

# Wandering Skipper Survey at Famosa Slough, San Diego, California



27 August 2010

Observers: Keith Greer, Betsy Miller, and Kim Roeland

## Introduction

The wandering skipper (*Panoquina errans*) is a small butterfly of the family HesperIIDae. It is identifiable by its rich dark brown color and cream-colored spots on the dorsal forewing. The wandering skipper is found only along the coast in southern California, Baja California and northwestern mainland Mexico. Populations have been recorded from Huntington Beach, Upper Newport Bay, and Capistrano Beach (Orsak, 1977). In San Diego, the wandering skipper has been documented in the Tijuana Estuary, San Dieguito Lagoon, and Agua Hedionda lagoon (SanGIS, 2010), but it appears that no extensive survey data have been published.

The wandering skipper is on the IUCN Red List of Threatened Species (World Conservation Monitoring Centre, 1996) and is under consideration for possible listing on the endangered species list as a threatened species because of the reduction of salt marsh habitat.

The larval host plant for this species, salt grass (*Distichlis spicata*), is found in transitional habitats along the edge of the high marsh. Nectar sources include *Heliotropium* spp., *Haplopappus* spp., and *Frankenia salina* (Orsak 1977). Potential habitat for the wandering skipper was considered to be areas containing the larval host plant in close proximity to nectar plants.

Surveys were completed to determine presence of the wandering skipper in potential habitat areas within Famosa Slough, San Diego, California, both north and south of West Point Loma Blvd.

## Methods

The surveys were conducted on August 27, 2010. The first survey, in high marsh habitat south of W. Point Loma Blvd and along the eastern edge of the wetlands, was conducted between 1:25 p.m. and 2:05 p.m. A second survey, 2:14 p.m. to 2:40 p.m., was conducted north of W. Point Loma Blvd.

Butterflies were detected using a Pollard walk (Pollard, 1977) with 2-3 observers moving along a line through potential habitat. Binoculars were used to aid visual identification. A handheld GPS unit (Garmin GPSMAP 60, WAAS enabled) was used to record the location of each individual detected; photos were taken when possible to confirm identification. Significant salt grass patches (typically > 5 m<sup>2</sup>) were also recorded using the handheld GPS device. The observers were conscientious about not counting the same individual twice; they noted the direction of flight of the individual and one observer tracked any individuals that moved in the same direction of the observers. The observers felt that no individuals were double counted.

Temperature and wind speed remained fairly constant for both surveys (73.6°F to 70.5°F and 2.05 – 3.23 mi/hr). Both wind and temperature were ideal for the identification of the wandering skipper. Cloud cover was low during the first survey (15%) and cleared to 0% cover for the second survey.

## Results

Fifty-eight individuals of wandering skipper were detected at Famosa Slough (Table 1). Thirty were detected on the south side of W. Point Loma Blvd (Figure 1) and 29 were detected on the north side (Figure 2). Individuals were detected mainly on salt grass and *Frankenia*, though some were also detected on pickleweed (*Sarcocornia pacifica*) and salty susan (*Jaumea carnosa*). Habitat quality was excellent with significant salt grass patches

(Table 2) found in close proximity to flowering *Frankenia* on both the south and north sides of W. Point Loma Blvd (Figures 3-4).

This survey is not intended to be a comprehensive survey of the entire reserve, but can be added to surveys by others.

#### References

Orsak, L.J. 1977. The Butterflies of Orange County. Center for Pathobiology Miscellaneous Publication #3. University of California Press, New York. 349 pp.

Pollard, E. 1977. A method for assessing changes in the abundance of butterflies. *Biological Conservation.*, 12:115-134.

SanGIS Digital sources: Natural Diversity Database and Sensitive Sighting Database. 2010.

World Conservation Monitoring Centre 1996. *Panoquina errans*. 2006 IUCN Red List of Threatened Species. Downloaded on 13 Aug 2010.

<b>Table 1. Wandering Skipper Locations, Famosa Slough</b>				
Observers: Keith Greer, Betsy Miller, and Kim Roeland				
Observation Point	Date	Time	N (degrees)	W (degrees)
1	8/27/2010	1:35	32.7519	-117.2271
2	8/27/2010	1:36	32.7518	-117.2271
3	8/27/2010	1:37	32.7517	-117.2271
4	8/27/2010	1:38	32.7517	-117.2271
5	8/27/2010	1:39	32.7516	-117.2271
6	8/27/2010	1:40	32.7515	-117.2271
7	8/27/2010	1:41	32.7514	-117.2271
8	8/27/2010	1:41	32.7514	-117.2271
9	8/27/2010	1:41	32.7514	-117.2271
10	8/27/2010	1:42	32.7514	-117.2271
11	8/27/2010	1:42	32.7514	-117.2270
12	8/27/2010	1:42	32.7513	-117.2271
13	8/27/2010	1:42	32.7512	-117.2270
14	8/27/2010	1:43	32.7512	-117.2220
15	8/27/2010	1:43	32.7512	-117.2270
16	8/27/2010	1:46	32.7510	-117.2271
17	8/27/2010	1:46	32.7509	-117.2271
18	8/27/2010	1:46	32.7509	-117.2271
19	8/27/2010	1:46	32.7509	-117.2271
20	8/27/2010	1:47	32.7508	-117.2269
21	8/27/2010	1:47	32.7508	-117.2270
22	8/27/2010	1:49	32.7508	-117.2270
23	8/27/2010	1:49	32.7508	-117.2270
24	8/27/2010	1:49	32.7508	-117.2270

25	8/27/2010	1:50	32.7506	-117.2271
26	8/27/2010	1:50	32.7506	-117.2271
27	8/27/2010	1:50	32.7506	-117.2272
28	8/27/2010	1:51	32.7505	-117.2273
29	8/27/2010	1:52	32.7504	-117.2274
30	8/27/2010	1:53	32.7504	-117.2274
31	8/27/2010	2:18	32.7547	-117.2289
32	8/27/2010	2:18	32.7547	-117.2289
33	8/27/2010	2:20	32.7546	-117.2290
34	8/27/2010	2:20	32.7546	-117.2290
35	8/27/2010	2:20	32.7546	-117.2291
36	8/27/2010	2:20	32.7545	-117.2291
37	8/27/2010	2:20	32.7546	-117.2291
38	8/27/2010	2:21	32.7545	-117.2291
39	8/27/2010	2:22	32.7546	-117.2291
40	8/27/2010	2:22	32.7546	-117.2292
41	8/27/2010	2:22	32.7546	-117.2292
42	8/27/2010	2:22	32.7545	-117.2292
43	8/27/2010	2:23	32.7545	-117.2292
44	8/27/2010	2:23	32.7545	-117.2293
45	8/27/2010	2:23	32.7545	-117.2293
46	8/27/2010	2:23	32.7545	-117.2294
47	8/27/2010	2:24	32.7544	-117.2294
48	8/27/2010	2:26	32.7542	-117.2292
49	8/27/2010	2:27	32.7541	-117.2293
50	8/27/2010	2:28	32.7540	-117.2294
51	8/27/2010	2:31	32.7534	-117.2294
52	8/27/2010	2:31	32.7533	-117.2294
53	8/27/2010	2:31	32.7533	-117.2294
54	8/27/2010	2:31	32.7534	-117.2295
55	8/27/2010	2:32	32.7534	-117.2295
56	8/27/2010	2:32	32.7533	-117.2295
57	8/27/2010	2:33	32.7533	-117.2295
58	8/27/2010	2:36	32.7530	-117.2293
58	8/27/2010	2:38	32.7529	-117.2294

Table 2. Significant Salt Grass Patches, Famosa Slough				
Observers: Keith Greer, Betsy Miller and Kim Roeland				
Observation Point	Date	Time	N (degrees)	W (degrees)
1	8/27/2010	2:17	32.7548	-117.2291
2	8/27/2010	2:19	32.7546	-117.2289
3	8/27/2010	2:27	32.7541	-117.2293
4	8/27/2010	2:21	32.7545	-117.2292
5	8/27/2010	2:32	32.7533	-117.2295

**Figure 1. Famosa Slough Wandering Skipper Survey  
South Side**



0 150 300 600 Feet

DIGITALGLOBE

**SANDAG**



**Figure 2. Famosa Slough Wandering Skipper Survey  
North Side**



0 145 290 580 Feet

DIGITALGLOBE

**SANDAG**



Figure 3. Keith Greer recording location of wandering skipper with GPS, South Side, Famosa Slough, San Diego



Figure 4. Betsy Miller observing wandering skippers in high quality habitat, North Side, Famosa Slough, San Diego