

Report to U.S. Forest Service
Xerces Society Surveys for *Polites mardon*
in the Rogue River National Forest in
Southern Oregon (Summer 2005)



Photo by Tom Kogut, USFS, Gifford Pinchot (2005)

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Summary

This season, Mace Vaughan and Scott Hoffman Black spent a total of nine person-days in the field (June 2, June 21 and 22, July 2 and 3, and July 7 and 8, 2005) searching for new populations of the Mardon skipper (*Polites mardon*) at sites in and around the Rogue River National Forest. This field work included surveys at 41 sites, which were spread across 23 general areas that looked like promising habitat based on maps, aerial photos, and conversations with U.S. Forest Service staff (please see Appendix 1 for a table summarizing these sites).

After nine days in the field, we added four new sites to the documented distribution of Mardon skipper on U.S. Forest Service land. These sites likely constitute two new metapopulations, and move this species' range another four miles north in southern Oregon. One new population is spread along Forest Service Road 800, between the meadow at Conde Creek 4 and the Service Glade. The second new population is distributed through the Short Creek meadow complex, south of Forest Service Road 3730, approximately 1.5 miles west of highway 37. These are the only confirmed areas we know of that support *Polites mardon* on U.S. Forest Service land in the southern Oregon region.

Survey protocol

All sites were surveyed during the following environmental conditions.

Minimum temperature: Above 60 degrees Fahrenheit.

Cloud cover: Partly sunny or better. On cooler days, the sun can play a very important role in getting butterflies to take to the air. On warmer days (above 60 degrees F), direct sunlight is less important, but a significant amount of the sun's energy should be coming through the clouds to help elevate the temperature of basking butterflies.

Wind: Less than 10 MPH. On windy days, butterflies will drop out of the air if they cannot maintain their direction and/or speed of flight.

Time of day: All sites were visited between 10AM and 6PM. Success is most likely during the warmest parts of the day.

Time of year: All sites were visited between June 21 and July 9. The Mardon skipper flies in southern Oregon from mid-June and mid-July.

We followed this protocol after arriving at each potential site.

1. Approach the site and scan for any butterfly activity, as well as suitable habitat.
2. Fill out all of the site information on datasheet.
3. Give closer attention to wetter areas first. Mardon skipper seems to prefer habitat close to small streams.
4. Walk through the site slowly (about 5 minutes to walk 100 meters), look back and forth on either side, approximately 20 to 30 feet out. Do best to walk in a path such that you cover the entire site with this visual field, or at least all of the areas of apparently suitable habitat.

5. If you leave your path to look at a particular butterfly, do your best to return to where you left your path when you resume walking/searching through the site.
6. When a suspected Mardon skipper butterfly is encountered, we net the butterfly to confirm its identification. This is especially important because of its similarity to the Sonoran skipper, which likely also occurs at many sites supporting Mardon skippers. No vouchers were taken at sites.
7. Record all data for sites whether butterflies are seen or not. In this way, we document both new sites where *P. mardon* is found and, as well as our overall search effort.

New Finds

USFS Short Creek (N:42° 20.540' W:122° 23.291')

At least two streamside sites connected by dry open meadows on U.S. Forest Service land south of Forest Service road 3730, approximately 1.5 miles west of highway 37. Nine Mardon skipper were seen at site 1 on both June 22 and July 8, 2005 and an additional seven individuals were counted at site 2 on July 8, 2005.

USFS Service Glade (N:42° 18.006' W:122° 27.622') and Conde Creek 4 (N:42° 18.452' W:122° 27.582')

A series of at least two loosely connected sites along Forest Service road 800, just inside the National Forest boundary, close to BLM's Conde Meadows (approximately 3 to 4 miles north of Dead Indian Memorial Road). We counted two Mardon skipper at the Service Glade on June 21 and four Mardon skippers at Conde Creek 4 (north of Service Glade).

Sites surveyed in 2005 where no Mardon were seen, but which should be revisited in 2006

Willow Prairie

Much of this site appears too wet for Mardon skippers. However, the arm of open meadow (non-forested stringer) that extends northwest from the main body of the site has potential habitat and Scott Black may have seen one Mardon skipper there this summer (unconfirmed). It should be revisited in 2006.

Ash Swale

This site was very dry when visited on July 3, 2005, and the elevation is lower than we would expect for the Mardon skipper. However, it is worth revisiting this site earlier in the season in 2006.

Lodgepole Guard Station (west) – need to confirm exact site with aerial photos

Mace Vaughan visited this area on July 3. He is not confident that he found the meadows in question. Road to guard station was gated and the road on the west side of valley led only to old clearcuts (very poor and dry habitat from a Mardon perspective).

Conde Creek 1

This includes two open areas on either side of the road. Both of these open sites seemed to be heavily grazed and overgrown with invasive grasses. They also appeared to be relatively dry and thus inappropriate for Mardon skippers. Nevertheless, they should be rechecked in 2006.

because of their proximity to Service Glade and Conde Creek 4, as well as their loose connection with the Conde sites on BLM lands.

Conde Creek 2

This is a wet meadow on the east side of Road 800 between the Service Glade and Conde Creek 4. There are springs at this site and short grass meadows. It seems too wet for Mardon habitat, but we cannot rule it out. It certainly could be a place where Mardon stops to nectar if individuals were to fly down the Road 800 corridor.

Visited sites without Mardon that need not be revisited

Forest Service Meadow (approx. milepost 21 on Dead Indian Road, west of USFS sign)

We've visited this site too years in a row. There are some patches of habitat that look promising from a Mardon perspective. However, no Mardon skippers have been seen at this site. We don't think it is worth revisiting.

Big Elk Meadows

This is a large open meadow, most of which is far too wet for Mardon. It should be a low priority to search the entire perimeter of this meadow for drier stringers that could support appropriate habitat.

Walch's Fen

This site is far too wet and overgrown with trees to support habitat for Mardon skipper.

Beaver Dam Meadow

This site is far too wet and overgrown with shrubs to support habitat for Mardon skipper.

Road 100 (north of Dead Indian Rd.)

This small area of habitat had abundant *Plectritis* in flower, but upon closer inspection was too dry to support Mardon skipper.

Latgawa 1 and 2

These two sites were too dry to support appropriate habitat.

Dunlap Meadow 1 and 2

These are beautiful and diverse meadows with abundant butterflies. However, overall the habitat is too wet in areas or else is overgrown with tall grasses that are not used by Mardon skipper.

Whiskey Springs Campground

This site is essentially a large beaver pond and was too wet to support Mardon skipper habitat.

Crawford Meadows A, B, C, D, E and F

We have lumped several sites we visited into this a large area. Overall, Crawford Meadows was diverse and seemed to support some areas of potential habitat (i.e. diverse short grasses).

However, the site elevation seems too high for Mardon skipper, most of the uplands around the streams were too dry, and no Mardon were seen. In fact, very few butterflies were seen.

Huckleberry Viewpoint

This relatively high-elevation site did not support the appropriate grass community, nor the appropriate habitat, overall. It was very exposed to the elements and quite dry.

Huckleberry Camp A, B, and C

This was a very diverse collection of habitats strung out around Huckleberry Camp. They ranged from very dry to very wet meadows. While there was some streamside habitat that looked promising, and abundant butterflies were observed, no Mardons were seen during our surveys. Because of the high elevation of this site and its long distance from other areas of suitable habitat, we don't think it is worth revisiting this site at this time.

Ginko Creek

These sites were very wet and didn't seem to support the right plant communities for Mardon skipper. They were also very small and shaded forest openings (again, unusual for Mardon skipper habitat) and at a relatively high elevation compared to other Mardon sites.

Highway 62

From the road, this looked like potential habitat, but upon closer examination did not support the appropriate grasses or a diverse forb community.

Hershberger Mountain Complex (sites A to F)

These sites covered a range of wet to dry habitats, none of which appeared to support the appropriate plant community for Mardon skipper. High elevation, again, may have been a factor here.

Hershberger Mountain Road (6.0 miles from Highway 230)

This site looked like excellent Mardon skipper habitat. It had a diverse community of short bunch grasses, a small stream and a great diversity of butterflies. However, no Mardon skippers were seen and the elevation was relatively high. We don't think it is worth revisiting in the next field season, but it should be kept in mind as we learn more about this butterfly.

Rye Flat

This site is higher in elevation than any known Mardon skipper site. It is also too dry and does not appear to have the right mix of plants to support Mardon.

Thoughts on field work to be completed in 2006

Based on our experience in the field during this summer (2005), we believe that it would be worthwhile to complete the following fieldwork during the summer of 2006.

Revisit Willow Prairie (northwest arm)

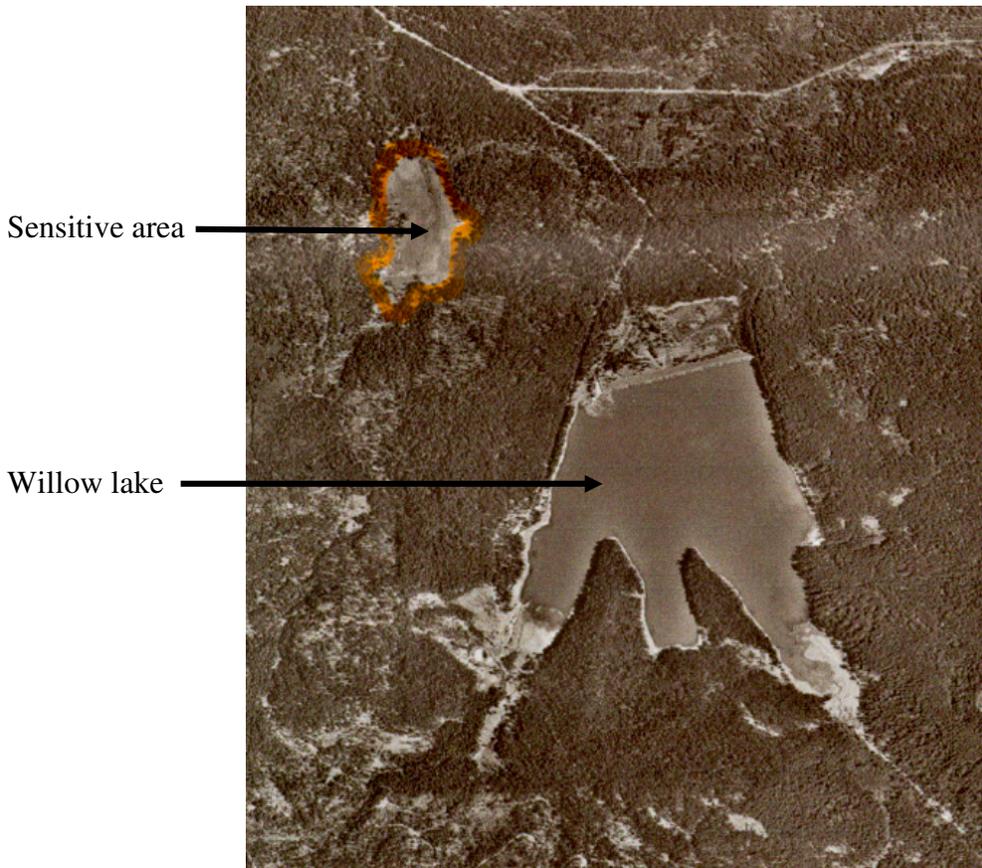
During three visits to Willow Prairie during the summer of 2005, we saw no confirmed Mardon skippers. However, at the end of our last visit, Scott Hoffman Black saw a butterfly that may

have been Mardon skipper, but he was unable to confirm the sighting. The northwest arm of this site should be a priority for visiting in the summer of 2006.

Revisit Ash Swale and also survey the “sensitive area” meadows east of Ash Swale.

We did not find Mardon skipper at Ash Swale and it seems unlikely that this butterfly would be there, based on elevation and the state of the habitat when Mace Vaughan visited the site July 3, 2005 (it was very dry and most grasses were already drying out). However, it seems worthwhile to visit this site earlier in the season to confirm.

Also, based on aerial photos, it looks like there is a meadow “sensitive area” to the east of Ash Swale (between Ash Swale and Willow Lake) that is worth exploring early in the season. A close-up aerial photo (on 8 ½ x 11 paper) with roads and ownership boundaries would be useful for returning to this area. On July 8, 2005, we tried to access this site, but encountered a locked gate. We also cannot tell how much of the site is on private lands.



Revisit Lodgepole Guard Station

The aerial photographs we had were not suitable for determining the exact location and nature of meadows around the Lodgepole Guard Station. It seems worthwhile to print a close-up

image of this area, with roads and other boundaries, and to revisit the area to confirm that there is not suitable Mardon habitat.

Revisit/visit the meadows around Conde Creek 1 and 2

It seems very plausible that many of the open meadows around Forest Service Road 800 (e.g. Conde Creek 1 and 2) could contain patches of habitat that support Mardon skipper. In addition, all meadow habitat found in this general area (e.g. between the USFS Service Glade and the Conde Meadow site on BLM land southwest of Service Glade) is worth visiting. Priorities should be given to open meadows with ephemeral or permanent streams on public lands. As an aside, the BLM has identified Westglades as a meadow site to survey for Mardon skipper. This Westglades site is approximately due west of Service Glade.

Visit Juniper Ridge

We could not get to Juniper Ridge in the summer of 2005 because of logging activity. This site also seems worth surveying for Mardon skipper, if just to confirm that the habitat is not suitable for Mardon skipper. Again, close-up aerial photos are needed (on 8 ½ x 11 paper).

Characterize Plant Communities

Having discovered Mardon skipper populations at the Short Creek Prairie complex and the Conde Road complex, it would be valuable for Forest Service botanists to characterize the plant communities in the core habitat areas at these sites on three occasions during the 2006 field season: early in the Mardon adult flight period (approx. June 10); in the middle of the Mardon flight period (approx. June 25); and at the end of the flight period (approx. July 10). It would be particularly useful to have a list of which of these plant species are in flower during each time period and to know the relative abundance of all the grasses present at each site.

Recommendations

In order to best protect the sites where the Mardon skipper occurs, we think it would be very valuable for the USFS or the BLM to complete a full life-history (autecology) study that looks closely at:

1. *How adults use these sites:* for example, where they oviposit, where they mate, where and what plants they visit to collect nectar.
2. *How larvae use these sites:* for example, where are their nests, how far do they move in a day, what are they actually feeding upon (there are a range of possibilities based on the work of Erik Runquist and others).
3. *How do they overwinter:* If we can determine how and where these butterflies spend the winter, we will be able to make much more informed decisions about the timing of site management.

Conclusion

The status of the Mardon skipper in Oregon continues to be only fair overall. We know of 23 sites within 11 complexes on BLM, Forest Service, and private lands in southern Oregon (see Appendix 2 for a complete list of sites). However, most sites contain relatively few individuals. These low numbers of skippers could have been an artifact of the one-day counts, which likely

do not give a true indication of population size. Nevertheless, more conservation attention – surveys, study, and careful site management – seems warranted to protect these butterflies at the few sites where they occur.

Acknowledgements

Thanks to Dave Clayton and Norman Barrett for pulling together maps, aerial photos and lists of potential sites, and for joining us in the field. Thanks also to Dana Ross for his information on surveys at other Mardon sites outside of the National Forest in 2005, and to Wayne Rolle for the data he collected on the plant communities at Little Hyatt Reservoir and Wildcat Glade.

Contact information for the authors

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Appendix 1: Summary of all sites and areas surveyed by the Xerces Society (Scott Hoffman Black and/or Mace Vaughan) during the 2005 field season.

SITES VISITED (TOTAL NUMBER 41; AREAS VISITED 23)				
Datasheet Number	Number of Sites	Area visited	Mardon Extant	Revisit in 2006
1	2	Conde Creek 4 and Service Glade	Y	Y
2	2	Short Creek Prairie (if we are counting this as more than one site, we need to update figures)	Y	Y
3	1	Willow Prairie	N	Y
4	1	Ash Swale	N	Y
5	1	Lodgepole Guard Station (west) – need to confirm exact site with aerial photos	N	Y
6	2	Conde Creek 1 and 2	N	Y
7	1	Forest Service Meadow (approx. milepost 21 on Dead Indian Road, west of USFS sign)	N	N
8	1	Big Elk Meadows	N	N
9	1	Walch's Fen	N	N
10	1	Beaver Dam Meadow	N	N
11	1	Road 100 (north of Dead Indian Rd.)	N	N
12	2	Latgawa 1 and 2	N	N
13	2	Dunlap Meadow 1 and 2	N	N
14	1	Whiskey Springs Campground	N	N
15	6	Crawford Meadows A, B, C, D, E and F	N	N
16	1	Huckleberry Viewpoint	N	N
17	3	Huckleberry Camp A, B, and C	N	N
18	2	Mill Creek Headwaters A and B	N	N
19	1	Ginko Creek	N	N
20	1	Highway 62	N	N
21	6	Hershberger Mountain Complex (sites A to F)	N	N
22	1	Hershberger Mountain Road (6.0 miles from highway 230)	N	N
23	1	Rye Flat	N	N
Total	41			

Appendix 2: Summary of all known Mardon skipper sites in southern Oregon after the 2005 field season and recorded days counts from these sites in 2005.

Site Name	Administrative Unit	Date - Day Counts (2005)
USFS Conde Complex		
Service Glade*	Ashland RD Rogue River/ Siskiyou NF	6/21 - 2
Conde Creek 4*	Ashland RD Rogue River/ Siskiyou NF	6/21 - 4
Short Creek Complex		
Short Creek Prairie Site 1*	Ashland RD Rogue River/ Siskiyou NF	6/22 - 9 7/8 - 9
Short Creek Prairie Site 2*	Ashland RD Rogue River/ Siskiyou NF	7/8 - 7
BLM Conde Complex		
Conde Meadow (BLM) *	Medford District BLM, Ashland RA	6/24 - 8
Indian Road Complex		
MP 20.2 Dead Indian Road	Medford District BLM, Ashland RA??	6/9 - 0 6/24 - 13
Dead Indian/Big Elk Junction*	Private	6/24 - 17
Moon Prairie Complex		
Moon Prairie Meadow (Pumpchance 128)	Medford District BLM, Ashland RA	6/24 - 46 7/5 - 27
Pumpchance 125 Meadow	Medford District BLM, Ashland RA	6/9 - 11 6/24 - 74 7/5 - 50
Wet Prairie South of Pumpchance 125*	???	6/24 - 8 7/5 - 9
Wildcat Glade Complex		
Wildcat Glade	Medford District BLM, Ashland RA	6/23 - 25
Hyatt Lake (east shore) *	Medford District BLM, Ashland RA	6/23 - 1
Buck Prairie Site		
Buck Prairie*	Medford District BLM, Ashland RA	7/6 - 4
Table Mt. Site		
Table Mountain (Burnt Creek Meadow) *	Medford District BLM, Ashland RA	6/23 - 9
Little Hyatt Reservoir Comp		
Little Hyatt Reservoir South	Medford District BLM, Ashland RA	6/23 - 28

Site Name	Administrative Unit	Date - Day Counts (2005)
Little Hyatt Reservoir North	Medford District BLM, Ashland RA	6/23 - 28
PCT Complex		
PCT Meadow South	Medford District BLM, Ashland RA	6/10 - 0 6/22 - 4
PCT Meadow North	Medford District BLM, Ashland RA	6/10 - 0 6/22 - 1
Meadow southwest of PCT Meadow South*	Medford District BLM, Ashland RA	6/10 - 1 6/22 - 1
Hobart Peak Complex		
Hobart Peak 1 (East)	Medford District BLM, Ashland RA	6/10 - 0 7/5 - 2
Hobart Peak 2 (middle)	Medford District BLM, Ashland RA	7/5 - 1
Hobart Peak 3 (West) (exclosure)	Medford District BLM, Ashland RA	6/10 - 10 7/5 - 7
Tyler Creek meadows*	Private	6/23 - 7

* Sites discovered during fieldwork in 2005.