Annual Report for Quino Checkerspot Butterfly
(*Euphydryas editha quino)* Surveys 1999
PRT-837307 and TE-842199-2

Introduction

Surveys for the quino checkerspot butterfly (QCB) were conducted by Ms. Holly Boessow under PRT-837307 and Mr. Keith Greer under TE-842199-2 during the 1999 QCB flight season (March 1 through May 10, 1999). Any harassment of the QCB was through survey only, no collection or other forms of harassment occurred as a part of these permit activities.

Surveys were conducted to determine the presence or absence of QCBs on lands owned by the City of San Diego. The objective of these surveys was to enhance the survival of the QCB by locating populations of the species and reporting those findings to the U.S. Fish and Wildlife Service (USFWS).

Methodology

Four properties were surveyed during the 1999 QCB flight season: Carmel Mountain, Otay Lakes, Mission Trails, and San Vicente. The dates and times of these surveys are given in Attachment A.

Surveys for this species must be done during the flight season, which is variable from year to year. In 1999, the flight season determined by USFWS began on March 1 and ended on May 10. USFWS protocol for the QCB requires that surveys are done once a week for each week of the flight season. Due to scheduling constraints, surveys could not be conducted every week of the flight season. The City recognizes that these surveys may not be considered adequate to determine absence of the species, but efforts to confirm presence and habitat assessments are still believed to be beneficial. Additional surveys were also performed by USFWS staff and Gordon Pratt, UC Riverside, which should help augment these results.

Except for the reduced number of surveys, all surveys were conducted in accordance with current USFWS protocol for this species, between 0900 and 1600 hours, and during favorable weather conditions. The entire site was surveyed on foot and all species observed were noted. Butterflies and other insect species were identified through direct observation with the aid of binoculars. Mammal and bird species were identified through direct observation with the aid of binoculars, vocalization, scat, and/or tracks. Sufficient time was spent in all appropriate habitats to determine the presence/absence of the QCB.

Results

Mission Trails

The habitat in Mission Trails Regional Park consists of coastal sage scrub, chamise chaparral, native grasslands, non-native grasslands, and disturbed habitats. Dot seed plantain (*Plantago erecta*) was found in coastal sage scrub habitat on-site within Suycott Wash. Nectaring plants such as popcorn flower (*Crypantha* spp.) and goldfields (*Lasthenia californica*) are found throughout the park.

All plant species known to occur within the park are listed in the Checklist of the Vascular Plants of Mission Trails Regional Park, San Diego, California compiled by Dr. Michael G. Simpson, San Diego State University.

Habitat for the QCB does occur on-site, however, no QCB individuals were found on-site. No federally listed plant or wildlife species were observed on-site during QCB surveys. Butterfly species observed on-site are listed in Attachment B.

Carmel Mountain

The habitat on Carmel Mountain consists of coastal sage scrub, southern maritime chaparral, chamise chaparral, non-native grasslands, and disturbed habitats. Dot seed plantain (*Plantago erecta*) was found alongside roads on-site. Nectaring plants such as popcorn flower (*Crypantha* spp.) and goldfields (*Lasthenia californica*) are found throughout the site.

No QCB individuals were found on-site. No federally listed plant or wildlife species were observed on-site during QCB surveys. Plant species observed on-site are listed in Attachment C. Butterfly species observed on-site are listed in Attachment D.

Otay Lakes

The habitat on Otay Lakes consists of coastal sage scrub, chamise chaparral, non-native grasslands, and disturbed habitats. Dot seed plantain (*Plantago erecta*) was found alongside roads on-site. Nectaring plants such as popcorn flower (*Crypantha* spp.) and goldfields (*Lasthenia californica*) are found throughout the site.

Habitat for the QCB does occur on-site, however, no QCB individuals were found on-site. No federally listed plant or wildlife species were observed on-site during QCB surveys. Plant species observed on-site are listed in Attachment E. Butterfly species observed on-site are listed in Attachment F.

San Vicente

The habitat at San Vicente Reservoir consists of coastal sage scrub, chamise chaparral, non-native grasslands, and disturbed habitats. Dot seed plantain (*Plantago erecta*) was found within the coastal sage scrub habitat on-site. Nectaring plants such as popcorn flower (*Crypantha* spp.)

and goldfields (*Lasthenia californica*) are found throughout the site.

Habitat for the QCB does occur on-site, however, no QCB individuals were found on-site. No federally listed plant or wildlife species were observed on-site during QCB surveys. Plant species observed on-site are listed in Attachment G. Butterfly species observed on-site are listed in Attachment H.

Conclusion

As stated above, habitat for the QCB does occur within the City-owned lands surveyed but no QCB were observed.

This concludes the annual report for QCB surveys conducted under PRT-837307. If there are any questions or comments regarding this report, please contact Holly Boessow at (619) 533-6301.

Attachment B: Butterflies Observed at Mission Trails		
Scientific Name	**Common Name**	**Total Number Observed**
Papilo eurymedon	Pale swallowtail	1
Paplio zelicaon	Anise swallowtail	2
Coenonympha californica	California ringlet	192
Danaus plexippus	Monarch	2
Charidryas gabbii	Gabb's checkerspot	2
Vanessa annabella	West Coast lady	2
Junonia coenia	Buckeye	3
Everes amyntula	Western tailed blue	7
Glaucopsyche lygdamus australis	Southern blue	33
Brephidium exilis	Pygmy blue	1
Strymon melinus	Gray hairstreak	1
Callophyrys perplexa	Perplexing hairstreak	7
Apodemia mormo virgulti	Behr's metalmark	48
Erynnis funeralis	Dusky winged skipper	5