



Noelle E. Thompson Curriculum Vitae



Boone and Crockett Quantitative Wildlife Center
Michigan State University
Department of Fisheries and Wildlife
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Primary Research Interests

Wildlife health, conservation, and management and infectious disease ecology
Bridging the gaps among wildlife research, management, and policy

Education

Michigan State University (Aug 2017–Current)

Doctor of Philosophy, Fisheries and Wildlife

Graduate Specialization: Fish and Wildlife Disease Ecology and Conservation Medicine

Research Advisors: Dr. William Porter, Dr. David Williams

Dissertation: *Management of Chronic Wasting Disease in Michigan White-tailed Deer*

Cumulative GPA: 4.0

University of Illinois at Champaign-Urbana (Aug 2015–May 2017)

Master of Science, Animal Sciences

Research Advisors: Dr. Jan Novakofski, Dr. Nohra Mateus-Pinilla

Thesis: *Effects of a Long-term Removal Program on White-tailed Deer Habitat Use and Spatial Structure*

Cumulative GPA: 3.94

University of Illinois at Champaign-Urbana (2011- 2015)

Bachelor of Science, Animal Sciences

Minor: Business

Institutional Honors: Highest Honors

Cumulative GPA: 3.84; Major GPA: 4.0

Honors & Awards

2020	Theodore Roosevelt Conservation & Environmental Leadership Fellowship Janice Lee Fenske Memorial Award Finalist Wildlife Disease Working Group Conference Registration Grant
2019	Council of Graduate Students Professional Development Award Joseph G. Schotthoefer Memorial Student Award, Safari Club Int.
Spring 2016	List of Teachers Ranked as Excellent by their Students
2011–2017	Dean's List Top 10% of UIUC Animal Sciences' Class
2012–2014	American Society of Animal Science Scholastic Achievement Award
2011–2015	Renewable Freshman Recognition Scholarship, four-year commitment

Research Experience

Graduate Research Assistant

Dept. of Fisheries and Wildlife, [Boone and Crockett Quantitative Wildlife Center](#), MSU

Aug 2017–Current

Dissertation: *Management of Chronic Wasting Disease in Michigan White-tailed Deer*

I am devising and evaluating fine-scale management strategies for CWD in free-ranging white-tailed deer populations using an agent-based epidemiological model. Within this model, I am addressing the uncertainty and variability associated with deer and disease management and the social acceptance and cost-efficiency of management approaches.

Illinois Natural History Survey, [Wildlife Disease Ecology Lab](#), UIUC

Aug 2015–May 2017

Thesis: *Effects of White-tailed Deer Removal on Habitat Use and Spatial Clustering in Robert Allerton Park*

I assessed the effects of a long-term deer removal program on deer habitat use and spatial clustering in UIUC-owned Robert Allerton Park using spatial and statistical techniques. The goal of this study was to evaluate the effects of a deer removal program on space use by local deer with the intention of using this information to inform deer and disease management decisions.

Undergraduate Research Assistant

Dept. of Animal Sciences, UIUC

[Laboratory on Energy Metabolism](#) (Jan 2014–May 2015)

Assisted in the investigation of how nutrients interact with the gastrointestinal tract to change overall physiology and behavior through changes in absorption and hormonal and neural signaling. Included assisting in immunohistochemistry techniques, surgeries, pre- and post-operational animal care.

[Genomics Research Laboratory](#) (March 2014–May 2014)

Assisted in the preparation and analysis of genetic material of diverse mammalian species to support conservation efforts.

Illinois Natural History Survey, UIUC

[Wildlife Disease Ecology Lab](#) (Jan 2014–May 2015)

Assisted researchers with sample preparation and genetic analysis for genetic and epidemiologic research involving chronic wasting disease in white-tailed deer. Included performing DNA extraction, PCR, and gel electrophoresis.

Teaching Experience

Graduate Teaching Assistant, Dept. of Animal Sciences, UIUC
Animal Science 224–Animal Reproduction and Growth

Jan 2016–May 2017

Advanced Training

Sustaining Healthy Wildlife Populations, Wildlife Disease Association & UC Davis, Aug 2019

Conservation Medicine, One Health, and Wildlife Diseases, University of Georgia, Nov 2018

White-tailed deer handling, chemical immobilization, and rectoanal mucosa-associated lymphoid tissue (RAMALT) biopsy collection training, Michigan Department of Natural Resources Wildlife Division, Jan 2018

Free-Ranging Wildlife Health, Disease and Mortality Investigation, The Wildlife Society, Sept 2017

Wildlife Handling and Chemical Immobilization for Wildlife Professionals, Global Wildlife Resources, Aug 2016

Internship Experience

USGS National Wildlife Health Center, July 2016–Jan 2018

Student Communications Intern

I published a peer-reviewed [fact sheet](#) for snake fungal disease for the National Wildlife Health Center website. Fact sheets involve condensing current literature and research into a short flyer that is comprehensible to the public.

Memphis Zoo Conservation Research Department, May 2015–Aug 2015

Conservation and Biodiversity Intern

I assessed the potential for using fecal near-infrared spectroscopy to distinguish between age and physiological status in African elephants. I participated in the research department's weekly meetings that included discussing topics on related research and addressing the team's research progress throughout the lab. I presented my project and findings to the research department at the end of my internship.

International Experience

African Wildlife Discovery Study Tour to South Africa, Summer 2013

Study of wildlife ecology in South Africa, including: tracking and identifying wildlife, observing hierarchical systems, field observation of overpopulation effects, observing conservation efforts, and interactive visits to wildlife rehabilitation centers, zoos, sanctuaries, and game reserves.

There was a focus on the different conservation and human-wildlife conflict mitigation efforts occurring in the country conducted by rehabilitation centers, game reserves, and education in wildlife park, zoo, and neighborhood settings.

Volunteer Experience

Urban Coyote Research, Field work volunteer, Feb 2016–May 2017

Assisted with live-trapping, anesthetizing, radio-collaring, tracking, evaluating and collecting samples from coyotes and other mesopredators. Assisted with locating natal dens, microchipping, weighing, and collecting samples from coyote pups.

Animals for Awareness, Wildlife educator and caretaker, May 2008–2015

Cared for and handled numerous rescued exotic species. Assisted and educated through community outreach programs and other similar programs.

Publications and Presentations

2020 **Thompson NE**, Christensen SA, Williams DM, Porter WF. Evaluating the complexity and uncertainty associated with management of chronic wasting disease. Oral presentation at *The Wildlife Society Annual Conference*, 2 October 2020. Virtual.

Thompson NE, Williams DM, Christensen SA, Butts DJ, Murillo M, Porter WF. Agent-based modeling: the new frontier for combating chronic wasting disease. Oral presentation at the *80th annual Midwest Fish and Wildlife Conference*, 27 January 2020. Springfield, IL.

2019 **Thompson NE**, Williams DM, Porter WF. Using agent-based modeling to assess management strategies for chronic wasting disease. Oral presentation at the *2019 Michigan Chapters of the Wildlife Society and American Fisheries Society Joint Chapter Meeting*, 13 March 2019. Gaylord, MI.

Thompson NE, Christensen SA, Williams DM, Porter WF. Using agent-based modeling to improve our understanding of chronic wasting disease. Poster presentation at the *68th annual Wildlife Disease Association Conference*, 4 August 2019. Tahoe City, CA.

Cook J*, **Thompson NE***, Trudeau JK*. The challenges of communicating chronic wasting disease research in Michigan. 2019. *MSU Spotlight Journal*, pp. 25-27.

Thompson NE, Christensen SA, Williams DM, Porter WF. Using agent-based modeling to improve our understanding of chronic wasting disease. Poster presentation at the *Joint Annual Conference of the American Fisheries Society and the Wildlife Society*, 29 September 2019. Reno, NV.

Thompson NE. Western Watersheds Project v. Grimm *in* L. Kisonak, editor. 2019. *Wildlife Law Call Winter 2018-2019*. Association of Fish & Wildlife Agencies, Washington DC, USA.

Thompson NE. United States v. Donaldson *in* L. Kisonak, editor. 2019. *Wildlife Law Call Winter 2018-2019*. Association of Fish & Wildlife Agencies, Washington DC, USA.

2018 **Thompson NE**, Lankau EW, and Rogall GM. 2018. Snake fungal disease in North America—U.S. Geological Survey Updates: U.S. Geological Survey Fact Sheet 2017–3064, 4 p., <https://doi.org/10.3133/fs20173064>.

Williams DM, **Thompson NE**, Trudeau JK, Cook JD. Innovative research applications for CWD management. Invited oral presentation at the *2018 Michigan Boone and Crockett Partners Meeting*, 20 June 2018. East Lansing, MI.

Thompson NE, Williams DM, Porter WF. Innovative research for CWD management. Invited oral presentation at the *Michigan Department of Natural Resources-Michigan Department of Agriculture and Rural Development 6th Annual Joint Cervid Meeting*, 16 August 2018. Gaylord, MI.

2017 **Thompson NE**, Green ML, Griesbaum J, Beccue NJ, Ruiz MO, Mateus-Pinilla NE, Novakofski JE. White-tailed deer hunting and habitat use in Allerton Park. Poster presentation at the *2017 Midwest Ecology and Evolution Conference*, 18 March 2017. Urbana-Champaign, IL.

2016 **Thompson NE**, Green ML, Griesbaum J, Beccue NJ, Mateus-Pinilla NE, Novakofski JE. White-tailed deer hunting and habitat use in Allerton Park. *52nd Annual Meeting of the Illinois Chapter of The Wildlife Society*, 10 April 2016, Makanda, IL.

2015 Frisbie LA*, **Thompson NE***, Anchor GC*, Brandt AL, Green ML, Shelton P, Mateus-Pinilla NE, Novakofski JE. Chronic wasting disease tissue sampling. Poster presentation at the *51st Annual Meeting of the Illinois Chapter of The Wildlife Society*, 12 April 2015. Champaign, IL.

* Equal contribution by authors

Manuscripts in Review or Preparation

Thompson NE, MHJ Huang, SA Christensen, S Demarais. Managing the fire: Wildlife agency responses to chronic wasting disease in free-ranging cervids. (*Submitted*)

Thompson NE, DJ Butts, M Murillo, SA Christensen, WF Porter, DM Williams. An individual-based approach for modeling chronic wasting disease. (*In prep*)

Thompson NE, ML Green, MO Ruiz, MG Buhnerkempe, RE Warner, JE Novakofski, and NE Mateus-Pinilla. White-tailed deer removal affects habitat and space use. (*In prep*)

Thompson NE, ML Green, CM Nixon, RE Warner, MO Ruiz, JE Novakofski, and NE Mateus-Pinilla. White-tailed deer (*Odocoileus virginianus*) in an insular natural community within a Midwestern agricultural region: a review. (*In prep*)

Butts DJ, **NE Thompson**, SA Christensen, DM Williams, and MS Murillo. Data-driven training of Langevin and agent-based models for animal movement. (*In prep*)

Affiliations

The Wildlife Society, 2015-Current

- Wildlife Disease Working Group, Elected Student Representative 2020-2022, Current
- North-Central Regional Chapter, Current
- Michigan Chapter, Conservation Affairs Committee, Current
- Illinois Chapter, 2015-2017

Wildlife Disease Association, 2017-Current

- Michigan Student Chapter, Elected treasurer & fundraising chair, Current
- University of Illinois Chapter, 2017

*MSU Women in Nature Network, 2018-Current**MSU Fisheries and Wildlife Graduate Student Organization, 2017-Current*

- President, 2020-2021
- Symposium coordinating committee, Current
- Natural Resources space use committee, Current
- Vice-president, 2019-2020

*Proceedings of the National Woodcock Symposium, Reviewer, 2018**Illini Wildlife and Conservation Club, 2012-2015*

- President, 2014-2015
- Treasurer, 2013-2014

Professional Development

Multistate CWD Consortium, Michigan State University and University of Wisconsin-Madison, co-host, co-facilitator, and grant-writing assistance, 2019-2024.

The Seven C's of the Social Change Model of Leadership Workshop Series, Leadership Academy, MSU, Jan 2020-March 2020.

Leadership Development for Early Career Professionals, Midwest Fish and Wildlife Conference, Jan 2020.

Training Researchers to Inform Policy, Scholars Strategy Network, Nov 2019.

Getting the Most Out of Professional Meetings, Jim Heffelfinger, Boone and Crockett University Programs, Oct 2018.

Navigating the PhD: Managing Time and Academic Relationships, Writing Center Workshop, MSU, July 2018.

Navigating the PhD: Writing Processes & Strategies for Academic Writing, Writing Center Workshop, MSU, July 2018.

Time and Task Management Strategies, Dr. Rique Campa, Graduate Student Organization Workshop, MSU, April 2018.

Technical Skills

Proficient with Microsoft Access, Excel, PowerPoint, Word, ArcGIS, EndNote, Grams IQ, JMP9, Python, R/RStudio, SAS 9.4, SigmaPlot

Polymerase Chain Reaction, DNA Isolation, Necropsy, Wildlife Capture

Courses

Biology

Intro to Animal Sciences, Cells, Metabolism and Genetics, Anatomy and Physiology, Animal Nutrition, Animal Reproduction and Growth, Mammalogy, Animal Behavior

Ecology

Intro to Natural Resources & Environmental Sciences, Wild Animal Planet, Contemporary Issues in Agricultural, Consumer & Economic Sciences

Epidemiology

Principles & Methods in Epidemiology, Parasitology & Epidemiology, Health Applications in GIS, Wildlife Ecosystem Health, Fish and Wildlife Disease, Wildlife Disease Ecology

Conservation

Wildlife Conservation in the 21st Century, World Animal Resources, Zoo Animal Conservation, Conservation Medicine

Leadership, Professional Development

Public Speaking, Principles of Composition, Leadership in Natural Resources Management, Strategies for Becoming a Productive Writer, Uncertainty and Adaptive Management of Natural Resource Systems

Statistics

Applied Statistical Methods, R Essentials for Natural Resource Professionals, Statistical Methods in Ecology & Evolution, Spatial Data Analysis, Introduction to Agent-Based Modeling

Business

Calculus for Business, Microeconomics, Fundamentals of Accounting, Corporate Finance, Mgmt. & Organizational Behavior, Principles of Marketing

Other Courses

Wildlife Law, Chemistry I&II, Biochemistry, Microbiology, Organic Chemistry, Physics I&II
Population Genetics, Contemporary Animal Issues

References

Nohra E. Mateus-Pinilla, DVM, Ph.D.

Wildlife Veterinary Epidemiologist & Associate Professor
Department of Animal Sciences and Veterinary Medicine
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