

THIS ISSUE

Crane Fest, October 9-10

Thank you, Donors

U.P. Fall Birding, October 19-20

Visit Us by Appointment

Extinction is a Political Choice



A pair of Carolina Ground Crickets. Female on left.

**Our Ground Cricket
“Network”**

The Carolina Ground Cricket is the most abundant orthopteran species in our area.

I didn't read this is any entomological publication. Rather, our experience with them, as well as with other members of the insect order, Orthoptera – grasshopper and cricket species – leaves no doubt. Here's why.

Orthopterans around us are far more diverse than most of us can be bothered to acknowledge. This, despite the fact that males within two prevalent families – crickets (Gryllidae) and long-horned grasshoppers, aka katydids (Tettigoniidae) – are currently “singing” or stridulating their brains out, day and night... as long as the temperature allows, that is.

Each species can be identified by the unique sound generated by the male through wing-rubbing or stridulation, yet, most of these sounds are subverted to white noise in our consciousness; mere background, easily ignored as we wend about our anthropocentric ways.

Individuals that have survived this late in the season are focused on the increasingly iffy goal of mating and depositing eggs, the only stage of the life cycle in which most of these species can survive the winter. The nutritional integrity of their leafy sustenance wanes in lockstep with the autumnal sun's light, and their ability to even function gets put on hold through any chilly stretch of hours or days. Come October, the killing frosts loom closer with the tick of each calendar day.

In Nature Discovery's world there is reason to pay attention to orthopterans, as well as to other insects, more than your average person. We teach in an array of venues about all things wild within our state. Thus, appropriately, since insects comprise around half of the Animal Kingdom, we capture insect species regularly to show to audiences while discussing their identification, habitats and ecologies.

A more utilitarian focus exists, though. We are currently maintaining twenty-eight individuals of twelve species of Michigan frogs that need protein mostly in the form of insects to stay alive. Granted, we could, and occasionally do, stop at a pet store to purchase factory-raised crickets, but when available we'd rather



A ground cricket dropped in the tank is a split second away from being devoured by a young Mink Frog.

grassy area, and 3) *if* we are adept enough to capture a significant volume of crickets in a relatively short period of time.

just capture wild invertebrate items to feed. From mid-summer through early fall the sheer abundance of mature orthopterans easily fills the bill of fare. However, many dozens of these live items per day are required to keep the menagerie fat and hoppy.

The cliché about time being money begs the question... For the money saved in bypassing a cricket purchase, can we justify the time spent to search for and capture enough hoppers to feed them? That's a definite affirmative, but a qualified one that hinges on a number of *ifs*: 1) *if* the weather is warm and dry enough; 2) *if* we can find an especially convenient and dense population in a local

- 1) Cold and heavy precipitation limit grasshopper and cricket activity, and therefore, catchability. When cooled to a state of inertia they will perch in hidden places within overgrown grasses and ground foliage. Two weeks ago a stretch of consecutive rainy days made insect collection a near impossibility, and therefore, instigated a trip to the pet store.
- 2) Some of our most abundant species of crickets and grasshoppers are denizens of overgrown field habitat. The dense mix of grasses and herbaceous plants bathed in sunshine offers unlimited hiding places among the tangled thatch near the ground. It's a perfect environment for breeding, feeding, warming themselves in the sun and, yes, hiding when pursued. However, in locations where a stretch of mowed, chemically-untreated lawn abuts this overgrowth, crickets and grasshoppers spill onto the shorn vegetation, in some locations in dizzying numbers. They can still feed and bask in the sunshine, but hiding places are greatly diminished. We have found that this juxtaposition of short next to long grass - an easily located configuration in most parks and rural settings - offers outstanding opportunity to capture large numbers of one particular species - the small Carolina Ground Cricket - in a relatively short time frame, that is, *if* you have the proper tools and techniques...



In the yard Carol wields the insect net to secure a ground cricket using a technique that we term "step-netting."

- 3) While many may perceive an insect net as a child's toy, for us it an indispensable tool in feeding our amphibians, and we use them to this end nearly every day between May and October.

On a typical summer day Carol will walk the perimeter of our lawn then head down the trail with the net set in fluid motion according to its purpose, not unlike that of a musical instrument... A fly alights on the surface of a trailside leaf. A flick of the wrist and it suddenly finds itself haplessly buzzing at the bottom of the net. Fifteen minutes later she returns to the tanks of hungry amphibians, within the net a combined flurry of dozens of varied flies, moths, dragonflies, grasshoppers and crickets. How did she do it? Repetition of any activity generates ease and adeptness, and she's been at it "professionally" for years.

Whether within our lawn or another that is situated alongside overgrowth, the Carolina Ground Cricket is, hands down, the most common insect to collect. In fact, the combined capture of the next three most common orthopterans in this habitat – the Red-legged Grasshopper, the Common Meadow Katydid, and the familiar, large black Field Cricket – comprises only a few percent of the net’s contents. On a warm day, the thin, trilling chirps from many scattered ground cricket males overlap one another to create an almost ethereal background noise that easily escape’s one’s consciousness (<https://songsfinsects.com/crickets/carolina-ground-cricket>).



A female Common Meadow Katydid.



The chemically-untreated lawn out our back door is a steady and reliable source for ground crickets. However, I’ve found several convenient locations where ground cricket density is especially high. On Fridays I stop at Legg Park off Van Atta Road in Okemos to eat lunch, then take a short “walk” across the lawn next to the park’s entry drive - amid dozens of fits and starts - to secure a day’s worth of ground crickets. On Thursdays after my teaching day at Stepping Stones Montessori in East Lansing I can collect another day’s worth of ground crickets in short order in the grass directly behind the school. On Mondays amid my teaching day at Montessori Children’s House in Lansing, I step across the

street to the grassy expanse of St. Joseph Park where ground crickets are as densely populated as I’ve ever seen. Each step in the grass sets one cricket, if not three or four, in motion. I make a game out of the process by noting my start time, then seeing how long it takes to collect a hundred individuals in the net. This Monday I set a new record of fourteen minutes. Now *that’s* efficient cricket collecting!

Given the sheer number of crickets we collect from these locations on a weekly basis, one may rightfully wonder whether this kind of predatory pressure begins to noticeably diminish the populations. Not that we can tell. Despite having captured many thousands of ground crickets over many weeks in these exact same locations, quite remarkably we continue to reach our quota with the same ease and efficiency with every foray. Imagine the actual number of ground crickets per acre that must exist at a place like St. Joseph Park to allow for such intensive regular harvests, yet, with no noticeable dent in their numbers.

Each acre of old field overgrowth around our neighborhoods (as well as many chemically-untreated lawns) when bathed in early autumn sunshine is a dynamic goldmine of interconnected plant and animal life that is quite easy to see and to hear. It only requires acknowledgement. Take a net, a jar, a camera, and a child if you have one, then enjoy the discovery, but better hurry. Frosty weather on the horizon will drive many of the pieces within this natural community to months-long dormancy.

Teachers and parents, do you know of a location nearby where overgrowth meets untreated lawn? If so, it is easy to capture eight or ten ground crickets. In the home or classroom these can be placed in a small plastic cage filled with various freshly-pulled weeds and green grasses. The thin trills generated by the males will fill the room.



Mowed grass next to overgrowth at Legg Park.

-Jim McGrath



Visit Us at Crane Fest, Saturday or Sunday, October 9-10

Visit Nature Discovery's interactive exhibit of live Michigan-native reptiles and amphibians at Crane Fest, Saturday or Sunday October 9 & 10. Also crane-viewing, guided walks, nature artists, vendors and more. The event takes place each day from 12-7pm at the Kiwanis Youth Conservation Area near Bellevue. Parking fee is \$7/vehicle. For more information visit <https://www.michiganaudubon.org/calendar/cranefest-xxvi-2021-with-the-kiwanis-club-of-battle-creek/2021-10-10/>

*A heartfelt thank you to our many supporters,
including these donors over the past month...*

Claud Agnello

Anonymous

Kathy & Jim Bricker

Eric Petrie

Chantal Tetreault

*The increasingly uncommon, northerly-breeding
Rusty Blackbird is a regular fall migrant at
Whitefish Point.*



Nature Discovery

5900 N. Williamston Road
517.655.5349

naturedisc87@gmail.com

Williamston, MI 48895

www.naturediscovery.net



Fall Birding @ Whitefish Point & Straits of Mackinaw

Tuesday-Wednesday,
October 19-20

Juvenile Golden Eagle. Photo © Greg Smith.

Depart Tuesday, 7am. Return Wednesday, @ 6pm. Join an intimate group of only five adult participants on a guided trip to Whitefish Point, including a number of stops in transit. The fact that the peninsula juts into the southeast shore of Lake Superior makes it a perfect gathering point for migrants, large and small. We'll join professional hawk-counters and waterfowl counters at designated stations and visit other locations on the point. Weather-permitting after dark we will visit the owl station where owls are captured in mist nets, data collected, then released. Early Sunday morning we will walk quietly among the jack pines off the point's Vermilion Road for a chance to see the elusive Spruce Grouse.

On our way to/from the point we will stop at Point LaBarbe, located on the northeast tip of Lake Michigan and in the shadow of Mackinac Bridge. Here we will join Mackinaw Straits Raptor Watch counters identifying a variety of hawks and eagles passing overhead. Late October is the peak fall Golden Eagle migration window!

Weather-permitting, we should tally up to 50 species. Much of the birding through the trip is in or near the vehicle with a few relatively short hikes.

COST: Only \$275/person, includes all transportation, lodging at Curley's Motel & Cottages on the Lake Superior shoreline, pasta dinner and breakfast. Meet at Nature Discovery. Enrollment is limited so contact us soon to register. (In case of an inclement weather forecast the trip may be postponed and rescheduled for Tu-Wed, Oct 26-27.)





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Williamston, MI 48895

naturedisc87@gmail.com

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Visit Our Nature Center by Appointment

**Suggested Minimum
Donation: \$5/person/hr**



The sky's the limit for natural science learning here – with a Michigan twist! Adults, couples and families are welcome to schedule a safe, intimate outdoor or indoor visit to what we call “The Biggest Little Nature Center in Michigan,” and “Home to the Largest Zoo of Michigan-native Reptiles and Amphibians.” Weather-permitting, we will bring snakes, turtles, frogs and salamanders outdoors to interact with visitors. We ask that you wear a mask during indoor visits.

Identify and feed “the grand slam of Michigan turtles” - all ten species native to our state! Meet, pet and feed “Milberta”, our always hungry Red-footed tortoise.



Handle any or all of Michigan's three species of garter snakes while learning how to tell them apart, then watch them gobble up worms and live frogs. Hold or “wear” a gentle 6-foot Black Rat Snake – the largest in the state!

Many more snakes, turtles, frogs and salamanders to identify and feed. Take a guided walk on our trails to identify birds, bugs, trees, vines, and invasive plants as we encounter them.

Ask us about...

- ... field trips for academic classes, pre-K thru college.
- ... weekly or biweekly drop-off visits with experiential activities for your elementary thru high school student(s).
- ... volunteer opportunities for high school students and adults.
- ... arranging a guided interpretive experience at a local natural area of your or our choosing for your small group of students, adults or families.

“Extinction Is a Political Choice”

-Australian senator, Janet Rice

“Extinction is not inevitable. It is a political choice. Saving species isn’t rocket science. As a country we need to stand up and say we aren’t going to lose any more species to extinction,” said Tierra Curry, a senior scientist at the Center for Biological Diversity.

<https://biologicaldiversity.org/w/news/press-releases/23-species-from-19-states-lost-to-extinction-2021-09-29/>

Founding Director of Arizona State University’s Center for Biodiversity Outcomes, Leah Gerber, states that the Endangered Species Act isn’t broken. It’s starving,” in *Gone for Good: How a Species is Declared Extinct*, an NPR podcast of the program, *IA*, first aired on October 4.

<https://www.npr.org/podcasts/510316/1a>

https://www.nytimes.com/2021/09/29/climate/biden-birds-protection.html?campaign_id=54&emc=edit_clim_20211006&instance_id=42176&nl=climate-fwd%3A®i_id=97652655&segment_id=70818&te=1&user_id=e2b8dd8c9b543fb8c35d5dd30658067e

-JM

The next generation would be justified in looking back at us and asking, “What were you thinking? Couldn’t you hear what the scientists were saying? Couldn’t you hear what Mother Nature was screaming at you?” -Al Gore

I don’t want you to be hopeful. I want you to panic. I want you to feel the fear I feel every day. I want you to act. I want you to act like you would in a crisis. I want you to act like your house is on fire, because it is. - Greta Thunberg

Scientific findings should never be distorted or influenced by political considerations.

- from President Biden’s Memorandum on Restoring Trust in Government through Scientific Integrity and Evidence-Based Policymaking.



Less Beef = Less CO₂
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NATURE DISCOVERY 5900 N. Williamston Road Williamston, MI 48895

(517) 655-5349 naturedisc87@gmail.com www.naturediscovery.net