Newsletter of the Michigan Entomological Society

Vol. 64, No. 1 **April 2020**

MES Website: http://michentsoc.org Facebook: https://www.facebook.com/michentsoc/

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Upcoming MES Events

66th Annual MES Meeting
June 6, 2020, ONLINE!

As previously announced, concerns over the coronavirus pandemic caused the MES board to cancel the annual meeting that was scheduled to be held at Michigan State University on June 5-7.

It has now been decided to hold our annual meeting as an online meeting on Saturday, June 6. We will use an online video conference service called Zoom (see https://zoom.us/) that you can download and use for no cost. When we get closer to the meeting date the specifics of how to link into the meeting will be announced.

Since there will be no need to travel, reserve rooms or provide meals, this will be the most economical MES annual meeting ever. I strongly encourage you to participate, perhaps this could also be one of our best-attended meetings as well! If you are not already familiar with Zoom, I suggest you download it soon and learn about its use and features well before the meeting.

CALL FOR PAPERS

If you are interested in speaking at the MES annual meeting, please send your presentation title and presenter name(s) to Duke Elsner at elsner@msu.edu or mail it to 8083 Barney Road, Traverse City, MI 49684. Deadline for submitting titles is **May 18**. As usual, there will be a student paper competition.

CALL FOR NOMINATIONS

It is time again for MES elections. Nominees are needed for president and two at-large board members. MES elections are normally conducted prior to the annual meeting so that new officers can be installed as part of the meeting agenda. The constitution states that members shall have 30 days to vote, which means ballots will need to be distributed by May 5. That means nominees need to be found in the next couple of weeks. If you are interested in running, or you have a suggestion for a good candidate, contact Adrienne at amobrien@umich.edu as soon as possible.

Abstracts from the 65th Annual Meeting of the Michigan Entomological Society (part two)

The 2019 annual meeting was held on June 21-22-23 at the Rockwell Lake Lodge in Luther, MI. Here are some more abstracts from the speakers.

Conserving wild bees (& other important insects) through collections and collecting

Erika M. Tucker, Ph.D., Plenary Speaker

Insect Collection Manager & Assistant Research Scientist, University of Michigan
emtucker@umich.edu

Reports on global and localized insect declines have started to become more and more commonplace. But how do scientist actually acquire the data necessary to support these reports? These scientific reports are only possible due to massive efforts of entomological collectors and museums over the decades.

While it may seem counter intuitive to kill the things we love and want to conserve, the only way to tell if a taxonomic group is in decline, or not, is to have previously collected, preserved, and documented specimens over long periods of time to compare to contemporarily collected/or observed specimens. Our ability to make conservation recommendations, policies, and laws to protect insects depends on entomologists continued efforts to collect and identify specimens. These specimens then need to be housed in a safe place and made accessible to other researchers.

One such safe place to house specimens that we've worked so hard to collect and identify is at the University of Michigan, Museum of Zoology Insect Collection (UMMZI) in Ann Arbor, Michigan. The UMMZI currently holds an estimated 4.5 million prepared specimens from around the world. The UMMZI has recently acquired a new collection manager, Dr. Erika Tucker. Efforts to grow the collection, particularly in the Hymenoptera and Orthoptera taxonomic groups, as well as provide educational opportunities, are well underway. Surveys across all Hymenoptera at the E. S. George Reserve and Saginaw Forest began in summer of 2019, a Hubble Fellowship has been granted for further orthopteran collections and research, and the collection has sponsored a prairie restoration project. There are student research projects, volunteer opportunities, tours, and other events hosted by UMMZI collection as well as opportunities for all interested to learn about the amazing world of insects and the importance of collecting, collectors, and collections.

The great Rockwell experimental forest, part 1: quantifying plant assemblages

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Plant community species richness is generally positively correlated with insect community species richness. It is not clear whether this relationship is direct, or if both communities are responding to extrinsic abiotic factors such as climate and habitat location. To clarify this relationship, I quantified plant diversity in two forest habitats at Hillsdale College's G. H. Gordon Biological

Station.

I compared two adjacent habitats, called the Hardwood Forest and the Dredge Forest, which have very different histories but similar extrinsic factors due to their locations. The Hardwood Forest is a mature community of deciduous trees. The Dredge Forest is a younger community established on top of material that was dredged from Rockwell Lake in 2001. I measured vascular plant diversity in 42 1m x 1m quadrats for each habitat and found 44 unique plant genera. Non-metric multidimensional scaling analysis showed that the plant assemblages in both habitats were distinct. Soil analyses showed the Dredge Forest had significantly more nutrient rich soil and less sandy soil than Hardwood Forest. These differences in soil explain why the Dredge Forest supports a greater plant biodiversity than the Hardwood Forest. However, sunlight and successional stage could also be factors contributing to the higher biodiversity in the Dredge Forest.

The Great Rockwell Experimental Forest: Part 2

Lily Erickson

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The relationship between plant assemblages and insect assemblages is difficult to elucidate as it is possible that one of these variables influences the other, or that both variables are covarying with another factor such as sunlight differences, precipitation, or elevation. In order to properly study the relationship between flora and fauna, two very different habitats would have to be found in very close proximity in order to control for environmental variables. This does not naturally occur but is the case at the G. H. Gordon Biological Station in Luther, Michigan, providing an ideal location to study the interaction between plants and insects.

In this study, three methods of capture (sweep netting, black lighting, and pitfall trapping) were applied over a 9-week study period to investigate how insect communities are influenced by different plant communities without differences in extrinsic abiotic factors that would otherwise be confounding variables in such a study. The results suggest that different forests house different insect communities, although more research is required to more fully understand this relationship.

Beetle-Mania: Exploring the Coleoptera of Northern Michigan Habitats

Robert Kintz

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The G.H. Gordon Biological Station is composed of a number of habitats spread over 685 acres of land in the northwestern part of the Lower Peninsula of Michigan. Since these habitats are in the same, relatively small, geographical area; abiotic factors such as rainfall, temperature, or cloud cover are controlled for, allowing for increased precision in studies of species assemblages.

For this study, 12 pitfall traps (two per habitat), baited with chicken liver, were placed in a hardwood forest, a regenerating aspen forest, a knapweed field, a prairie field, a red pine forest, and the "Dredge Forest," a forest growing from nutrient-rich soil dredged from the nearby Rockwell Lake. The pitfall traps were checked

twice over the course of three weeks. The beetles from each sampling were identified down to morphospecies, and the species richness and diversity of each habitat was obtained. Analysis of these data showed that the Dredge Forest was the only statistically unique habitat for the beetles in this short study, with lower species richness and diversity compared to the other habitats.

Wildlife Intern Volunteer Positions

Huron-Manistee National Forests
Baldwin/White Cloud Ranger District
Baldwin, Michigan

The Baldwin/White Cloud Ranger District of the Huron-Manistee National Forests is currently seeking three wildlife interns this summer to assist with various wildlife and vegetative surveys. Interns work as a member of a survey team to: 1) inventory endangered, threatened, and sensitive wildlife species; 2) assess habitat suitability for various wildlife species; 3) onduct counts to estimate abundance of Karner blue butterflies, a federally listed endangered species, within designated management areas; 4) conduct vegetative surveys to estimate acreage of suitable Karner blue butterfly habitat within designated management areas; 5) conduct vegetative surveys to assess the effectiveness of different management treatments for restoring savannas; 6) identify management concerns for use in developing management plans; and 7) layout and implement habitat improvement projects.

The data collected will be used by professional staff to develop management plans and conservation measures. Interns also assist with wildlife management activities, complete detailed field reports, enter data into various databases, and participate in outreach activities to educate the public about wildlife conservation issues. They also have the option to complete an independent project to help inform future management decisions.

The survey crew works mid-May to mid-August weekdays between 8:30 am and 5:00 pm. Interns working full-time receive a daily stipend and housing. Part-time schedules are also available (e.g., 8:30 am – 5:00 pm, two days a week).

The Baldwin/White Cloud Ranger District has an active wildlife, botany, and fisheries program and has good working relationships with many partners interested in managing the Forest for game species and non-game species, including the federally listed Karner blue butterfly.

Baldwin is located in the northwest portion of the Lower Peninsula of Michigan in Lake County close to the shores of Lake Michigan. Baldwin has a population of approximately 930 people and is centrally located between the communities of Big Rapids, Reed City, White Cloud, Fremont and Ludington. The area abounds with four season outdoor recreation opportunities, including the Pere Marquette Wild and Scenic River. For more information on the Baldwin area, please visit the Lake County Chamber of Commerce at www.lakecountymichigan.com.

If you are interested in becoming a wildlife intern, please send your resume along with a proposed work schedule to Heather Keough at heather.keough@usda.gov.

Please submit articles, notes, photos or ideas for features for the MES Newsletter. Please direct materials to Duke Elsner at elsner@msu.edu or Crystal Dailey at smilingrainbow00@yahoo.com.

Blue Bottle Blues

Looking for blue butterflies
on the asters near my garden,
but all that's here are blue bottle flies,
what's this? I beg your pardon!

Blues used to show up every fall
flapping, struggling to hold on,
but now it's clear there's none at all,
where could they have gone?

The purple flowers seem so strange
now without the butterfly's dance;
could it be that climate change
has caused this disappearance?

I say goodbye to the blue butterflies,
guessing they too know the news.
I say hello to the blue bottle flies
and hello to the blue bottle blues.

– Ken Tennessen 2020

2020 Dragonfly Society of the Americas Annual and Southeast Gatherings Postponed

As you might have expected, owing to the COVID-19 pandemic, the Dragonfly Society of the Americas has postponed its annual gathering in Oklahoma until next year. Our intent is to reschedule for late June of 2021 in Oklahoma. Similarly, the Southeast Regional meeting has been moved to April of 2021 in Tallahassee, Florida.

The DSA regional meeting and workshop in Colombia, from 29 June to 3 July, is still scheduled to happen, although they will evaluate conditions on the ground and update participants on the meeting's status.

Competing with Martinoptera

Erwin 'Duke' Elsner, Challenger

Over my many years of receiving the MES newsletter, I have had the great pleasure of reading the wonderful Martinoptera articles written by Martin Andre. During this time, I wrote numerous entomology-based articles for Michigan State University Extension and general media outlets. Once in a while I took the chance of adding some humor, but for the most part I kept my comments plain and centered on an appropriate topic. Meanwhile, the Martinoptera topics were all over the board, always excellent, and often featuring Martin's very clever sense of humor.

Now I'm one of the newsletter editors, and I have some time on my hands because I have retired from MSU, so I feel it is my mission to write some newsletter articles of the same caliber of Martinoptera. It is not going to be easy to compete with the reigning master. Fortunately, I have the power to put out an issue with one of my articles without even letting Martin know the issue is coming up.

I suppose I must come up with a catchy title for the series of articles. Dukeoptera is not original enough. Elsnopterygota suggests a higher taxonomic ranking, but it just doesn't roll off the tongue. *Erwinia* is a bacterial genus, so that one is out. Heck, this is harder than it looks!