Melissa D. Starking

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EDUCATION

2016 – 2025 ***Ph.D.*** *Fisheries and Wildlife & Ecology*
Ph.D. *Evolutionary Biology and Behavior (dual degree)*
Michigan State University, East Lansing, Michigan
Dissertation: *Wildlife Responses to Varying Silvicultural Approaches for Promoting Diversity and Sustainability of Michigan's Northern Hardwood* Forests. Advisor: Gary Roloff

2017 – 2018 *Graduate Certification in College Teaching*
Michigan State University, East Lansing, Michigan.

2016 – 2018 *Graduate Certification in Spatial Ecology*
Michigan State University, East Lansing, Michigan.

2013 – 2016 ***M.S.*** *Biology*
University of Michigan-Flint, Flint, Michigan.
Thesis: *Habitat factors affecting survival of headstarted Blanding's Turtles (Emydoidea blandingii) at release sites in Shiawassee National Wildlife Refuge, Saginaw, MI.* Advisor: Teresa Yoder-Nowak

2013 – 2016 *Geographic Information Systems (GIS) Certificate*
University of Michigan-Flint, Flint, Michigan

2007 – 2013 ***B.S.*** *Major: Wildlife Biology; Minor: Psychology*
University of Michigan-Flint, Flint, Michigan

WORK EXPERIENCE

Assistant Professor, University of Michigan – Flint

Position: *Tenure-track Assistant Professor of Biology;* Aug 2025 - Current

- Designed and implemented innovative teaching practices in multiple wildlife biology, ecology, and evolution courses.
- Taught courses (listed below in teaching experience) across multiple subjects in theory and applied ecology topics, including designing ecology labs in R, project design and implementation, and wildlife techniques in terrestrial and aquatic systems.
- Mentored students (freshman through graduate level) in class and as graduate students.

Lecturer II, Instructor of Record, University of Michigan – Flint

Position: *Non-tenure track Lecturer of Biology;* Nov 2017 – Aug 2025

- Designed and implemented innovative teaching practices in multiple wildlife biology, ecology, and evolution courses.
- Taught courses (listed below in teaching experience) across multiple subjects in theory and applied ecology topics, including designing ecology labs in R, project design and implementation, and wildlife techniques in terrestrial and aquatic systems.
- Mentored students (freshman through graduate level) in class and as graduate students.

Technical Services, RSGCN Data Manager, Wildlife Management Institute

Project: *Regional Species of Greatest Conservation Need, Technical Services Support to the Northeast Fish and Wildlife Diversity Technical Committee;* Apr. 2023 – Current

- I support the Northeast Fish and Wildlife Diversity Technical Committee (NEFWDTC) in addressing their Charges through research, data compilation, synthesis, analyses, and communication of current regional fish and wildlife diversity data.
- Compile, analyze, update, and interpret the Regional Species of Greatest Conservation Need (RSGCN) status, updates, priority issues, and actions for RSGCN to support data and database management.
- I review and analyze new information sources and scientific publications relevant to SGCN and RSGCN species, habitat associations, and threats in the Northeast and emerging pertinent threats to their regional conservation, collecting literature and resources for web-enabling the Regional Conservation Synthesis and RSGCN Database.
- I provide draft and final technical reports and communication products for the NEFWDTC and NEAFWA.
- I initiated the development of communication products such as fact sheets on the 2023 RSGCN updated list and Regional Conservation Synthesis to facilitate incorporating their resources and tools by the SWAP Coordinators in their 2025 SWAP revisions. I created a branding style for fact sheets and communication products consistent with the color and formatting style of the updated NEFWDTC website.
- Provide analyses and synthesis of current data for the NEFWDTC for their decision-making and priority setting.

Conservation Biologist, Data Analyst, Terwilliger Consulting Inc.

Project: *Northeast & Midwest Regional Species of Greatest Conservation Need, Connecticut State Wildlife Action Plan,* Nov. 2021 – Current

- I research and incorporate species, habitats, threats, and actions information into a database to accommodate results chains, monitoring, tracking, and web-enabling information.
- Quality assurance and quality control of the database for accuracy and updates.
- Coordinate and assist in reviewing data and metadata before approval, facilitate the preparation and finalization of approved data, and provide insight for evaluating and using data management tools and science databases for the Northeast Fish and Wildlife Diversity Technical Committee and Midwest Landscape Initiative.
- I enter new data as taxa teams and experts provide information and code data according to agreed-upon standard classification systems (NE Lexicon, IUCN, CMP/TRACS, etc.).
- Planned, conducted, and documented meetings and correspondences with stakeholders and compiled input.
- Inventory and report on the status of species and habitat data using the recently published update of Northeast Wildlife, Midwest Wildlife, and other key references.
- I use R to analyze and synthesize data from the Regional Species of Greater Conservation Need Access Database and create R Shiny apps for web-enabled tools for State and Regional partners.
- Coordinates with partners to ensure the preservation of scientific data, metadata, software, and Northeast Fish and Wildlife Diversity Technical Committee records.
- I synthesize regional conservation information to create reports, fact sheets, and outreach material for the Midwest Landscape Initiative.

Research Assistant, Michigan State University

Project: *Wildlife Responses to Different Silvicultural Approaches for Promoting Diversity and Sustainability of Michigan's Northern Hardwood Forests;* June 2016 – August 2022

- Provided technical and scientific support for wildlife research in collaboration with the Michigan Department of Natural Resources. I conceptualized, planned, implemented, and collected data, ran data analysis, and presented, wrote, and communicated the wildlife portion of the research.

- Created statement of purposes and protocols and implemented data collection using camera trapping methods, snow track surveys, pellet surveys, and browse surveys.
- I used techniques to detect and model animal communities, focusing on white-tailed deer throughout northern hardwood forests to increase northern hardwood regeneration.
- Worked and communicated with partners for decision-making, research implementation, briefings, and science communication, including universities, Michigan Department of Natural Resources scientists, private timber industry partners, journalists, shareholder groups, and the public.
- Certified drone pilot (FAA part 107) for collecting aerial data of forest research sites.
- Responsible for data management and storage, including over 4,000,000 camera trap photos.
- Statistical data analyses and spatial modeling (analytical and programming skills) in R, ArcGIS, Pix4D, Microsoft Office suite, and Avenza mapping.
- Developed and wrote training materials for technicians and assistants.
- Managed, mentored, and trained rotating crews of 15 undergraduate, lab, and field technician assistants annually on field techniques, data management, and analysis.
- Successfully wrote and received grants to supplement research costs and activities.
- Managed grant and field research budgets.
- Presented and published results at scientific and public meetings.
- While the contract was for 20 hrs/week, I typically worked 30-50 hrs/week.

USFWS Directorate Fellowship Program Fellow (DFP)

Project: *Increasing use of Wildlife-friendly Erosion Control Materials*, MI (DFP-LR3-09); May 2021 – Aug 2021

- Collected data, performed a literature search, and created informational materials for the United States Fish and Wildlife Service on wildlife-friendly erosion control products to help communicate the need to stop using plastic netting that harms wildlife and pollutes the environment.
- I met with USFWS staff and partners weekly.
- Attended webinars and training for the eleven-week program.
- Developed a webinar and presented it to federal, state, and local governments and partners across the US on collaborating to use wildlife-friendly erosion control products.
- I developed a white paper, a one-page fact sheet, and a table of products that meet wildlife-friendly specifications as shown in the scientific literature.
- Attended workshops on field techniques and assisted in data collection with Ecological Services biologists working on federally listed threatened and endangered species.
- I job shadowed USFWS biologists working on biological assessments, D-Key development, and species status assessments.

Future Academic Scholars in Teaching Fellowship (FAST)

Project: *Do individual student personality traits influence group learning?* Sep. 2018 May 2019

- I developed an original research project on how students' personality traits influence their learning in a wildlife field techniques course.
- Collected data, performed a literature search, and created teaching materials.
- Attended workshops and training on teaching, learning, and educational styles and techniques.
- I met with FAST fellows and mentors weekly for a year.
- Presented the findings at scientific teaching conferences and created a poster for faculty and students to learn how to increase student learning by assigning mixed personality groups of students in field and classroom settings.

Volunteer, The Wildlife Society (TWS)

Position: *Michigan Chapter of The Wildlife Society, North-Central Section of The Wildlife Society, Forestry and Wildlife Working Group of The Wildlife Society;* Part Time (5-10 hours/week); Mar. 2018 – Current.

- Michigan Chapter of The Wildlife Society elected positions and roles: Board member, Conservation Affairs Network Contact, Secretary, President-Elect, President.
- North-Central Section of The Wildlife Society elected positions: Graduate student representative on the board.
- Forestry and Wildlife Working Group of The Wildlife Society elected positions: Chair-Elect, Secretary and Treasurer, TWP Editorial Advisory representative for FWWG, DEI Network representative.
- Disabilities, Neurodivergence & Allyship Working Group elected positions; Past-Chair.
- Directed, attended, and coordinated bi-weekly and monthly meetings of board members and committee groups.
- I plan and develop workshops, membership meetings, newsletters, and communication with members.
- I planned and implemented conferences in person and virtually, including soliciting speakers, scheduling award ceremonies, and more. Coordination with other Societies for dual conferences. Event location and planning.
- I am responsible for communication between chapter and working group functions and finances across The Wildlife Society chapters and TWS employees.
- I help develop and edit chapter bylaws, onboarding training materials, social media accounts, multiple email accounts, and surveys to members.

Research Assistant, University of Michigan - Flint

Project: *Investigation of Survival of Headstarted Blanding's Turtles;* Sep. 2013 – Aug. 2016

- Studied survival, movement, and habitat use of a state-threatened, federally listed species.
- I worked with partners for decision-making, research implementation, briefings, and science communication, including universities, the Detroit Zoological Society, and USFWS biologist and wildlife refuge manager at Shiawassee National Wildlife Refuge.
- Worked with journalists to communicate the science to shareholder groups and the public.
- I gave conservation experience tours to Detroit Zoological Society donors.
- Notched turtle carapace, attached radio transmitters to the carapace, species identification of plants and animals, trapping, mark-recapture techniques, turtle palpating, habitat analysis, and radio telemetry.
- I worked in laboratory and field settings using analytical techniques, including statistical analyses and spatial modeling (analytical and programming skills).
- Successfully wrote and received grants to supplement research costs and activities.
- Presented and published results at scientific and public meetings.
- Created and taught multiple workshops for 7-12 grade students, introducing them to research methods and results geared toward the conservation of threatened and endangered species listed under the Endangered Species Act.
- Mentored and trained six undergraduate research assistants on field techniques, graduate school experience, and developing scientific materials for audiences for three years.

Project: *MTA survey & Active Travel Sentiment Analysis using Big Data and GIS*; Jan. 2015 – Apr. 2016

- Performed various GIS functions and spatial analyses, including geocoding, regression modeling (OLS, GWR), development of space-time cubes, and database management techniques.
- Software used included Microsoft Excel, ArcGIS, and SPSS.
- Drafted a manuscript.

Project: *Investigation of the performance of pheromone baited trapping techniques using a management strategy model;* Sept. 2013 – Apr. 2014

- I performed model simulations using the Management Strategy Evaluation Model (Visual Basic) and applied database management techniques using Microsoft Access, Microsoft Excel, and ArcGIS.
- Responsible for creating published-quality maps and data tables and assisting in drafting the manuscript.

TEACHING EXPERIENCE

Assistant Professor, University of Michigan – Flint

Forest Ecology (BIO 487/587), Sep. 2025 – Dec. 2025.

- Asst. Professor; Exploration of the role environmental factors (sun, soil, water, etc.) and wildlife and humans have on the establishment, growth, and development of forest communities. Forest structure, ecosystem function. Field based.

Lecturer II, Instructor of Record, University of Michigan – Flint

Forest Ecology (BIO 487/587), Sep. 2024 – Dec. 2024.

- Lecturer; Exploration of the role environmental factors (sun, soil, water, etc.) and wildlife and humans have on the establishment, growth, and development of forest communities. Forest structure, ecosystem function. Field based.

Mammalogy (BIO 421/521), Sep. 2024 – Dec. 2024.

- Lecturer; Study of the major groups of mammals; natural history, physiology, anatomy, and systematics of all living orders; North American mammals classified to family. Students are responsible for identifying species using field and skull characters of most Michigan mammals. Lecture and laboratory. Laboratories in the field encompassing techniques commonly used in mammalogy.

Evolution and Adaptation Biology (BIO 453/553), Jan. 2022 – Apr. 2022, Jan. 2020 – Apr. 2020, Jan. 2019 – Apr. 2019.

- Lecturer; mixed mode course covers fundamentals of plant and animal evolution. Includes genetics of populations, selection models, geographic variation, adaptation, population structure, mating systems, species concepts, and molecular evolution. Emphasis on evolutionary mechanisms in populations. Capstone course.

Wildlife Ecology and Management (BIO 423/523), Sep. 2021 – Dec. 2021, Sep. 2020 – Dec. 2020, Sep. 2019 – Dec. 2019, Sep. 2018 – Dec. 2018.

- Lecturer/ lab instructor; course covers the application of basic ecological knowledge to populations of animals and their plant and animal associates. Dynamics of animal and plant populations and communities; management of animal populations (including introduced, game, non-game, and endangered species) and ecosystems that support these populations; the need to balance the welfare of managed populations with the needs of people.

Organismal Biology (BIO 111), Sep. 2021 – Dec. 2021, Jan. 2021 – Apr. 2021, Sep. 2020 – Dec. 2020.

- Lab instructor; course covers topics to introduce students to life on Earth, such as anatomy, physiology, diversity, development, and evolution of representative plants, animals, fungi, protists, and bacteria.

Field Biology (BIO 480), June 2020.

- Lecturer; Field study of common, indicator and unique wildlife species of natural habitats of Michigan. Emphasis on field identification of vascular plants, amphibians, reptiles, and birds, as well as field techniques for sampling, censusing, and/or monitoring wildlife species and abiotic conditions and resources of habitats.

Senior Seminar (BIO 477), Jan. 2020 – Apr. 2020, Sep. 2018 – Dec. 2018.

- Lecturer; course covers critical analysis of current biological research. Students learn to communicate biological concepts to other scientists and the public using written (papers and posters) and oral (presentation) formats. Capstone course.

Advanced Ecology and Evolutionary Biology (BIO 503), Jan. 2022 – Apr. 2022, Jan. 2019 – Apr. 2019, Jan. 2018 – Apr. 2018.

- Lecturer; course covers survey, review, and presentation of recently developed information, concepts, techniques, and methods in ecology and evolutionary biology. Advanced R analysis on topics of Ecology and Evolution. Required for all biology graduate students.

Herpetology (BIO 456/556), Nov. 2017 – Dec. 2017.

- Lecturer/ lab instructor; course covers topics of taxonomy, evolution, morphology, anatomy, physiology, ecology, behavior and conservation for amphibians and reptiles; identification of families and selected species.

<u>Graduate Student Instructor, University of Michigan – Flint</u>

Organismal Biology (BIO 111), Jan. 2016 – Apr. 2016.

- Lab instructor; course covers topics to introduce students to life on the planet Earth such as aspects of the anatomy, physiology, diversity, development, and evolution of representative plants, animals, fungi, protists, and bacteria.

<u>Lab Instructor/ Guest Lecture, University of Michigan – Flint</u>

Conservation Biology (BIO 460/560), March 2017, March 2015.

- Guest lectured, developed, and instructed GIS lab session for vernal pool service project with the Michigan DNR.

<u>Teaching & Laboratory Assistant, University of Michigan - Flint</u>

Geographic Information Systems II (RPL 371), Jan. 2016 – Apr. 2016, Jan. 2015 – Apr. 2015

- Instructed students during lab, graded assignments, and held tutoring sessions.

Ecology (BIO 327), Jan. 2015 – Apr. 2015.

- Lab prep, instructed students during lab, and graded assignments.

Organismal Biology (BIO 111), Sep. 2015 – Dec. 2015 .

- Proctored exams and class prep, instructed students during lab, and graded assignments.

<u>Teaching Assistant & Guest Lecturer, University of Michigan - Flint</u>

Geographic Information Systems I (RPL 370), Sep. 2016 – Dec. 2016, Sep. 2015 – Dec. 2015, Sep. 2014 – Dec. 2014.

- Guest lectured, instructed students during lab, graded assignments, and held tutoring sessions.

Spatial Analysis Seminar. (RPL 404), Sep. 2015 – Dec. 2015.

- Guest lectured, instructed students during lab, graded assignments, and held tutoring sessions.

Invited Guest Lectures

Michigan State University

- Wildlife Research and Management Techniques (FW 413)
    - Guest lecture on Northern Hardwood research and field techniques. Dec. 2020
    - Developed and co-taught a multi-week laboratory covering detection and techniques with camera trapping and scent stations. This was part of a mentored teaching project for the Certificate in College Teaching. Oct. 2017
    - Guest lecture on Blanding's turtle research and field techniques. Oct. 2016

University of Michigan-Flint

- Wildlife Ecology and Management (BIO 423/523)
    - Guest lecture on current Blanding's turtle research and management issues. Nov. 2015

Eastern Michigan University

- Herpetology (BIO 484/584)
    - Guest lecture on current Blanding's turtle research, radio telemetry demonstration & activity. Jun. 2015

PUBLICATIONS

In preparation (*analyses complete, writing drafted or submitted*)

Starking, M.D., T. Rice, K. Terwilliger, D. Drummey, M. Frantz, C. D. Haffner, B. Hess, L. Holst, and Michael Marchand. The Northeast U.S. Regional Species of Greatest Conservation Need (RSGCN) as a Collaborative Approach to Regional Species Prioritization for Meaningful Conservation. To be submitted to Conservation Biology.

Burgio, K.R., **Starking, M.D.**, K. Cruz, A. Farrell, E. Murley, H. Higgins, A. Lubeck, C. Arndtsen, T. Rice, K. Terwilliger, and M.D. Staudinger. Biological Responses and Vulnerability of the Northeastern Species of Greatest Conservation Need to Climate Change. To be submitted to CLIMATIC CHANGE.

Starking, M.D., K.R. Burgio, K. Cruz, A. Farrell, E. Murley, H. Higgins, A. Lubeck, C. Arndtsen, T. Rice, K. Terwilliger, and M.D. Staudinger. Biological Responses and Vulnerability of at-risk Vernal Pool Species to Climate Change. To be submitted to CLIMATIC CHANGE.

Starking, M.D., S. Gray, R.A. Montgomery, M. Walters, and G.J. Roloff. Hardwood Forest Management and Wildlife Responses: A Review of Herbivory and Granivory post-Silviculture.

Peer-Reviewed Publications

8. **Starking, M.D**. and G.J. Roloff. 2023. Alternative Silviculture Treatments and the Influence on White-tailed Deer Behavior. In: Kern, Christel C.; Dickinson, Yvette L., eds. Proceedings of the first biennial Northern Hardwood Conference 2021: Bridging science and management for the future. Gen. Tech. Rep. NRS-P-211. Madison, WI: U.S. Department of Agriculture, Forest Service, Northern Research Station: 56 57. https://doi.org/10.2737/NRS-GTR-P-211-paper13.

7. Walters, M., G.J. Roloff, J. Hartman, M. Donovan, C. Henry, E. Farinosi, **M.D. Starking**. 2020. Rethinking Northern Hardwood Forest Management Paradigms with Silvicultural Systems Research: Research–Management Partnerships Ensure Relevance and Application, *Journal of Forestry*, https://doi.org/10.1093/jofore/fvz07.

6. Allard, S.M., G.A. Fuller, L.L. Torgerson-White, **M.D. Starking,** T. Yoder-Nowak. 2019. Personality in Zoo-Hatched Blanding's Turtles Affects Behavior and Survival After Reintroduction Into the Wild. *Frontiers in Psychology, Comparative Psychology*, 10, 2324.

5. **Starking, M.D.** and G.J. Roloff. 2019. Evaluating Mustard Extraction Technique for Earthworms. *The Wildlife Society Bulletin,* 43(4), 760-765.

4. **Starking-Szymanski, M.D**., T. Yoder-Nowak, G. Rybarczyk, & H.A. Dawson. 2018. Movement and Habitat Use of Headstarted Blanding's Turtles in Michigan. *Journal of Wildlife Management*, 82(7), 1516-1527.

3. Rybarczyk, G., S. Banerjee, **M.D. Starking-Szymanski,** & R.R. Shaker. 2018. Travel and us: the impact of mode share on sentiment using geo-social media and GIS. *Journal of Location Based Services*, 12:1, 40-62, DOI: 10.1080/17489725.2018.1468039.

2. **Starking-Szymanski, M. D.** 2016. Investigation of Headstarted Blanding's turtles (*Emydoidea blandingii*) in Shiawassee National Wildlife Refuge, Saginaw, MI. Thesis. University of Michigan-Flint, Flint, MI.

1. Dawson, H.A., M.L. Jones, B.J. Irwin, N.S. Johnson, C.M. Wagner, **M.D. Szymanski.** 2016. Management strategy evaluation of a new control tactic to manage an invasive fish. *Natural Resource Modeling,* 29: 448-469. DOI: 10.1111/nrm.12096.

Reports and White Papers

4. Burgio, K.R., **M.D. Starking**, K. Terwilliger, and B. Hess. 2025. Connecticut Wildlife Action Plan.

3. Burgio, K.R., H. Higgins, A. Lubeck, **M.D. Starking**, T. Rice, H. Siart, K. Cruz*, E. Murley*, K. Terwilliger, and M.D. Staudinger. 2024. Biological Responses to Climate Impacts of the Northeast Regional Species of Greatest Conservation Need. In: https://doi.org/10.21429/t352-9q86 Northeast Climate Adaptation Science Center Cooperator Report.

2. Terwilliger Consulting, Inc. [Tracy Monegan Rice, **M.D. Starking**, Karen Terwilliger, et al.] and the Northeast Fish and Wildlife Diversity Technical Committee. 2023. Northeast Regional Conservation Synthesis for 2025 State Wildlife Action Plans. Northeast Association of Fish and Wildlife Agencies, Washington, D.C.

1. **Starking, M.D.** and C. Tansy. **2020.** Wildlife and environmentally friendly erosion control materials. United States Fish and Wildlife Service. East Lansing Field Office. https://www.fws.gov/sites/default/files/documents/WLfriendlyErosionControl__final.pdf

Oral Presentations (first author indicates speaker)

41. **Starking, M.D**. and Roloff, G.J. 2025. Wildlife Responses to Various Silviculture Approaches in Northern Hardwood Forests; Stand-Level Silviculture, Landscape-Level Biodiversity: Lessons from Northern Hardwoods. *Invited talk*. The Wildlife Society Annual Conference. Oct. 2025. Edmonton, AB, Canada. (~70 attendees).

40. Burgio, K.R., **M.D. Starking**, and M.D. Staudinger. 2025. From Synthesis to Management: Integrating Climate Change Science into State Wildlife Action Plans. The Wildlife Society Annual Conference. Oct. 2025. Edmonton, AB, Canada (~70 attendees).

39. **M.D. Starking** and K.R. Burgio. 2025. Neurodiversity in the Wildlife Professions: From Paradigm to Practice. The Wildlife Society Annual Conference. Oct. 2025. Edmonton, AB, Canada (~50 attendees).

38. Bischoff, K. C. Rittenhouse, T. Rittenhouse, E. Shoreman-Ouimet, B. Hess, S. Kearney, K.R. Burgio, and **M.D. Starking**. 2025. Integrating people, wildlife, and governance in conservation opportunity areas for State Wildlife Action Plans. The Wildlife Society Annual Conference. Oct. 2025. Edmonton, AB, Canada (~50 attendees).

37. **Starking**, **M.D.**, T. Rice, K. Terwilliger, and Northeast Fish & Wildlife Diversity Technical Committee. 2024. Climate Change Threats on the 2023 Northeast Regional Species of Greatest Conservation Need (RSGCN). Northeast Association of Fish and Wildlife Agencies Annual Conference. Hyannis, MA. (~50 attendees).

36. **Starking**, **M.D.**, T. Rice, K. Terwilliger, and Northeast Fish & Wildlife Diversity Technical Committee. 2024. Keys to Northeast Regional Conservation: Harnessing Regional Species of Greatest Conservation Need (RSGCN) Data to Inform Conservation Planning. Northeast Association of Fish and Wildlife Agencies Annual Conference. Hyannis, MA. (~150 attendees).

35. Burgio, K.R., H. Higgins, A. Lubeck, **M.D. Starking**, K. Cruz, A. Farrell, E. Murley, C. Arndtsen, T. Melvin, T. Rice, K. Terwilliger, and M.D. Staudinger. 2024. A Review of the Northeast Regional Species of Greatest Conservation Needs' Biological Responses to Support the 2025 Revisions of the State Wildlife Action Plans. Northeast Association of Fish and Wildlife Agencies Annual Conference.

34. **Starking, M.D.** 2024. Neurodivergent in Wildlife. Oral presentation at Michigan Wildlife Conference, April 2024. (~50 attendees).

33. **Starking, M.D**. and Roloff, G.J. 2023. Alternative Silviculture Treatments and the Influence on White-tailed Deer Behavior. The Wildlife Society Annual Conference. Nov. 2023. Louisville, KY. (~70 attendees).

32. **Starking**, **M.D.**, T. Rice, and K. Terwilliger. 2023. The 2023 Northeast Regional Species of Greatest Conservation Need – A Collaborative Tool for Regional

Conservation. The Wildlife Society Annual Conference. Nov. 2023. Louisville, KY. (~70 attendees).

31. Liberati, M., A. Kujawa, G. Sanchez, **M.D. Starking**, and C. Wilton. 2023. Conduct Yourself Inclusively: Developing a Code of Conduct and making it integral to organizational culture. The Wildlife Society Annual Conference. Nov. 2023. Louisville, KY. (~70 attendees).

30. Burgio, K.R., H. Higgins, A. Lubeck, **M.D. Starking**, K. Cruz, A. Farrell, E. Murley, C. Arndtsen, T. Melvin, T. Rice, K. Terwilliger, and M.D. Staudinger. 2023. A Review of the Northeast Regional Species of Greatest Conservation Needs' Biological Responses and Vulnerability to Support the 2025 Revisions of the State Wildlife Action Plans. The Wildlife Society Annual Conference. Nov. 2023. Louisville, KY. (~70 attendees).

29. Burgio, K.R., K. Cruz, A. Farrell, E. Murley, H. Higgins, A. Lubeck, T. Melvin, T. Rice, **M.D. Starking**, K. Terwilliger, and M.D. Staudinger. 2023. Biological Responses and Vulnerability of at-risk Vernal Pool Species to Climate Change. The Wildlife Society Annual Conference. Nov. 2023. Louisville, KY. (~200 attendees Poster Session).

28. Rice, T. Monegan, **M.D**. **Starking,** & K. Terwilliger. 2023. Technical Services Update: September 2023; RSGCN & RCN 2.0. NEAFWA's Northeast Fish and Wildlife Diversity Technical Committee Annual Meeting. September 2023. Providence, RI. (~25 attendees).

27. Burgio, K.R., H. Higgins, A. Lubeck, K. Cruz, A. Farrell, E. Murley, **M.D. Starking,** T. Melvin, T. Rice, K. Terwilliger, & M.D. Staudinger. 2023. Biological Responses & Vulnerability of at-risk Vernal Pool Species to Climate Change. Northeast Association of Fish and Wildlife Agencies Annual Conference. April 2023. Hershey, PA. (~70 attendees Poster Session).

26. **Starking, M.D**., T. Monegan Rice, & K. Terwilliger. 2023. 2023 Regional Species of Greatest Conservation Need. Landscape Conservation Symposium, Northeast Association of Fish and Wildlife Agencies Annual Conference. April 2023. Hershey, PA. (~50 attendees).

25. **Starking, M.D**., T. Monegan Rice, & K. Terwilliger. 2023 Regional Conservation Synthesis. Landscape Conservation Symposium, Northeast Association of Fish and Wildlife Agencies Annual Conference. April 2023. Hershey, PA. (~50 attendees).

24. **Starking, M.D**., T. Monegan Rice, D. Drummey, & K. Terwilliger. 2022. Technical Services Update: September 2022; RSGCN Tools. NEAFWA's Northeast Fish and Wildlife Diversity Technical Committee Annual Meeting. September 2022. Logan, WV. (~25 attendees).

23. **Starking, M.D**. and Roloff, G.J. 2021. White-tailed Deer Use in Northern Hardwood Forests. Northern Hardwood Silviculture Conference, Virtual. Jun 2021. (~75 attendees).

22. **Starking, M.D.** & Carrie Tansy. Wildlife Friendly Erosion Control. U.S. Fish & Wildlife Virtual Webinar. July 2021. (~75 attendees).

21. **Starking, M. D.**, Montgomery, R.A., Walters, M., G.J. Roloff. Hardwood Forest Management and Regeneration: Wildlife response matters. Michigan State University Graduate Student Organization Virtual Conference, Feb. 2021. (~60 attendees).

20. **Starking, M.D.**, Montgomery, R.A., Walters, M., G.J. Roloff. Hardwood Forest Management and Regeneration: Wildlife response matters. Midwest Fish and Wildlife Virtual Conference, Feb 2021. (~60 attendees).

19. **Starking, M.D**. and Roloff, G.J. 2019. Northern hardwood research: Wildlife Update. Safari Club International: Novi Chapter. Jun 2019. Novi MI. (~20 attendees).

18. **Starking, M.D**. and Roloff, G.J. 2019. Do individual student personality traits influence group learning? Michigan State University, The Graduate School Teaching-as-Research poster presentation. April 2019, East Lansing, MI. (~60 attendees).

17. **Starking, M.D**. and Roloff, G.J. 2019. Do individual student personality traits influence group learning? Program for All-Network Teaching-As-Research Presentations. April 2019, CIRTL All-Network Teaching-as-Research Presentations online. (~60 attendees).

16. **Starking, M.D**. and Roloff, G.J. 2019. Examining Trends in Mammal Communities with Camera Traps in Northern Hardwood Forests, Michigan. Oral presentation at Michigan Fish and Wildlife Conference, March 2019, Gaylord, MI. (~50 attendees).

15. **Starking, M.D**. and Roloff, G.J. 2019. Camera Trap Efficacy for Determining Mammal Occupancy in Northern Hardwood Forests, Michigan. Midwest Fish and Wildlife Conference, January 2019, Cleveland, OH. (~60 attendees).

14. **Starking-Szymanski, M.D**. and Roloff, G.J. 2018. Mustard Extraction as a Technique for Quantifying Occupancy and Abundance of Invasive Earthworms. Michigan Chapter - Wildlife Society Conference. Gaylord, MI. Mar. 16. (~60 attendees).

13. Roloff, G.J., and **M.D. Starking**. 2018. Northern hardwood research: Wildlife Update. Professional Development Training Michigan Department of Natural Resources, Wildlife Division and Forest Resources Division, Traverse City, MI. Jan 24. (~40 attendees).

12. Rybarczyk, G., S. Banerjee, and **M.D. Szymanski**. 2016. "Pathways to happiness: a comparative study linking Twitter and contextual factors" Paper presented at Mobile Tartu, June 29-July 3, 2016, Tartu, Estonia.

11. **Szymanski, M.D**., Smith, M., Davis, S., Gibala, W., & Yoder-Nowak, T. Overwintering Habits of Juvenile Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National Wildlife Refuge, Saginaw, MI, USA. Poster presentation at Meeting of the Minds Research Conference, May 2016, Flint, MI

10. **Szymanski, M.D**., Smith, M., Davis, S., Gibala, W., Hughes, K., Taylor, J., Warda, M., & Yoder-Nowak, T. Thermoregulation in Juvenile Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National Wildlife Refuge, Saginaw, MI, USA. Poster presentation at Meeting of the Minds Research Conference, May 2016, Flint, MI.

9. **Szymanski, M.D.** & Yoder-Nowak, T. Examining Habitat Variables of Juvenile Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National Wildlife Refuge, Saginaw, MI, USA. Oral presentation at Midwest Fish and Wildlife Conference, January 2016, Grand Rapids, MI.

8. **Szymanski, M.D**., Smith, M., Davis, S., Gibala, W., & Yoder-Nowak, T. Overwintering Habits of Juvenile Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National

Wildlife Refuge, Saginaw, MI, USA. Poster presentation at Midwest Fish and Wildlife Conference, January 2016, Grand Rapids, MI.

7. **Szymanski, M.D**., Smith, M., Davis, S., Gibala, W., Hughes, K., Taylor, J., Warda, M., & Yoder-Nowak, T. Thermoregulation in Juvenile Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National Wildlife Refuge, Saginaw, MI, USA. Poster presentation at Midwest Fish and Wildlife Conference, January 2016, Grand Rapids, MI.

6. **Szymanski, M.D**., Smith, M., Davis, S., Gibala, W., & Yoder-Nowak, T. Microhabitat Use and Movement Patterns of Headstarted Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National Wildlife Refuge, Saginaw, MI, USA. Oral presentation at University of Michigan –Flint Student Research Conference, March 2015, Flint, MI.

5. **Szymanski, M.D.,** Smith, M., Davis, S., Gibala, W., & Yoder-Nowak, T. Thermoregulation Patterns in Headstarted Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National Wildlife Refuge, Saginaw, MI, USA. Poster presentation at University of Michigan –Flint Student Research Conference, March 2015, Flint, MI.

4. **Szymanski, M.D.,** Smith, M., Davis, S., Gibala, W., & Yoder-Nowak, T. Thermoregulation Patterns in Headstarted Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National Wildlife Refuge, Saginaw, MI, USA. Poster presentation at Midwest Fish and Wildlife Conference, February 2015, Indianapolis, IN.

3. **Szymanski, M.D**. Smith, M., Davis, S., Gibala, W., & Yoder-Nowak, T. Microhabitat Use and Movement Patterns of Headstarted Blanding's Turtles (*Emydoidea blandingii*) at Shiawassee National Wildlife Refuge, Saginaw, MI, USA. Oral presentation at Midwest Fish and Wildlife Conference, February 2015, Indianapolis, IN.

2. **Szymanski, M.D.** Examining Blanding's Turtle Habitat Using Remote Sensing and GIS: A study in the Shiawassee National Wildlife Refuge, Saginaw, Michigan. Oral presentation at GIS Symposium, December 2014, Flint, MI.

1. **Szymanski, M.D**. Blanding's Turtle (*Emydoidea blandingii*) Habitat Analysis, Potential Factors Affecting Survival at Release Sites of Headstarted Turtles. Poster presentation for GIS II, Dept. Earth and Resource Science, April 2014, Flint, MI.

AWARDS, GRANTS

2024 Multi-State Conservation Grant – Association of Fish and Wildlife Agencies – Co-authored for Northeast Association Fish and Wildlife Agencies ($193,547.65)
2024 Past President Award, Michigan Chapter of the Wildlife Society
2024 Hazel and Karen Kiser Scholarship for Returning Adults – Michigan State University ($3,700)
2021 Charles Guenther Memorial Scholarship, Department of Forestry – Michigan State University ($1,100)
2020 Joseph G. Schotthoefer Memorial Student Award, Safari Club International, Michigan Involvement Committee ($1,500)
2019 Joseph G. Schotthoefer Memorial Student Award, Safari Club International, Michigan Involvement Committee ($2,000)
2019-20 The Annual Joseph Laurence Maison Fellowship for Wildlife Conservation, Department of Fisheries and Wildlife – Michigan State University ($2,500)

2019 Outstanding Wildlife Graduate Student Award, North Central Section – The Wildlife Society ($500)
2019 Janice Lee Fenske Memorial Award, American Fisheries Society ($750)
2018-19 Future Academic Scholars in Teaching (FAST) Fellow ($2,000)
2018 Joseph G. Schotthoefer Memorial Student Award, Safari Club International, Michigan Involvement Committee ($1,870)
2017 Joseph G. Schotthoefer Memorial Student Award, Safari Club International, Michigan Involvement Committee ($2,250)
2017 Summer Critical Needs Fellowship, Michigan State University ($6,000)
2016 Janice Lee Fenske Memorial Award Finalist, American Fisheries Society
2015 Eugene Doc Studier Student Research Fund, University of Michigan-Flint
2015 Janice Lee Fenske Memorial Award Finalist, American Fisheries Society
2014-15 Frances Ann Frazier Student Travel Scholarship, University Michigan-Flint
2014 Murchie Memorial Fund, University of Michigan-Flint
2014 Graduate Research Funds, University of Michigan-Flint

SERVICE

2024 – Current Past-Chair, Disabilities, Neurodivergence, and Allyship Working Group – The Wildlife Society*
2024 – 2026 Chair-Elect, Forestry and Wildlife Working Group, The Wildlife Society*
2023 – 2025 The Wildlife Professional Editorial Board representative for Forestry and Wildlife Working Group
2023 – 2024 Past-President, The Wildlife Society – Michigan Chapter*
2022 – 2023 President, The Wildlife Society – Michigan Chapter*
2022 – Current Society for Conservation Biology member
2021 – 2022 President-Elect, The Wildlife Society – Michigan Chapter*
2020-2021 North Central Section Graduate Student Representative*
2020 – 2024 Secretary, Forestry and Wildlife Working Group, The Wildlife Society*
2019 – 2021 CAN/Secretary/Website Manager, The Wildlife Society – Michigan Chapter*
2019 The Wildlife Society Bulletin, Reviewer
2018 – 2022 Conservation Affairs Network, The Wildlife Society – Michigan Chapter
2018 – 2020 Evolutionary Biology, and Behavior Seminar Committee, Michigan State University
2018 – 2019 Executive Board Member, The Wildlife Society – Michigan Chapter*
2017 – 2020 Graduate Student Organization Webmaster, Michigan State University*
2017 Ecological Society of America - Student Section Travel Award Reviewer
2015 – Current The Wildlife Society member, including:
North Central Section
Northeast Section
Michigan Chapter
Forestry and Wildlife Working Group
Inclusion, Diversity, Equity & Awareness Working Group
Biological Diversity Working Group
Climate Change Working Group
2015 North American Spring Migration Count Volunteer, Davison, MI
2013 Vernal Pool Assessment Volunteer, Michigan Department Natural Resources
2012 Conservation Education Outreach, 2nd graders, Bishop Kelley School, Lapeer MI.

*Denotes elected positions

MENTORING

1. William Gibala. field technician, University of Michigan - Flint
2. Mallorey Smith, field technician, University of Michigan - Flint
3. Sasha Davis, field technician, University of Michigan – Flint*
4. Morgan Warda, field technician, University of Michigan – Flint*
5. Krista Hughes, field technician, University of Michigan - Flint
6. Jessica Taylor, field technician, University of Michigan - Flint
7. Matt Leone, lab technician, Michigan State University
8. Leah Wojtach, lab technician, Michigan State University
9. Caleb Burden, field technician, Michigan State University*
10. Greg Payter, field and lab technician, Michigan State University
11. Joe (Tim) Oehrli, lab technician, Michigan State University
12. Jake Brand, lab technician, Michigan State University
13. Erin Zimmer, lab technician, Michigan State University
14. Miranda Millikin, lab technician, Michigan State University
15. Marcos Holland, lab technician, Michigan State University
16. Eric Rafsnider, field technician, Michigan State University*
17. Johanna Becker, Undergrad independent study, field technician, Michigan State University
18. Eleanor Di Girolamo, field and lab technician, Michigan State University*
19. Garrett Knowlton, field and lab technician, Michigan State University
20. Lauren Emerick, field technician, Michigan State University
21. Danny Victor, field technician, Michigan State University*
22. Reine Sovey, field technician, Michigan State University
23. Trent Adams, Graduate student, University of Michigan – Flint*
24. Sam Lazar, Graduate student, University of Michigan – Flint

*Denotes students I have written recommendation letters for

ORGANIZED SYMPOSIA

Applying Forestry Practices to Biodiversity Conservation: Challenges and Opportunities, co-organizer, The Wildlife Society Annual Conference 2025, Oct 6, 2025.

Diversity, Equity, and Inclusion in Wildlife, co-organizer, Michigan Chapter of The Wildlife Society Spring Conference 2024, Apr 17, 2024.

Diverse Perspectives in Conservation Panel Discussion, co-organizer, Michigan Chapter of The Wildlife Society Spring Conference 2021, Mar 24, 2021.

Navigating Conservation during a Global Pandemic Panel Discussion, co-organizer, Michigan Chapter of The Wildlife Society Spring Conference 2021, Mar 25, 2021.

Forestry and Wildlife Intertwined, co-organizer, 81st Annual Midwest Fish & Wildlife Conference, Virtual, Feb 1-3, 2021.

Big Ideas and Bold Actions for 21st Century Wildlife Conservation, co-organizer, 25th Annual Conference of The Wildlife Society, Cleveland, Ohio, Oct. 7-11, 2018.

FACILITATED WORKSHOPS

UM-Flint GEMS: Girls in Engineering, Math, & Science June 2017

- BIOLOGY: wildlife tracking, animal behavior, radio tracking
    - Developed and co-presented a workshop for 7-9th graders on current techniques in conservation research, demonstrated GPS & GIS technologies, and activities included hands-on radio telemetry animal tracking.

For-Mar Nature Preserve & Arboretum Bio-blitz Workshop Sept. 2015

- Turtles and Telemetry Workshop for School Groups
    - Developed and presented a workshop on current techniques in conservation research, demonstrated GPS & GIS technologies, animal marking, and identification; activities included hands-on radio telemetry animal tracking.

Super Science Friday Workshop May 2015

- "Track that Turtle!" Workshop for 7th & 8th grade students
    - Developed and presented a workshop on current techniques in conservation research, demonstrated GPS & GIS technologies, animal marking; activities included radio telemetry animal tracking.

CONTINUED PROFESSIONAL TRAINING

NSC Defensive Driving Course Ed 10X, National Safety Council, Jun 2021.

Associate Wildlife Biologists® - The Wildlife Society, Jan. 2021

Michigan State University Race Dialogues. Virtual. Feb. – Apr. 2021.

Michigan State University Leadership Academy lecture series. Virtual. Jan. – Apr 2021.

Multi-species Occupancy Modelling Workshop. The Wildlife Society Conference 2020. Oct 2020.

MSU Knight Center of Journalism Science Communication Workshop. Michigan State University. Jul – Aug 2020.

An Introduction to Evidence-Based Undergraduate STEM Teaching. Massive Online Open Course. Center for the Integration of Research, Teaching and Learning. Sep – Dec 2017.

University Graduate Certification in College Teaching Institute. The Graduate School, Michigan State University. June 2017.

Habitat Management Strategies for Ruffed Grouse and Woodcock: A Short Course for Foresters and Natural Resources Professionals. Presented by the Ruffed Grouse Society/American Woodcock Society in partnership with the Michigan Department of Natural Resources Wildlife Division. March 2016.

Writing Philosophy of Teaching Statements. Jacob Blumner, Associate Professor of English and Director of the Marian E. Wright Writing Center. University of Michigan – Flint. January 2016.

CORE SKILLS

Computer Programs: R (Studio, Markdown, Shiny), ArcGIS, Avenza maps, Drupal, Website development, Pix4D, Microsoft Suite, Google Suite, and several website development applications.

Analyses: Frequentist and Bayesian statistics and modeling, including population and community modeling, spatial analyses, species distribution modeling, occupancy modeling, Likert scale analyses, and other biodiversity metrics.

Field Skills: Species identification (animal & plant), camera trapping, certified FAA part 107 Drone pilot for remote sensing, vernal pool assessment, vegetation sampling, behavior observations, radio-telemetry, GPS (Avenza, Juniper, Trimble, Garmin systems), ear tagging, mist netting, animal trapping (terrestrial & aquatic), turtle shell notching, turtle palpating, automated recording units (ARUs), point counts, line transects, animal tracks.