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A Most Surprising Wisconsin Butterfly Destination: Leola Marsh

By Ann Swengel

Why look for butterflies here?

You won't confuse Leola Marsh for a natural area. In fact, you'll wonder why on earth I come here, much less recommend it to other butterfly fans. But Leola Marsh, in combination with Buena Vista Grassland a few miles to the north, is the place my husband Scott and I survey the most, year-round, for birds as well as butterflies. Both sites are old fields managed for Greater Prairie-Chickens, and are fabulous for grassland birds. Please see "The Bountiful Butterflies and Birds of Buena Vista Grassland" (2010) for good tips on finding butterflies there, including Regal Fritillary, Gray Copper, and Leonard's Skipper. Even now, I remain astonished that Leola is also an interesting destination for butterflies. It took me a long time to notice. We'd been visiting Leola for years because of the grassland birds. It was only by accident that we stumbled onto noticing Purplish Coppers here. This is the species of most note to me here.

This butterfly guide derives from the research my husband Scott Swengel and I have conducted here from 1997 to date. Our surveys, analyses, and papers using data from this site have especially focused on grassland birds. But in our research, we count all butterflies seen in our study sites, and of course we pay attention to what we see en route. So the butterfly abundances and flight periods I discuss are not idealized, but very much reflect what it's like when you can't be here every day and can't pick your weather in this state of wild climatic variation.

Looking for butterflies in Wisconsin is particularly dicey in spring, but challenging season-long. It's a rare year when my co-researcher Scott Swengel and I have a comfortable time getting all our field work in at the right timing at all the sites we want to check for their special butterflies. Many a time a perfect weather forecast from just the night before (or even that morning!) completely misportrays the dismal weather that actually happens. It helps to have some backup plans. If the weather is poor in one spot, somewhere else with tenable weather may be within reach that day. On the other hand, perfectly fine butterfly weather sometimes occurs on days with dismal forecasts—all just to keep us gambling about what might happen next! We appreciate your understanding that on our field

days, we are very busy completing formal butterfly monitoring surveys. If you see us, we greatly appreciate your understanding that we need to continue our surveys uninterrupted, as we never have enough time when the weather and timing are right!

A huge aid is this website:

<http://www.wisconsinbutterflies.org>. It's a great source for up-to-date reporting on what's being seen and detailed information on range and flight period.

About the author

A butterfly enthusiast since childhood, I became serious about them in the mid-1980s, with the encouragement of ornithologist Scott Swengel, whom I met then and married. Field partners in bird and butterfly surveys ever since, we've studied prairie butterflies in seven states, as well as Wisconsin's barrens and bog butterflies. We've published a number of peer-reviewed scientific papers on butterfly detection, habitat associations, phenology (seasonal timing) and fluctuations, and responses to site management, as well as non-technical articles. A past vice president of the North American Butterfly Association (NABA) and past co-editor of the annual 4th of July Butterfly Count report, I was also honored to serve a term on the editorial board of the *Journal of Insect Conservation*.

Acknowledgments

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Cautions

Be prepared for poison ivy, as well as other toxic plants such as wild parsnip and giant hogweed (a relative newcomer here). Even if these aren't in a particular site I'm recommending, they are a

possibility anywhere in the state you might also choose to visit. Large areas of Leola Marsh have an abundance of stinging nettles and ragweed. While mosquitoes and biting flies are a possibility about anywhere, some places and some years are particularly problematic. In spring, the mosquito season may start gradually or it may come on suddenly with full force.

Beware ticks! They come in two versions; small (wood ticks) and smaller (deer ticks). The latter have high infection rates of Lyme disease. Both kinds offer other tick-borne illnesses too. The size and color of a skin mole, ticks gradually (and utterly painlessly) bite into your skin to suck blood, especially by lurking in parts of your body you don't even know you have. If you do not arrive well apprised on how to cope with ticks, be sure to consult the website of the Wisconsin Department of Health Services for more information on ticks and tick-borne infections.

Here in Wisconsin, bright sunny heat in mid-May can resemble a desert summer day, or it may frost in late June. Dangerous thunderstorms, including tornadoes, are a distinct possibility throughout the growing season. Remember that a vehicle furnishes shelter from lightning but danger during a tornado. For the latter, seek a basement or interior of a reinforced building. We always keep an eye on the forecast and an eye on the sky, year-round.

If you are looking for butterflies along a road, even a seemingly seldom traveled unpaved road, be alert for traffic, including trucks and all-terrain vehicles.

You also need to be prepared to find a favorite spot from a previous visit noticeably different in both its appearance and its butterflies on your next visit. Management at Leola is with mowing, haying, brush-cutting, burning, and cattle-grazing. This occurs on relatively small patches, usually 20-80 acres, and in any given year, most of the areas are unmanaged. Burning occurs primarily in spring and fall, so if you visit after the plants have regrown, it may not appear to be a dramatic change. The grass may be greener and taller. While wide-ranging and immigrant butterflies like the Monarch may not show much effect, or in fact may be drawn in by the flowers, the more localized butterfly species usually recolonize more slowly (or in some cases, may not successfully recolonize).

Since this article is restricted to the timings and locations of our visits, it does not reflect some

species' overall abundances, or even all the noteworthy species present, in this region. There's a lot of room for more learning. Even the locations we've visited a lot have gaps in our seasonal coverage, plus many other sites have gotten way less attention than these, or none at all. The flight period information provided here is necessarily incomplete. But it's all collected by the same method by one research team (us) and accounts for the abundances we've observed, so I hope it gives some idea of what's possible for one group to find.

Directions

Directions and maps are easily found with an online search for Leola Marsh State Wildlife Area. The Wisconsin Department of Natural Resource's website provides detailed maps and information.

From Interstate 39 (between the cities of Portage and Stevens Point), exit west on Highway 73. As Highway 73 bends from west to northwest, turn left on County Highway D to continue proceeding westward. In 3 miles you'll see the junction with County Highway W. The largest of the tracts comprising Leola Marsh is south of Highway D and west of Highway W. All of Leola Marsh is excellent for birdwatching. But our favorite tract for butterflies is bisected by Archer Avenue. From the junction of Highways D and W, turn south on Highway W. In 2 miles, you'll see Archer Avenue on the right (west). For the first mile of Archer Avenue west of Highway W, public land is on both sides of the road.

Finding Purplish Coppers

I stumbled onto our first Purplish Copper here on August 2, 2013. I assumed the deep ditches with permanent water in them must be where the populations were centered, even though on that initial date, we found them out in the grassland, not right at any ditches. I made a mental note to follow up on this if ever there could be time to do so. On July 30, 2014, we tried the same area and didn't find any. Oh well. We resumed surveying for birds, and that's when we found a few Purplish Coppers! Obviously I didn't understand what it was that the Purplish Coppers were focusing on as habitat. This became intriguing, so we followed up in August. Through October 12, we ended up recording 578 individuals summed across all our surveys in 2014!

Since then, in some years they were rather low in number, at least when, where, and how we looked. They also can behave in ways that make them harder to track and identify. Maybe this excuses how long it took us to notice Purplish Copper here. But – so far, we’ve succeeded in finding them at all, starting in 2013, which is a big change from before. Not only that, but we’ve found the species in more than 25 “units” (40-acre squares, defined for purposes of our formal research surveying).

This account is not based on lots of years of observation. So this is just a start for learning about Purplish Coppers here. I’m working a hypothesis that consistently well-watered growing seasons are when this butterfly can breed successfully in greater numbers throughout the fields here. Smartweed occurs in pockets throughout the old fields here, especially in low lying spots. The more land area of this site is useful for successful breeding, the more coppers you can find in any given spot. Conversely, in dry seasons, this copper may be more localized to wetter spots at this site.

Location, location, location: In all years, good numbers and bad, we’ve found Archer Avenue (west of County Highway W) to be a reliable place to find any Purplish Coppers. We do walk out into the grassland and find them there, but the mowed roadsides and ditches are also good, and a lot easier to walk. Another relatively good area is around the junction of County Highway W and Apache Road. Park carefully out of the way of traffic and be a very careful pedestrian. Both north and south along the county highway as well as east along the south side of Apache Road can be useful areas to search.

Timing, timing, timing: During 2015-2017, we were able to kick off our Purplish Copper year in early June (June 2-5). We succeeded in finding them into October only in the years of high numbers (through October 12, 2014 and October 7, 2015). In the years of low abundance, we only found individuals into September (through September 14, 2016 and September 22, 2017), even though we did try on later dates in September and/or early October. But in June, July, and August, we were able to find it on most dates we’ve tried, even in low years. That is, once we had a good idea exactly where and how to look.

In 2018, our one June visit (June 3) was unsuitable weather. We didn’t try again for Purplish Copper until August. We found 4 on August 3 and 1 each on August 18, September 7 and 9, with none

on September 23. Our October visits were unsuitable for any butterfly observation (cold and cloudy).

There appears to be some evidence of 3 generations per year. In years of high numbers, the species may be findable, even if in low numbers, between each generation’s peak. In low years, the generations are more distinct, at least to us, in that we had some zeroes on dates between the broods. In 2014, we found the species continuously from July 30 to October 12, with our highest count on August 3 (229), followed by September 26 (200). In 2015, we found them continuously from June 2 to October 7, with our highest count on July 30 (88) followed by June 6 (51). We had another uptick on September 25 (30) but we had higher numbers than that on June 14 (36) and August 1 (33). In 2016 we found them from June 5 to September 14 (our peak date, with 45), but none on August 13 as well as October 8. In 2017, we found them from June 4 to September 22 but none on June 21, 23, and September 9, as well as September 30, October 15 or 20.

Other tips: This copper has a rapid flight that is often low to the ground. It’s astonishingly easy to overlook, despite its colorfulness. American Copper is possible here too, especially associated with berms that have very short turf containing sheep sorrel. But overwhelmingly, we’ve found more Purplish Coppers. American Coppers are much more inclined to shorter flights out and back in a territorial behavior. While Purplish Copper may do the same, I find it harder to track and jumpier, more inclined to flush and disappear. They nectar on several kinds of flowers, and sometimes seem to prefer small white asters.

Other notable butterflies

American Copper: We’ve only found American Copper once (June 4, 2017), out in the grassland south of Archer Avenue up on a berm in an area that had been grazed the prior year. In our experience, this species prefers drier areas with short vegetation. Meanwhile, Purplish Copper will tend to be in lower areas with smartweed. However, we have also seen Purplish Copper in the same area as this American Copper, so location is only a clue, not a clincher of the ID.

Bronze Copper: We’ve found more Bronze Coppers than American Coppers here, although never in numbers as good as Purplish Coppers in a good year. Although we’ve spotted Bronze Copper widely around in most of the tracts at Leola, by far most of our observations have been in the Archer

Avenue area (west of County Highway W), both along the roadside and out in the grassland. Our observations have run from June 14 (2015) through September 9 (2017), with most from June 14 through August 25.

Silver-bordered Fritillary: Another highlight of Leola Marsh is Silver-bordered Fritillary. We've found this species in all tracts of Leola Marsh, but again, most of our observations have been in the Archer Avenue area, both out in the grassland and along the roadsides. Our observations have run from June 2 (2015) through September 14 (2014). During 2014-2018, we found this butterfly readily findable on our visits in August through mid-September. We don't spend as much time here in butterfly weather in June and July and so can't comment as much on timing and abundance then. You should expect to find Meadow Fritillaries too.

Red Admiral: Good or bad year, Red Admiral is likely to be findable here. They just can't resist those high densities of nettles (caterpillar food plant) in vast acres here. Red Admirals can occur throughout the property here, but the core area is the large block of acreage bounded by County Highway D on the north, County Highway W on the east, and Apache Road on the south. You're likely to resist those fields of nettles, because they sting (give off a chemical when you contact them), and that chemical hurts. We can't resist those fields, though, because of the marvelous grassland bird fauna out there, so we dress accordingly – thick pants and sturdy long-sleeved shirts, regardless of the temperature. Those are the tallest nettles I've ever seen, sometimes taller than Scott (i.e., well over 6 feet tall), so even with heavy clothing on, we must guard our hands and faces, and still we get stung every so often. As far as that goes, beware the dense jungles of giant ragweed (way taller than Scott's reach with his arm outstretched overhead). August and September are prime periods for ragweed pollen, and I challenge your respiratory system NOT to react to these ragweeds. Ours sure do.

But you do not need to walk out into the nettles and ragweeds. You can observe the Red Admiral spectacle from the roadsides (carefully – park out of the way of vehicles and watch for traffic on all roads). In "good" years, we actually find more Red Admirals on the roads, especially early in the day to bask, or any time of day for mud-puddling. While our highest daily total on our

formal grassland walking surveys was over 300 (August 3, 2014), we have actually seen thousands (yes, thousands) on the dirt roads on a single day. This spectacle can get underway remarkably early in the day, earlier than we'd start our butterfly surveying, and can occur in remarkably un-butterfly weather (cool and cloudy, even drizzly), and can continue remarkably late in the day.

Our earliest date in the season was May 5 (2012, 27 individuals on our formal grassland surveying) and latest date was November 5 (2016, 1 individual). Red Admiral is possible on any date during that long season, but it's still possible to observe "surges" in numbers as the primary timing of each generation's emergence proceeds. Besides the early to mid-May kickoff to the season, the primary timing for good numbers is late June (e.g., June 21, 2017, with 68 individuals) into early July (that's when the occasional thousands on the roads occurred). A secondary surge can occur in August. Examples in our experience include August 3 and 14, 2014; August 5, 2016; and August 18, 2017.

Monarch: Just like Buena Vista Grassland, Leola can also be a Monarch factory. And just like Red Admirals, Monarchs can be active in remarkably un-butterfly weather (cool, cloudy, even drizzly), and they also can be active relatively early and late in the day. So if you show up hoping for Leola specialties, but the weather doesn't live up to the forecast, there's still a chance you can enjoy some butterflies.

Other notes: Late in the season, we've also sometimes seen the highest numbers and concentrations of woolly bear caterpillars we've observed anywhere. Unfortunately, they have a predilection to bask and disperse on the paved roads, and most drivers appear less concerned about the welfare of woolly bears than we are.

We continue to watch for Regal Fritillary, but so far have not seen one here, despite being near a population just to the north at Buena Vista Grassland. The state has acquired some additional tracts at Leola since we started visiting here. Perhaps if more tracts can be acquired between the two properties, Regals might someday colonize Leola Marsh

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