

2009 Surveys for Mardon Skipper (*Polites mardon*) on the
Gold Beach Ranger District
of the Rogue River-Siskiyou National Forest

Report Submitted by

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SUMMARY

A total of 12 surveys for Mardon skipper were conducted at 11 sites on the Gold Beach Ranger District of the Rogue River-Siskiyou National Forest during late May and early June, 2009. Some sites were surveyed for the first time while others were revisited after having been determined to have good potential habitat for Mardon skipper during surveys in the recent past.

Mardon skipper was documented once during this study - in a small moist meadow with a strong serpentine and bunchgrass component and abundant nectar sources - and provides the first formal documentation of Mardon skipper on the Gold Beach Ranger District. It is one of only three sites where this rare insect has been found in coastal southern Oregon in over three decades.

INTRODUCTION

Mardon skipper (*Polites mardon*) is a federal Candidate for protection under the Endangered Species Act. It is endemic to the Pacific Northwest where it occupies a highly disjunct distribution in four discrete areas (Mattoon et al 1998, Pyle 2002): the 1) Puget Trough and 2) Mount Adams regions of Washington State (Hinchliff 1996, Potter et al 1999), 3) the southern Oregon Cascades (Hinchliff 1994, Warren 2005) and 4) coastal portions of northern California (Mattoon et al 1998) and southern Oregon (Andrew Warren communication 2006, Ross 2007, Ross 2008). This spotty distribution illustrates the relict nature of Mardon populations within the region, and, when combined with the scarcity of formerly more widespread Pacific Northwest prairies, suggests that there may be a significant threat to the species due to habitat loss.

Coastal Mardon skipper populations appear to be closely associated with serpentine-based soils supporting wet-dry transitional prairie habitats that include plentiful bunchgrasses and varied and abundant nectar sources. Indeed, each coastal Mardon record was from this basic habitat type. Specimens of *Polites mardon* from coastal Oregon were first discovered at The McGuire Center for Lepidoptera and Biodiversity (Gainesville, Florida) by Andrew Warren with the label data "2 miles N Gold Beach", suggesting the locality of collection to be the serpentine-bunchgrass hillsides to the north of the Rogue River near Wedderburn. Ross (2007) found a single male Mardon skipper at the base of a bunchgrass hillside at Lone Ranch State Beach near Cape Ferrello and discovered a larger population on BLM lands on serpentine meadow habitat at Hunter Creek ACEC the following year (Ross 2008).

Many serpentine meadows remain to be surveyed for Mardon skipper. This study builds on previous surveys and should help to focus future survey efforts.

METHODS

A list of Gold Beach Ranger District sites with potential Mardon skipper habitats (some having been surveyed once or more in past years) was identified by Michael Miller (Table 1) and was the primary focus of this study. Additional sites were also suggested by Miller and some of those were also visited.

The published survey protocol for Mardon skipper (Seitz et al 2006) was largely followed although a more rapid assessment of some sites was made when deemed reasonable.

For each survey conducted, the site was visited within the area flight period for Mardon skipper. The Hunter Creek ACEC population (BLM lands) - where Mardon skipper was documented flying between mid-May and mid-June, 2008 - served as a reference for this purpose. Surveys were conducted under conditions suitable for butterfly activity with mid-survey pauses as warranted when rain showers or clouds temporarily prevailed – a not uncommon spring occurrence. Each site was carefully inspected on foot for the presence of Mardon skipper and site characteristics (habitat size, habitat suitability, larval and adult plant resources, butterfly species present) were noted along with date, time and weather conditions encountered. The data was then transferred to BLM GeoBOB forms which are summarized below.

Table 1. Mardon Skipper Survey Areas – Priority Sites for 2009 (Table created by Michael Miller, Gold Beach Ranger Station, 23 July 2008).

Area	Estimated Habitat Quality	MA9-Special Wildlife Site Number	MA-9 Acres	Grass Acres
Signal Area Pine Meadows	Moderate	MD 0685	41	~ 10
Signal Area Pine Meadows	Moderate	MD 3088	45	~ 30
Signal Area (Oak Meadow)	Moderate	MD 0684	13	~ 3
Saunders's Meadow	High	MD 0079	41	~ 6
Wilson/Woodruff	Moderate	MD 0671	250	~ 100
Pebble Hill	Moderate	MD 0058	40	~ 19
Pebble Hill	* High	MD 0058	7	~ 3
Wagon Wheel	Moderate	MD 00674	43	~ 16
		TOTAL	480	~ 187

SUMMARY OF SURVEY RESULTS

A total of 11 Gold Beach Ranger District sites were surveyed for Mardon skipper during 2009. **Mardon skipper was observed only once** - at the Rd.#100 meadow on 22 May - **but was the first ever formal documentation of the species on Gold Beach Ranger District**. Sites are presented in the order in which they were visited.

1. Wilson/Woodruff – Surveyed 22 May. The site was also surveyed in 2007 and 2008. The several discrete meadows within this complex were all included, with most time and effort devoted to the largest serpentine-bunchgrass meadow. While the latter meadow appeared quite suitable for the skipper, none were observed. It is doubtful that Mardon skipper breeds at the site regularly but **adults may turn up there on occasion**. More intensive monitoring would be required to verify that possibility. No additional surveys are necessary at this time.

2. Rd.#100 (off Rd.#3313) – Surveyed 22 May for the first time. **A single fresh male Mardon Skipper was observed defending a grassy habitat patch in the lower and moister portion of the site.** This site contained all the components of a typical Mardon skipper meadow on a small scale and appears to be part of a larger complex of small, loosely connected serpentine-bunchgrass meadows and roadside habitats. The lower portion of the site contained some wet meadow habitat (camas lily present) whereas the area just upslope was much drier and supported abundant bunchgrasses. Nectar sources were plentiful and varied and other butterflies were locally abundant. **Recent ATV and/or 4WD truck damage was evident and appears to be a major threat to this fragile site.** A second survey was attempted on 5 June but was not possible under locally overcast conditions that prevented butterfly activity. The site was visited and surveyed again 12 June under good weather conditions but Mardon was not observed. **This site should be monitored annually to better determine the frequency of use by Mardon skipper and whether or not it is a breeding site.**
3. Wagon Wheel Meadow – Surveyed 23 May for the first time. Serpentine-bunchgrass habitat appeared to be present on adjacent private lands, but was not prevalent on-site to any degree. The hill top, slopes and meadow bottoms of the USFS lands were inspected but Mardon skipper was not encountered. The non-serpentine and deep-soiled nature of the site appeared inappropriate for Mardon use and future surveys there should be considered optional.
4. Saunder's Meadow – Surveyed 23 May for the first time. The site includes a relatively deep-soiled meadow with a fair bit of moisture and a small, remnant cattle pond with sedges. Nectar was largely limited to abundant western buttercup on this date. Since it is adjacent to serpentine-bunchgrass habitat, the site may harbor Mardon skipper on occasion. **Additional surveys are thus warranted.**
5. Winton Prairie to Packsaddle Gulch (Packsaddle Mountain area) – Surveyed 23 May. Winton Prairie was also surveyed in 2007 and 2008 and was only briefly inspected here. A large wet area within Packsaddle Gulch had been noted on previous visits but had not been surveyed due to lack of time. The site required a cross country hike to gain access. On this date (23 May) the Packsaddle Gulch site was accessed and proved to be a large, wet *Darlingtonia* bog. While the soils within this area were largely serpentine in nature, little bunchgrass was present and Mardon skipper was not observed. Future surveys should be considered optional.
6. Pebble Hill – Surveyed 24 May. The larger Pebble Hill area was surveyed in 2007 and the small meadow was visited again in 2008. Only the small meadow area was surveyed as it represented the highest quality potential habitat for Mardon skipper locally. Mardon skipper was not observed. Nectar sources were somewhat varied but were not overly abundant. The meadow is quite small and is somewhat isolated. **The site showed signs of rapid encroachment by Jeffrey**

- pine and had been scarred by recent ATV activity.** No additional surveys are needed.
7. Fry Place – Surveyed 24 May for the first time. All visible and accessible open areas were surveyed although all habitats within this relatively large site may not have been included. Habitats surveyed included steep, dry hillsides and a number of grassy mosaic areas within second growth brush that did not appear to be suitable for Mardon. The skipper was not observed. **Future surveys are warranted only if serpentine-bunchgrass meadows were overlooked.**
 8. Wildhorse Lookout – Surveyed 24 May for the first time. A large open summit meadow. While bunchgrass and nectar sources were reasonably plentiful, the serpentine nature of the underlying soil, if present, was not obvious to me. **The site is a curious one and should probably be surveyed again.**
 9. Wildhorse Meadow – Surveyed 24 May for the first time. This large meadow offered a good abundance of bunchgrasses, but contained little moisture and no obvious serpentine habitats. Nonetheless, **I recommend that additional surveys be conducted** before making any determination about its relative value as Mardon skipper habitat.
 10. Rd.#304/308 “Oak Meadows” (off Rd.#3318) – Surveyed 24 May for the first time. The site appeared to lack serpentine-based soils and Mardon skipper was not encountered. Butterflies were plentiful and varied within a rare plant community that included Oregon White Oak. Additional surveys for Mardon skipper should be considered optional although other taxa of management concern (oak obligate species) are likely present and may warrant documentation.
 11. Signal Buttes Area – Surveyed 12 June. Also surveyed (in part) in 2007. Multiple visits to the area were made, but localized clouds and drizzle prevented effective surveys from being executed until this date. This survey took place in intermittent sunshine and was ended prematurely when afternoon showers gave way to steady rain. Mardon skipper was not observed but is probably present within this relatively large complex of serpentine-based meadows, especially given the fact that Mardon is present in the adjacent Hunter Creek (BLM) area. **Additional survey effort should be focused in the Signal Buttes area.**

CONCLUSIONS

This study confirms the presence of Mardon skipper on Gold Beach Ranger District lands, yet much remains to be accomplished before effective conservation of the insect can occur there. Some sites have been surveyed adequately to exclude them as potential habitat for Mardon skipper. Other sites deserve further scrutiny before making a final assessment. Additional localities remain to be identified and surveyed.

Documenting Mardon skipper in southwest Oregon is proving to be a relatively difficult task. At present, the only known breeding population is at Hunter Creek ACEC (Ross 2008), but it was relatively scarce there this year (Ross 2009). All other recent records from Curry County are for individual males (Ross 2007, this study). Female behavior and resource utilization is largely unknown for south coast populations and needs further study.

Future work should continue to focus on general surveys of potential habitats while simultaneously documenting the autecology of Mardon skipper where it can be reliably observed – limited to Hunter Creek ACEC at present. Locating and conserving all serpentine-bunchgrass environments within the region that may be Mardon skipper habitat is also recommended.

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