

Update on Finding Frosted Elfins in Jackson County, Wisconsin

by Ann Swengel, 2020

This is an update to “The Beguiling Butterflies of the Jackson County Pine-Oak Barrens” published in 2009, by Ann Swengel.

Pipeline Development

Since that article came out, an underground gas pipeline was installed right through prime habitat in Jackson County for Frosted Elfin (state listed as threatened). Any Frosted Elfin habitat in Wisconsin is also habitat for ‘Karner’ Melissa Blue (federally listed as endangered). Frosted Elfin is more restricted in range and lower in abundance than Karners in Wisconsin.

The Wisconsin Department of Natural Resources (WDNR) implemented many measures to mitigate the effects of the pipeline. First, they required the placement of the pipeline along existing rights-of-way (roads and ATV trails) as much as possible.

Second, they required wild (native) lupines to be planted in places with appropriate soil and topography. This is the only known caterpillar food plant for both Frosted Elfin and Karners in Wisconsin.

Third, they tried to locate the pipeline right-of-way on the south side of road (and north side of forest bordering such a road) instead of the north side of the road (and south of any woods fronting the road). This is useful for Karners by providing more variability

in shade. This is essential for Frosted Elfin because in Wisconsin it is limited to lupine patches that have at least some partial shade in them. It is extremely rare to find a Frosted Elfin way out in wide open lupine patches that get full sun. The very few times we have, this habitat was contiguous with abundant lupine in the preferred setting of partial shade. Frosted may like partial shade because they seem to feed primarily on lupine flower parts, starting from when these are green buds. Partial shade extends the season that this food resource is available.

Fourth, WDNR implemented measures to reduce damage to the habitat by the heavy machinery, outside of the pipeline route itself and designated

road accesses. In some locations, the topography was also particularly beneficial for discouraging ATV drivers to go into the pipeline ROW.

As of our 2019 field season (the most recent as of this writing), how did this work out for Frosted Elfins?

Stanton Creek Road

The “main site” described in the original butterfly finding guide is 0.25 to 0.5 miles east of Hunter Haven Road. But the entire area from Hunter Haven east along Stanton Creek Road to and beyond the “main site” for another 0.5 miles is also good. This area has had a wonderful revival of Frosted Elfin detectability. The conservation measures implemented by the Wisconsin Department of Natural Resources were particularly effective here.

The pipeline runs along the south side of the road, with lupines establishing well from the plantings. Mature forest borders to the south, providing the partial shade required by Frosted Elfin.

But additional measures also helped. A strip of existing oak shrubs was allowed to be retained between the road right-of-way (which has abundant lupine) and the pipeline right-of-way. This has enhanced the habitat quality for that roadside right-

of-way on the south side of the road. How did this oak strip survive the heavy machinery? The WDNR put up signs directing where machines shouldn’t go, and where they should. But more effectively, they also put up temporary orange-web plastic fencing that was several feet tall. This was strung around all sides of the oak strip. Even though the machinery could have bulldozed through this fence, the message was clear and fully honored by the construction crew.

We have been finding Frosted on both sides of the road in the roadside lupines as well as in the planted lupines in the pipeline right-of-way. We last saw



Frosted Elfin. ©Southern Wisconsin Butterfly Association.

Frosted here in 2019. The Karners have had a large uptick in numbers too.

It is possible to approach this site from the east, by turning west onto Stanton Creek Road from North Settlement Road. However, that stretch of Stanton Creek Road is often very rough and rutted, not suitable for passenger cars. We usually approach from the west. At Millston, go west on Highway 12 (toward Black River Falls). Turn north onto Lambert Road, which will take you under the interstate. Lambert Road then turns right (east) to follow along the north side of the interstate. When Lambert Road turns north, it becomes Hunter Haven Road. At the top of the hill, watch for Stanton Creek Road to the east (right).

South Brockway ATV Trail

The pipeline installation didn't work out as well here. There was more scraping of the existing lupines, reducing the quality of that habitat. The pipeline right-of-way, on the south side of the road, hasn't had the lupines take as well as in many other places. We did not find Frosted here in 2019; we last found it here in 2016, which was since the pipeline was installed.

South Brockway Motorcycle Trail

The forest here has grown up a lot. The disused motorcycle trail is hard to find. It would be easy to get disoriented and lost here. I advise against going here. But we have continued to find Frosted Elfin here, last in 2019.

Bauer-Brockway Barrens

This fabulous area beloved by butterflyers was entirely unaffected by the pipeline project. Since my original article, WDNR has acquired some additional parcels in this barrens complex.

The tract on the south side of Bauer Road from 0.25 to 0.5 miles west of Brockway Road is now public access. This is in addition to the public land owned by Jackson County Forest to the east of that tract (called Brockway in my original article) and the 40-acre opening owned by WDNR to the west of that tract (called Bauer cut in that article). There is a

public parking area on the south side of Bauer Road at 0.5 miles west of Brockway Road.

Likewise, WDNR acquired the tract west of South Brockway. In other words, that new tract is 0.25 to 0.5 miles west of Brockway Road and 0.25 to 0.5 miles south of Bauer Road. Both of these new acquisitions are excellent additions. The prized butterflies that Bauer-Brockway Barrens is known for, including Frosted Elfin, are found in them. New logging occurred on Jackson County Forest land here in 2019. When you park at the access to the South Brockway site (on the west side of Brockway Road about 0.5 miles south of Bauer Road), you will find newly logged areas west and south of this parking area.

Another location of merit is on Jackson County Forest land north of Bauer Road about 0.45 miles west of Brockway Road. There is a sign here identifying this barrens project area. It is surrounded by a relatively open (unforested) barrens area. Lupines are sparse here, and thus, it is not a Frosted Elfin location. But it's outstanding for Hoary Elfin. You can park at the parking area on the south side of Bauer Road at 0.5 miles west of Bauer Road.

Additional sites

Hunter Haven ATV Trail

From the junction of Hunter Haven Road and Stanton Creek Road, continue north on Hunter Haven Road about 0.6 miles. Be careful. Just north of this intersection, an ATV trail comes in from the east and follows the road north until about the 0.6 mile mark. At that spot, a dirt forestry road goes west and the ATV trail goes northwest. Find a safe place to park out of the way of ATVs and any possible traffic on Hunter Haven Road. Then follow the ATV trail to the northwest (not the sand road going west steeply up the hill). The underground pipeline runs parallel along the west (left) side of the ATV trail. There's a sort of rim between the trail and pipeline right-of-way, which is useful for keeping vehicles off the right-of-way. Lupines seeded into this right-of-way established well. As the ATV trail proceeds northwest and then west, this right-of-way is located well to get some shade

from the forest bordering it. We've typically had to make it up the hill a ways, sometimes to the highest point, before we've found a Frosted Elfin. But we've repeatedly found them in this right-of-way, last in 2019.

Hunter Haven Road north of Stanton Creek Road is unpaved and rough, not always passable in wet weather. But it does go through all the way north to Castle Mound Road.

You can also walk west on the forest road, but I advise against it unless you're very familiar with orienteering and back country safety. It's a longer walk until you reach any place where we've found any Frosted Elfins. This area contains an extensive complex of forest roads. You can keep walking for miles. Be careful. It's easy to get lost. It's also easy to be far from your vehicle when bad weather overtakes you.

West Bauer ATV crossing, south to Silver Mound

Just over a mile west on Bauer Road from its junction with Brockway Road, an ATV trail crosses Bauer Road. To the south, between Bauer and Castle Mound Roads, we'd found Frosted Elfin back in the 1990s. The underground pipeline borders the west side of the ATV trail and is bounded on the west by forest. Lupines seeded into this right-of-way established well, and we found Frosted Elfin here in 2019.

This also illustrates that there is a lot of room for more exploration along this pipeline right-of-way, as well as Black River State Forest and Jackson County Forest. Perhaps you will find another place where Frosted Elfin is thriving.

Castle Mound

My original article identified two sites here: the savanna and the oak forest opening. Both sites have continued to grow into taller forest, although logging did occur adjacent to the savanna area on its northeast and east sides. The last time we found Frosted Elfin in the savanna was in 2012 and in 2000 for the opening. We also have not found Frosted Elfin anywhere in this vicinity since then.

Wildcat Road

My original article identified two sites here: the southeast quadrant and the northeast quadrant. The last time we found Frosted Elfin in either site was in 1998. We also have not found this species anywhere in this vicinity since then.

Other updates

I developed a "Date calculator for Frosted Elfin in Wisconsin". It is posted on my account at ResearchGate. You may find it on the Internet by using the search term "Ann Swengel date calculator for Frosted Elfin".

This date calculator contains a table of flight period data for all five species of elfins and the spring generation of 'Karner' Melissa Blue. It covers 1994-2016. Another part of this spreadsheet allows you to input a first observed date, peak date, or last date observed for one elfin species and use that to predict a flight period date for another species. I've been using this ever since to help predict when to expect the start, peak, and end of Frosted Elfin flight period. It has worked better than my offhand predictions, even with all my decades of experience. For example, I had thought of Frosted Elfin peak flight as being right around first spring Karner date. But Frosted Elfins actually peak a few days before that, or it's best to aim for a few days before that (allowing for how weather might not cooperate on a specific date). Since my last article, I also got to experience two very warm springs: 2010 and 2012. From this, I learned that the earlier the flight period, the longer the flight period, and the lengthening primarily occurs in the lead-up to peak. That is, the start of the flight period varies much more than the end of the flight period.

Acknowledgments

Many professionals and amateurs have worked hard for many years to learn about Frosted Elfins and help them do as well as they have in Wisconsin. I greatly appreciate that. The Southern Wisconsin Butterfly Association is a chapter of the North American Butterfly Association. For information about SWBA, including upcoming field trips and meetings, please visit this website:

<http://www.naba.org/chapters/nabawba>

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