

# 2024 ESA GREAT LAKES REGIONAL CONFERENCE

“Practicing Ecology in a Changing World”

ECOLOGICAL SOCIETY OF AMERICA

# esa



FRIDAY, SATURDAY & SUNDAY,  
APRIL 5-7

Fetzer Center

Western Michigan University, Kalamazoo, MI

# Main schedule

## 2024 Ecological Society of America Great Lakes Conference Schedule

### Friday

Time	Event type	Location
6:00-9:00pm	No host social	The Old Goat Tavern – 2731 W Michigan Ave.

### Saturday

Time	Event type	Atrium Lobby	Kirsch Auditorium		Room 1035		Room 1045		Room 1055	
			Speaker	Topic	Speaker	Topic	Speaker	Topic	Speaker	Topic
8:00-9:30am	Breakfast	Continental Breakfast			Chapter meeting					
9:30-10:30am	Keynote speech		Dr. Katie Stuble							
10:30-10:45am	Break	Break	OS1		OS2		OS3		OS4	
10:45-11:45am	Oral sessions 1-4		K. Larsen R. Grahan G. Corace E. Thrift-Cahall	Management	C. Valderrama O. Medina-Báez D. Woolnough E. Snyder	Climate Change & Physiology	M. Sinclair K. Beidler A. Zachritz	Populations & Community	N. Soley S. Diller C. Bartlick A. Pruitt	Conservation & Restoration
11:45-12:00pm	Lunch	Lunch Box								
12:00-1:35pm	Workshops				Workshop I: Best practices in reproduceable R workflows for ecological data analysis and visualization		Workshop II: Intro to QGIS		Workshop III: Breaking the 4th wall	
1:35-1:45pm	Break	Break	OS5		OS6		OS7		OS8	
1:45-2:45pm	Oral sessions 5-8		R.Talaba K. Liggett P. Gahir W. Bickford	Invasive Species	A. Mallik E. Chalmers S. Giroud M. Benson	Climate Change & Phenology	M. Howard M. Liddick S. Tiegs L. DeLancey	Decomposition & Nutrients	S. Pickhardt K. Bellisario T. Denbow A. Austin	Conservation & Restoration
2:45-3:00pm	Break	Coffee, Tea & Water	OS9		OS10		OS11		OS12	
3:00-4:00pm	Oral sessions 9-12		A. Cahill T. Wassmer L. Durden G. Miller	Populations & Community	X. Wang S. Walker E. Curtis A. Collins	Decomposition & Nutrients	M. Dougherty C. Shaw J. Yunger M. Cramer	Behavior & Defensive traits	C. Brooks A. Moretti J. Marshall O. Carson	Invasive Species
4:00-5:30pm	Poster Sessions	Poster Session 1 Poster Session 2								
6:00-8:00pm	No Host Social	Bell's Eccentric Cafe – 355 E Kalamazoo Ave								

### Sunday

Time	Event type	Location
9:15am	Bus pickup*	Fetzer Center
10am-12pm	Field trip by WMU	W.K. Kellogg Biological Station

\*Be at Fetzer Center by 9:15am if you requested transportation to KBS. Otherwise arrive to KBS on your own by 10am.

**Oral session speakers & titles**

Speaker	Title	Speaker	Title
	Keynote speech		
Dr. Katie Stuble	Working the Woods: Research at the intersection of application		
<b>OS1 Management (Kirsch Auditorium 10:45-11:45am)</b>		<b>OS7 Decomposition &amp; Nutrients (Room 1045 1:45-2:45pm)</b>	
Kenny Larsen	Estimating the Historical Environmental Impacts of Beavers in the Great Lakes Region using a Monte Carlo Simulation	Mia Howard	Three decades of experimental nitrogen addition provides empirical evidence for resource-driven plant defense evolution
Ryan Grahan	The use of cellphone-based applications complements but doesn't replace local expert knowledge for species-level plant identification	Mitchel Liddick	The effects of leaf litter availability and decomposition on antimicrobial resistance gene (ARG) transport in streams
Greg Corace	Ecological Forestry and Private Lands: Promoting Complexity for Biodiversity and Climate Change Adaptation	Scitt Tiegs	Global predictions of organic-matter decomposition rates in streams
Emma Thrift-Cahall	The Impact of Manure Management on Transport Dynamics of Antimicrobial Resistance Genes (ARGs) in Streams	Lang DeLancey	Prime time for pine decomposition: Ectomycorrhizal fungi enhance litter decay in a temperate red pine forest
<b>OS2 Climate Change &amp; Physiology (Room 1035 10:45-11:45am)</b>		<b>OS8 Conservation &amp; Restoration (Room 1055 1:45-2:45pm)</b>	
Catalina Valderrama	Thermal ecology of <i>Hyloxalus walesi</i> (Anura: Dendrobatidae), in the Ocetá Paramo, Boyacá-Colombia	Silas Pickhardt	Using LANDFIRE data to assess current vegetation, late-succession habitat and wildfire exposure risk in the central Upper Peninsula of MI
Osmary Medina-Báez	Assessing vulnerability of butterflies to climate change in Ohio using their physiological tolerances	Kristen Bellisario	Quantifying the response of biodiversity in core and edge habitats in midwest USA across temporal and spatial scales due to barriers
Daelyn Woolnough	Distribution and physiology of native and invasive bivalves in the Kalamazoo River watershed, MI, USA and the importance of outreach for conservation	Tom Denbow	Sandusky Bay Restoration Initiative: Landscape Scale Integrated Project to Restore Lost Coastal Wetland Functions
Elise Snyder	Temperature increases environmental DNA (eDNA) removal rates in flowing waters	Adam Austin	Conserving rattlesnakes and their habitats via an inclusive volunteer network
<b>OS3 Populations &amp; Community (Room 1045 10:45-11:45am)</b>		<b>OS9 Populations &amp; Community (Kirsch Auditorium 3-4pm)</b>	
Madelynn Sinclair	The latitudinal trend in the proportion of migratory bird species in East Asia	Abigail Cahill	Macroinvertebrate community composition and diversity in wild rice beds
Kaitlyn Beidler	Alterations to grassland soil nutrient supply have a stronger effect on fungal necromass decay than manipulations of soil food web composition	Thomas Wassmer	Population structure of the Rainbow Scarab, <i>Phanaeus vindex</i> (Coleoptera: Scarabaeidae) in SE Michigan
Alison Zachritz	The forgotten pillar of global change: Synthetic chemicals such as PFAS require integration of ecology and toxicology	Lekeah Durden	Being Neighborly: Can morning glory endosymbiosis impact co-occurring neighbor?
		Geoffrey Miller	Who's the top dog? Movement analyses suggest humans facilitate spatial partitioning in competing urban canids
<b>OS4 Conservation &amp; Restoration (Room 1055 10:45-11:45am)</b>		<b>OS10 Decomposition &amp; Nutrients (Room 1035 3-4pm)</b>	
Nathan Soley	Prairie seed mixes of intermediate grass: forb ratio create vegetation of greater ecosystem services value	Xueqi (Sharon) Wang	The Effect of Nutrient Transport Downstream on Food Web Stability in an Experimental Freshwater Meta-Ecosystem
Sara Diller	Riparian Vegetation and Arthropod Responses to Dam Removal along the Kalamazoo River	Shannon Walker	Fungal endophyte influences dune-building grass growth strategy and productivity in response to nutrient enrichment
Claudia Bartlick	MICEDAR - Restoring Northern White-Cedar Swamps in the Upper Great Lakes Region	Eric Curtis	Leaf Litter Inputs and Their Biofilms Influence Size-Specific eDNA Removal Rates in Streams
Abagael Pruitt	Land use and stream size impact spatial patterns of water chemistry signatures across four midwestern river basins	Allison Collins	Testing growth-defense tradeoffs in 20 populations of Common Milkweed, <i>Asclepias syriaca</i>
<b>OS5 Invasive Species (Kirsch Auditorium 1:45-2:45pm)</b>		<b>OS11 Behavior &amp; Defensive traits (Room 1045 3-4pm)</b>	
Rina Talaba	Investigating the effect of seed predation by a non-native weevil, <i>Larinus planus</i> , on pollinator visitation and floral scent of <i>Cirsium pitcheri</i> .	Matthew Dougherty	Predation and ecosystem size interact to regulate prey heterogeneity
Kaira Liggett	Invasive species management in a changing environment: Using Great Lakes high water levels to control invasive common reed ( <i>Phragmites australis</i> )	Clara Shaw	Predicting virus emergence from initial spillover characteristics
Priya Gahir	Phragmites management in high water: how adventitious roots may save plants from drowning.	John Yunger	Predation and dispersal of acorns and maple seeds in temperate deciduous forests.
Wesley A. Bickford	A decision support and prioritization framework for invasive plant management under fluctuating Great Lakes water levels	Michael Cramer	Utilizing trapping data to understand how movement determines mating systems in <i>Peromyscus</i>
<b>OS6 Climate Change &amp; Phenology (Room 1035 1:45-2:45pm)</b>		<b>OS12 Invasive Species (Room 1055 3-4pm)</b>	
Azim Mallik	Shade effect on phenology, fruit yield, and phenolic content of two wild blueberry species of NW Ontario, Canada	Collin Brooks	Multispectral drone sensing for Eurasian watermilfoil treatment monitoring
Evan Chalmers	The Phenology of <i>Microstegium vimineum</i>	Ashlynn Moretti	Genetic and species richness interact to influence invasibility within experimental aquatic plant communities
Sylvain Giroud	Trade-Offs in Seasonal Dormancy Phenology in Endotherms and Ectotherms	James Marshall	The role of migrant versus resident birds in the spread of an invasive bush honeysuckle
Michael Benson	Tree growth sensitivity is a poor indicator of mortality following severe drought in midwestern United States forests	Olivia Carson	Increases in genetic, species, and trophic diversity affect the invasibility of experimental duckweed communities invaded by <i>Salvinia</i> sp.

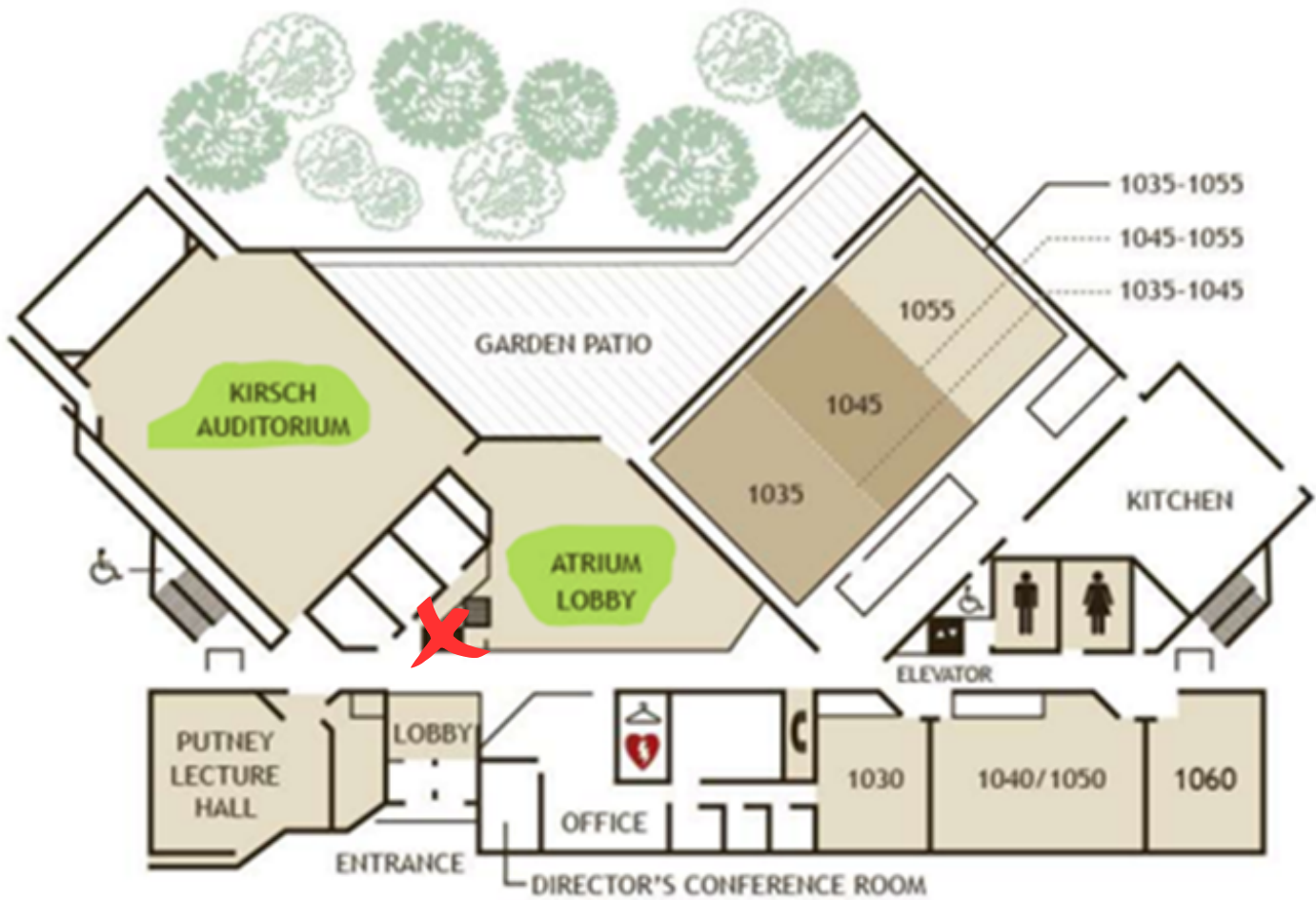
**Poster session speakers and titles****Poster session 1 (Atrium Lobby 4:00-4:45pm)**

#	Speaker	Title
1	Alexa Wagner	Forest management drives beta diversity and species turnover in newly recruited woody plant communities
2	Amaryllis Adey	Invertebrate spatial biodiversity in coastal wetlands of the Laurentian Great Lakes
3	Biana Qiu	Effectiveness of light color and conspecific presence in promoting tadpole capture via funnel trapping
4	Daniel Etcheberrigara	Genetic and morphological effects of hybridization during a species invasion
5	David Jenkins	Increasing spring temperatures result in earlier onset of forest canopy closure and ephemeral wildflower emergence
6	Emily Parker	How the overlap of abiotic and biotic stressors impact tall goldenrod ( <i>Solidago altissima</i> ) fitness
7	F. Collin Hobbs	Recovery of native shrub layer following removal of invasive bush honeysuckle ( <i>Lonicera</i> spp.) in a Midwestern forest
8	Hannah Menosky	Habitat Use and Distribution of The Common Garter Snake <i>Thamnophis sirtalis</i> in a Restored Prairie/ Wetland Complex
9	Hannah Reyes	How does acoustic community profiles in a prairie habitat in the midwest provide biodiversity metrics that identify bobcat presence?
10	Jacob Hansel	Factors affecting ectomycorrhizal community ecology in the Kickapoo Valley Wisconsin USA.
11	Jeneva Tomaszewski	The Effects of Drought on Competitive Interactions Between Barley and Corn
12	Jewel Johnson	Doing what your neighbours do: Finding evidence of social interaction within an egg clutch using network-based diffusion models.
13	Karly Steinberg	Fear factor: how exposure to conspecific alarm cues impacts embryonic behavior and development in <i>Pimephales promelas</i>
14	Kaylin Engerman	Newly introduced garlic mustard aphid ( <i>Lipaphis alliariae</i> ) reduces growth and reproduction of invasive garlic mustard ( <i>Alliaria petiolata</i> )
15	Kaylynne Dennis	Exploring carbon cycling trends in a Great Lakes Estuary and Area of Concern
16	Kelvin Crone-Willis	The effects of wild rice on macroinvertebrate communities within the North branch of the Kalamazoo River in Michigan
17	Leah Turner	Environmentally relevant concentrations of citalopram during early development impact social behavior and fear responses in fathead minnows ( <i>Pimephales promelas</i> ).
18	Lillian Dun	Duckweed populations ( <i>Lemna minor</i> and <i>Spirodela polyhriza</i> ) evolve different traits in the presence or absence of different invasive <i>Salvinia</i> species
19	Luca Iacobucci	Can Least Cost Path Analysis be effective for plotting a potential wildlife corridor for bobcats in northern Indiana?
20	Mackenzie Persinger	Don't eat plastic, kids: Evaluation of the effects of microplastics and its potential as a vector for 17 alpha-ethinylestradiol on early life stage behaviors in <i>Pimephales promelas</i>
21	Madeleine Schouman	Comparing Strategies for Reducing Contamination in Plant-Microbiome Experiments
22	Maria Nachivula	Do yellow warblers modify the frequency and temporal traits of their songs in response to intermittent noise?
23	Mikaelis Anderson	Temporal variation in environmental DNA (eDNA) export at a pond-stream interface
24	Molly Russell	Variation in microhabitat availability and selection across a landscape disturbance gradient in the neotropics
25	Quinn Collins	Interplay of Avian Predation and Parasitism in Goldenrod Gall Communities in SW Michigan
26	Sandra Okoye	A Study on the Sewage Microbiome Dynamics in Different Serving Neighborhoods of Charleston Illinois.
27	Sarah Alharbi	Integrated above- and below-ground trait responses to AM inoculation in seven <i>Asclepias</i> species
28	Thomas Bakoway	Drone-Based Assessment of Invasive Shrubs in Ramsdell Park, Lenawee County, Michigan
29	Xiaoyong Chen	Characteristics of earthworms in selective forest types in Michigan-Illinois region

**Poster session 2 (Atrium Lobby 4:45-5:30pm)**

#	Speaker	Title
1	Zachary Kassuba	Restoration of Fire to the Litter and Duff Layers in a Pine-Oak Dominated Forest Stand
2	Allison Harnish	Wigwasmkek: Braiding Indigenous Ecological Knowledge and Western Research Methods in the Study of Mnomen (Wild Rice) Ecosystems
3	Allison Suddaby	Defining the ecological range of <i>Rothia</i> , an under-appreciated bacteria genus found in host-associated microbiomes
4	Ariel Johnson	Moderate severity disturbances from insects can increase temperate forest diversity and minimally impact net primary production
5	Asma Jamil	Patterns of seed maturation and packaging and their effects on dispersal potential in the multi-seeded fruits of eastern redbud ( <i>Cercis canadensis</i> )
6	Brianna Shepherd	<i>Fagus grandifolia</i> mortality and growth at the epicenter of Beech Leaf Disease
7	Christiana Guthrie	The Proof is in the Plant Traits: A comparison of intraspecific plant trait data collected from both a natural and experimental prairie restoration
8	Dominic Aiello	Effects of Density on Eco-evolutionary Dynamics
9	Ellen Badger Hanson	Using microbial distance-decay relationships to understand the influence of seed mix richness on soil microbial communities in restored prairies
10	Ember Carrera	Surface activity of the burrowing crayfish <i>Creaserinus fodiens</i> in northern Ohio.
11	Emma Dawson-Glass	Effects of warming on plant investment into a plant defense mutualism
12	Harrison Copeland	Effects of Color, Pattern, and Distance from a Pond on Predator Attack Rates on Clay Model Frogs in Central Ohio
13	Jillian Salmon	Initial Movement Orientation of Two Pond-Breeding Amphibians
14	John Lawrence	Assessing Littoral Dissolved Oxygen Trends in Muskegon Lake
15	Kadisyn Ceplina	Intraspecific variation in body shape between three alewife ( <i>Alosa pseudoharengus</i> ) populations: anadromous, East Coast USA landlocked, and Laurentian Great Lakes
16	Katherine Porras Brenes	Loads in leafcutter ants may impede sensing the foraging trails
17	Katie Hong	How does mammal species diversity in a gradient of habitat features predict bobcat presence in the Central Till plains?
18	Keely Dunham	Using airborne eDNA to investigate the impacts of hemlock woolly adelgid on community diversity
19	Kylee Nissen	Seeding Strategies Influence Pollinator Community Composition within an Electric Right-of-Way
20	Lizzy Small	Small mammal trophic niche dynamics in response to prescribed fire and bison grazing in tallgrass prairie
21	Rohan Adams	Smallmouth bass diets quantified from areas of the Kalamazoo river in different stages of dam removal.
22	Sierra Hunnicutt	How does proximity to moving water impact biodiversity of a Central Indiana habitat, using AI and geo-informational technology?
23	Stive Flores Gomez	Phytoplankton community in lake water quality assessment: a review of scientific literature based on bibliometric and network techniques
24	Therese Reisch	Complex effects of perfluorooctane sulfonic acid (PFOS) on stream ecosystem function
25	Timothy Gsell	Influence of Invasive Earthworms to Microbial Abundance and Carbon Usage in Three Unique Forest Type Soils in the Upper Peninsula of Michigan
26	Tram Tran	Tracking incidence and trait changes across disturbances at Konza Prairie LTER
27	Ty Belville	Effects of artificial lighting on Red-back Salamanders ( <i>Plethodon cinereus</i> ) and forest floor communities.
28	Zhijun (Mavis) Ding	Exploring local adaptation in common milkweed through a common garden design: insights from herbivore dynamics over three years

# Fetzer Center Map



**X GET YOUR BADGE AT THE REGISTRATION DESK LOCATED IN THE ATRIUM LOBBY**

# THANK YOU!



**KALAMAZOO COLLEGE**



**MICHIGAN STATE UNIVERSITY'S KELLOGG  
BIOLOGICAL STATION**



**WESTERN MICHIGAN UNIVERSITY**



**PR STATISTICS**

*Sponsoring student presentation prize*

*Thanks to all the judges and student volunteers.*

## **GREAT LAKES REGIONAL CONFERENCE PLANNING COMMITTEE**

ADAM R. AUSTIN, WESTERN MICHIGAN UNIVERSITY  
DR. LIANE COCHRAN-STAFIRA, SAINT XAVIER UNIVERSITY  
DR. ANDREA CORBETT, CLEVELAND STATE UNIVERSITY  
DR. KATHRYN M. DOCHERTY, WESTERN MICHIGAN UNIVERSITY  
DR. LEKEAH DURDEN, CENTRAL MICHIGAN UNIVERSITY  
GRANT FALVO, MICHIGAN STATE UNIVERSITY  
DR. E. BINNEY GIRDLER, KALAMAZOO COLLEGE  
OSMARY A. MEDINA-BÁEZ, CASE WESTERN RESERVE UNIVERSITY  
DR. HÉCTOR G. ORTIZ, CHICAGO BOTANICAL GARDEN  
DR. TIFFANY SCHRIEVER, WESTERN MICHIGAN UNIVERSITY  
DR. JENISE SNYDER, URSULINE COLLEGE  
CATALINA VALDERRAMA, JOHN CARROLL UNIVERSITY  
DR. KENNETH ZIDELL, UNIVERSITY OF BUFFALO