

2007 Surveys for Coastal Populations of Mardon Skipper:
A Report to the Bureau of Land Management,
Coos Bay District



Prepared by:

Dana Ross
Corvallis, Oregon

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SUMMARY

Surveys for Mardon Skipper (*Polites mardon* ssp.) were conducted June 12-15, 2007 on public lands in Curry County, Oregon. After visiting two area sites with active skipper colonies, additional potential habitat for Mardon Skipper was surveyed and assessed. No new colonies were found, although several sites were observed to have high quality serpentine-bunchgrass habitat and should be revisited. The timing of these surveys appears to have toward the end of Mardon Skipper flight due to a regional trend towards early flight for spring-flying butterflies in 2007. Future surveys may be more successful if they are conducted during a slightly earlier phase of butterfly-plant phenology- the equivalent of an average late May.

METHODS

Known area populations of Mardon Skipper (*Polites mardon* ssp.) were visited to validate the timing of these surveys and to obtain a more precise search image for potential habitat. It was agreed that Mardon Skipper surveys should occur on public lands with the best potential habitat to optimize skipper detection within the area. With the help of U.S. Forest Service (Gold Beach) personnel, high priority sites on National Forest lands were identified using area maps and local knowledge. These sites were subsequently surveyed for Mardon Skipper and assessed as potential Mardon Skipper habitat.

Mardon Skipper surveys were conducted in a manner consistent with Mardon Skipper Survey Protocol and took place under conditions suitable for Mardon Skipper flight- essentially warm, sunny weather between 10am and 4pm. For each site, potential skipper habitats were inspected slowly and thoroughly on-foot with the aid of a butterfly net. Notes were made on the presence and abundance of various potential resources such as bunchgrasses and nectar plants. After each site was visited, a recommendation was made to either revisit it or to omit it from future surveys.

RESULTS & DISCUSSION

A total of 8 sites were visited/surveyed for Mardon Skipper from June 12-15, 2007. June 12th surveys were conducted with Holly Witt (BLM) while June 14th surveys were accomplished with the help of Mike Miller (USFS). A summary of results for each site visited is given below (also see Table 1). GeoBOB survey forms and a CD of photographs will be submitted separately from this report.

1. Low Divide Road (Del Norte County, California).

Site visited June 12, 2007. The visit was made to establish the progress of area Mardon Skipper flight, to note details of Mardon skipper habitat and to provide first hand experience and knowledge of these to BLM biologist Holly Witt. While **Mardon Skipper was present and relatively common**, overall abundance had declined from the level observed by me 2-3 weeks earlier. The site contained abundant bunchgrasses

growing on serpentine soils with a variety of nectar available that included a small yellow sunflower, a tall yellow “dandelion”, Blue-eyed Grass, and a lily (*Calochortus* species) among others. This site is the most reliable indicator of Mardon Skipper flight for the area due to the large population of skippers there.

2. Lone Ranch Beach (Samuel H. Boardman State Park)/Cape Ferrelo.

Site visited June 12, 2007. The site was visited to show Holly Witt the habitat at the only currently documented site (discovered June 2007) for coastal Mardon Skipper in Oregon. **No Mardon Skippers were observed.** Habitats visited included several serpentine outcrops with abundant bunchgrasses. Nectar sources were relatively plentiful and included flowers of Blue-eyed Grass, an onion, Yarrow, a “dandelion and a “buttercup” (*Ranunculus* species). This site will be revisited in 2008 under a Xerces/USFWS-funded contract.

3. “Woodruff” meadow complex (W of Rd. #3313, about 2 mi. S Rogue River).

Site visited June 12 (briefly, late in day, with Holly Witt) and June 15, 2007. The site consists of a complex of small to medium-sized meadows of variable quality as potential habitat for Mardon Skipper. The site includes both serpentine-bunchgrass and deeper soiled meadows, all as openings within a conifer-hardwood forest that includes Jeffrey Pine, Douglas-fir, Madrone, Port Orford Cedar, Incense Cedar, XXX.... Nectar sources were relatively plentiful and diverse and included XXX.... **No Mardon Skippers were observed.** The site should be revisited earlier in the season.

4. “Potato Patch” meadow complex (North side of Rogue River about 5 miles E of Lobster Creek Bridge on Rd. #3533, downhill from trailhead,).

Site visited June 13, 2007. Just inland from coastal fog/clouds on this date. A lower elevation site (just above the Rogue River) that was already very dry. Two larger meadows were evident, although the best habitat – and the only true serpentine-bunchgrass area on-site – was a small area on a bluff directly above the river. More potential habitat appeared just upstream, but appeared difficult to access and was not surveyed. A small seasonal stream (dry) was present in a portion of the main lower meadow. Bunchgrasses were present, but patchy, except for the smaller bluff habitat where bunchgrasses were dominant. Nectar sources included flowers of a tall “dandelion”, Yarrow, a purple onion or “brodeia”, Azalea, Ox-eye Daisy, a flax, and what appeared to be a “poppy”. Area trees included Douglas-fir, Tan-oak, Alder and Madrone. **No Mardon Skippers were observed.** The site should be revisited earlier in the season.

5. “Skookumhouse Prairie vicinity” (Just to the north of “Potato Patch”).

Area visited June 13, 2007. As I was in the immediate vicinity, an attempt was made to locate the mapped and highlighted meadows just south of Skookumhouse Prairie on Forest Service lands. Two separate gravel-dirt roads were driven during this attempt, but the targeted openings were never located. **The effort was aborted** after about 1 hour to ensure that the “Signal” site would be surveyed on this date. It appears that little open meadow habitat remains, thus the area can be omitted from future surveys.

6. Small summit meadow at junction of Rds. #3313/#070 (T.36S, R.13W, S.22).
 Site visited June 13, 2007. This roadside serpentine and bunchgrass habitat was encountered at the summit of a modest incline (going south on Road #3313), approximately 3-1/2 miles south of the Rogue River. While the site is small, the habitat was of high quality and may represent only a portion of what exists within the greater area. Road cuts had created exposed and conspicuous areas of serpentine, and bunchgrasses were locally abundant. Nectar sources were varied and reasonably plentiful, and included a purple aster, Blue-eyed Grass, a flax, Yarrow, Self-heal (*Prunella* species) and a small species of *Ranunculus*. **No Mardon Skippers were observed.** The site should be revisited earlier in the season.

7. “Signal” meadow complex, just south of Signal Buttes and adjacent to (east of) the BLM Hunter Creek ACEC.

Site visited June 13, 2007. Most available time was spent within two designated meadows along Road #196. **No Mardon Skippers were observed** in either meadow, although bunchgrasses were plentiful and nectar sources were reasonably abundant. A large complex of meadows along Road #195 toward Signal Buttes and east towards the Hunter Creek ACEC also contained high quality habitat, but was not properly sampled due to the late hour of the day (after 4pm). The amount of high-quality habitat in the area is quite large and should be surveyed more completely in 2008. The meadows within the Hunter Creek ACEC should be included as they are functionally part of this site.

8. “Pine Grove” meadow complex (3-5 air miles SW Agness, vicinity of Pebble Hill and Seven Mile Peaks).

The site was visited June 14, 2007 with USFS (Gold Beach) biologist Mike Miller and was the only site visited on this date. Three distinct areas were included. The south meadow was quite dry and rocky and did not appear suitable for Mardon Skipper. The small middle meadow, just northeast of there had some high quality wet meadow habitat that was very similar in structure to Mardon Skipper habitat in the southern Oregon Cascades and **should be revisited**. The north meadow encompassed the largest area, but had been severely degraded by encroachment. It could be revisited and explored more extensively, but it did not appear to contain high quality Mardon Skipper habitat.

Table 1. Sites Surveyed with Comments and Recommendations.

| <u>Site</u> | <u>Comments</u> | <u>Recommendations</u> |
|----------------|----------------------------------|--|
| Low Divide | Reference site. | Use to establish Mardon Skipper flight period. |
| Lone Ranch | Mardon Skipper present. | Resurvey in 2008. |
| Woodruff | Ranks high after initial visits. | Resurvey in 2008. |
| Potato Patch | Contains some quality habitat. | Resurvey lower meadows in 2008. |
| Skookumhouse | Apparently lost to encroachment. | Omit from future surveys. |
| Junct 3313/070 | Small, but of high quality. | Resurvey in 2008. |
| Signal | Large area. Good habitat. | Resurvey in 2008. |
| Pine Grove | N and S meadows unsuitable. | Resurvey middle meadow in 2008. |

CONCLUSIONS

Given the evidence to date, the coastal southern Oregon/northern California segregate of Mardon Skipper appears to be entirely restricted to serpentine-based bunchgrass plant communities. These localized serpentine habitats appear to differ markedly from the larger wet prairie complexes of the southern Oregon Cascades that are home to the subspecies *Polites mardon klamathensis*.

2007 marks the first year that formal area-wide surveys have been conducted for coastal Oregon populations of Mardon Skipper. While this project did not document any new populations of the butterfly, it did serve to help locate sites with high quality potential habitat and to omit some unsuitable locales. It now appears that these surveys took place after the peak flight of area Mardon Skipper populations since the onset of flight for spring butterflies was relatively advanced during 2007. Future surveys should target a time period that coincides with a spring plant-butterfly phenology that is about 2-3 weeks earlier. This type of survey refinement is all part of the learning process and is not unusual when attempting to document a relatively little-known organism.

PHOTOGRAPHS

A number of site/habitat photographs were taken during the course of these surveys. These are included on a separate disk (CD) in an effort to keep this file small enough to submit as an email attachment.

GeoBOB SURVEY FORMS/MAPS

GeoBOB forms and associated maps for each survey/site are being mailed separately.