The Lonely Satyr

For Butterfly Enthusiasts of Northeast Indiana

June 1, 2023

Conservation and Propagation of an Endangered Species

by Tyler Allyn-White, Research Biologist, Michigan Butterfly Network, Kalamazoo Nature Center

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The critically endangered Mitchell's satyr butterfly (MSB) (Neonympha mitchelli mitchelli) is one of the world's rarest butterflies, and currently faces the risk of extinction in the near future. Historically, at least thirty known populations existed across Michigan, Indiana, Ohio, New Jersey, and possibly Maryland. Now however, this butterfly exists in only nine locations in Michigan and one in Indiana, along with recently discovered populations in Virginia, Mississippi, and Alabama.

One of the main factors driving this decline is habitat loss and modification. MSB occupy a rare type of wetland known as a prairie-fen. Fens are sedge and grass-dominated wetlands that sit on top of limestone deposits which add calcium and magnesium to its constant flow of groundwater from springs and seeps.

Tussock sedge (*Carex stricta*), one of the MSB's host plants is often the dominant ground cover in fens where MSB occur. Loss of suitable prairie-fen due to hydrological alteration, invasion by exotic plant species, and the disruption of natural processes (e.g. wildfires, flooding due to beavers, etc.) that historically maintained MSB habitat have collectively driven the decline of this species.

Ex situ propagation, or captive rearing, aims to collect eggs from wild-caught adults and raise them in a controlled environment to ultimately release back to the wild as adults. Establishing successful captive rearing programs to supplement and stabilize declining populations is a priority action identified in the United States Fish & Wildlife Service's (USFWS) Recovery Plan for MSB.



Above: Mitchell's Satyr Photo credit: Dave Powell (vireos.com) Sarrett Nature Center, Berrien Co., MI July 10, 2001



Above: Mitchell's Satyr
Photo credit: Larry West
Michigan Natural Features Inventory

Endangered Species cont'd.

The Kalamazoo Nature Center is one of only two organizations in the world with a permit to capture and propagate this species. Since 2016, KNC has been conducting experiments to develop successful captive rearing methods for MSB with a focus on the effects of photoperiod, relative humidity, temperature, and host plant preference on caterpillar development.

KNC has recently entered a collaborative partnership with the John Ball Zoo and the Haddad Lab at Michigan State University who will begin rearing MSB during the summer of 2023. The Haddad lab has been working with the St. Francis Satyr (Neonympha mitchelli francisci), a closely related subspecies, for over twenty years in North Carolina. They have now been successfully rearing the critically endangered poweshiek skipperling (Oarisma poweshiek) in collaboration with the John Ball Zoo since 2021. The poweshiek skipperling, another federally endangered prairie fen specialist butterfly, faces an even greater risk of extinction than MSB.



Poweshiek Skipperling Photo credit: Vince Cavalieri, USFWS https://www.fws.gov/media/189811

The captive population held at John Ball Zoo exists as an insurance population for this species as there are estimated to be less than a few hundred wild individuals left in the world. Together, our facilities are combining our knowledge and experience surrounding the captive rearing of imperiled butterfly species to improve husbandry methods for MSB and aid the collective efforts to thwart the extinction of this species. If you want to learn more about the conservation efforts backing the poweshiek skipperling, watch the incredible video, "Life on the Brink" from the Michigan Nature Association. Tyler Allyn-White

The video Tyler mentioned can be found at: Michigan Nature Association YouTube "Michigan Nature Presents: Life on the Brink-Poweshiek Skipperling." I thought it was a great way to spend eight minutes of my day.

https://www.youtube.com/watch?v=vdJDe3bA7j8

In case you are wondering....Poweshiek is pronounced pow-uh-sheek. In hearing the term "insurance population" for the first time, I really had to sit back, take a breath, and mentally absorb what that means. Our work as a community to count, care for, and protect our butterfly neighbors grows more important every day. ~Leslie A.

Spring Sightings





5/22/23

Steve also reports for May: Red Admiral—Edna W. Spurgeon Woodland Reserve, Ligonier, IN

Cabbage White, Red Admiral, Pearl Crescent, Silver-spotted Skipper– Kendallville area, IN



Above: Eastern Tailed-Blue Photo credit: John Brittenham Dekalb Co., IN 5/19/23



Below: Red Admiral Photo credit: Emily Wolfe LaGrange Co., IN 5/30/23





Photo credit: Ronda Spink
Allegan State Game Area, MI
5/23/23

Ronda added this photo "shows the two distinct spots on the underside of the leading edge of the hindwing. These two spots are what distinguish them from other Duskywings you will see."

Spring Sightings cont'd.



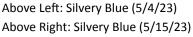


Photo credit: Doug Selzer

LaGrange Co., IN



Above: Common Roadside Skipper Photo credit: Doug Selzer

Pigeon River FWA, Steuben Co., IN

5/16/23





Above: American Snout? Photo credit: Leslie Arnold LaGrange Co., IN 5/21/23

I ran out of room for all of the amazing photos sent in, so the July newsletter will be stuffed!

Thanks and keep sending them!

It should also be noted that I crop photos to make the butterflies as big as possible for ID purposes. But, this takes away from the artistic touch. The photos you send in are beautiful!

~Leslie

Spring Sightings cont'd.



Above: Spring Azure Photo credit: Doug Selzer Pigeon River FWA, Steuben Co., IN 4/14/23



Above: Eastern Tiger Swallowtail
Photo credit: Emily Wolfe
LaGrange Co., IN
5/30/23





Above: Karner Blue Left: American Copper Photo credit: Ronda Spink Allegan State Game Area, MI 5/23/23

Community Calendar

Contact the event host prior to traveling to make sure it's not cancelled.

Outdoor Training for Know Your Butterflies

Saturday, June 3, 1:00 - 4:00 p.m.

Pine Knob Park, 2835 E SR 120, Howe, IN

This walk is for participants who attended the April 27 monitor training at Maple Wood Nature Center. RSVP to John Brittenham at johnbrittenham@gmail.com

Wawasee Lake Talk and Eat

Wawasee Area Conservatory Foundation

Saturday, June 3, 9:00 a.m.

Ruddell Pavilion, WACF, 11586 N. SR 13, Syracuse, IN

Riverview Native Nursery will talk about using native plants in an established landscape. Enjoy breakfast and buy native plants.

Nature on the Go at the River Ramble: Pollinator Powers!

Friday, June 9, 1:00 - 2:30 p.m.

St. Patrick's County Park, 50651 Laurel Rd., South Bend, IN

Nature-themed program at the outdoor play park River Ramble. Geared for families and includes a nature-themed craft. Free with gate entry fee. Call 574-654-3155 for more information.

Prairie Ecosystem, Wild Flowers

Thursday, June 22, 3:00-4:00 p.m.

Metea County Park, 8401 Union Chapel Rd., Fort Wayne, IN Learn how the prairie ecosystem works and how to identify some June prairie wildflowers. RSVP by 6/13, to Ron with Allen County Parks at 260-449-3778.

Pollinator Weekend

Friday, June 23 & Saturday, 24

Summit Lake State Park, New Castle, IN

Pollinatorpalooza

Saturday, June 24

Prophetstown State Park, West Lafayette, IN

Pollinator workshops, activities, guided walks for all ages

(No endorsement or discrimination of specific events or vendors on this community calendar is intended or implied.)

Butterfly House Openings

Sarett Nature Center

2300 Benton Center Rd.

Benton Harbor, MI 49022

Hours: Tuesday—Sunday, Memorial Day through

Sept. 30, or as butterflies persist Member fee: Adults \$5, Children \$3 Non-member fee: Adults \$8, Children \$4

Color in Motion

Foellinger-Freimann Botanical Conservatory 1100 South Calhoun St., Fort Wayne, IN 46802

Hours: Now—June 25 Adults \$7, Children \$5

Call 260-427-6440 for more information.

Additional Sightings Reported:

Amy Oberlin

Red Admiral-Pleasant Lake area, Steuben Co., IN on 5/14/23

Leslie Arnold

Eastern Tiger Swallowtail-David Rogers Park, LaGrange Co., IN on 5/17/23

Janel Rogers

Eastern Comma-West Lafayette, IN on 5/19/23

If you'd like your event information to be in July's newsletter, please turn it in by June 23. Local sightings are my favorite part of the newsletter, so please report what you're seeing. Don't be shy!

To subscribe and submit, contact:

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