mournful duskywing (<i>Erynnis tristis</i>)	
Behr's metalmark (<i>Apodemia mormo virgulti</i>)	58	fiery skipper (<i>Hylephila phyleus</i>)	
Wright's metalmark (<i>Calephelis wrighti</i>)		white (common) checkered-skipper (<i>Pyrgus albescens</i>)	9
Sulphurs		Other	
orange sulphur (<i>Colias eurytheme</i>)	3	Duskywing sp.	1
sleepy orange (<i>Eurema nicippe</i>)			
cloudless sulfur (<i>Phoebus sennae marcellina</i>)			
unidentified sulphur	7		
Column Subtotal	202	Column Subtotal	26
		Total	228

DIC CAP;VIO PED ; Crypt.;ERO CIC;HER INC; Plagio.;MAL DEN;CAM BIS;LUP BIC;NUT TEX;MIR LAE;SOL PAR;SIS ORI;SAL MUN;SID SPA;BRA NIG;MIM AUR;ERO BOT;ADE FAS;SAN BIP;CEA TOM;SIL GAL;CLA PUR;BAH LAN;CAL MAC;COT COR