

# Dr. Sonja Ann Christensen

## Contact Information

Assistant Professor – Fixed Term, Department of Fisheries and Wildlife;  
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## Education

- Ph.D., Department of Fisheries and Wildlife, Specialization in Disease Ecology; May 2018. Michigan State University.
- M.Sc., Wildlife and Fisheries Science; May 2010. The Pennsylvania State University.
- B.Sc., Major: Biology, Ecology emphasis; Minor: Geography; December 2005. Minnesota State University, Mankato.

## Professional Appointments

- **Academic**

**Assistant Professor** – Faculty, Fisheries and Wildlife Department, Michigan State University, 480 Wilson Rd., East Lansing, Michigan. January 1 2022 – Present.  
*Assignment:* 40% Research, 30% Teaching, 25% Outreach, 5% Service. 9-month appointment. Current assignment activities are centered on wildlife disease ecology and epidemiology, population ecology, and wildlife management, with a special focus on population impacts of disease on ungulate species and the role of climate change on wildlife health. Serve as PI to the Christensen Lab where I author or co-author peer-reviewed manuscripts, write proposals to fund research, manage research grants, contracts, and budgets, and supervise and mentor technicians, undergraduate research students, and graduate students. Teaching includes two undergraduate courses each year (two lecture-based, with one that includes a lab-based component) and a study abroad course in South Africa. Outreach program includes serving as the Fish and Wildlife Health Coordinator for the Association of Fish and Wildlife Agencies, Washington D. C. (March 2021 – Present), serving on numerous committees as an academic and AFWA wildlife health expert, and working with partner agencies on outreach initiatives and products. Efforts to support and incorporate diversity, equity, and inclusion are included throughout my assignment areas.

**Academic Specialist** – Faculty, Fisheries and Wildlife Department, Michigan State University, 480 Wilson Rd., East Lansing, Michigan.

*Assignment:* 50% Research, 15% Teaching, 30% Outreach, 5% Service. 9-month appointment. August 2020 – December 2021 (same duties as listed for Assistant Professor).

**Postdoctoral Fellow** – Fisheries and Wildlife Department, Michigan State University, 480 Wilson Rd., East Lansing, Michigan. December 2017 – August 2020.

**Graduate Research Assistant** Fisheries and Wildlife Department, Michigan State University, 480 Wilson Rd., East Lansing, Michigan: August 2013 – December 2017.

**Research Assistant and Teaching Assistant** – University of Montana, Missoula, MT: August 2011 – August 2013. Non-degree.

**Graduate Research Assistant** – The Pennsylvania State University, Pennsylvania Cooperative Fish and Wildlife Research Unit, University Park, Pennsylvania: January 2006 – May 2008.

- **Government**

**Deer and Moose Project leader (statewide supervisor of deer and moose management)** - Massachusetts Division of Fisheries and Wildlife, Westborough, MA: April 2008 – August 2011.

- Conducted research and long-term planning to effectively manage Massachusetts's deer resources. This included setting program priorities and implementing management for ecological and stakeholder goals.
- Prepared Pittman-Robertson Reports for federal fund match for white-tailed deer and moose projects.
- Developed annual antlerless permit allocations and was responsible for processing of deer permits.
- Provided technical guidance, thinking and supervision to district and support staff assigned to deer checking stations.
- Represented DFW as deer project leader through regional conferences, prepared and reviewed Journal articles and advised municipalities, state, and federal agencies as well as the general public and stakeholders.
- Oversaw and permitted captive cervid facilities.
- Functioned as primary biologist for moose management needs.
- Informed stakeholders regarding Division activities.
- Conducted investigation of wildlife diseases including parasitic, viral, bacterial, and prion agents in the Cervidae family, including a funded Chronic Wasting Disease (CWD) surveillance and monitoring program.

**Wildlife Research Biologist Paraprofessional**, Minnesota Department of Natural Resources, Farmland Wildlife Research, Madelia, Minnesota.: November 2004 – January 2006.

## Publications

**Peer-reviewed Articles (20)** \*Graduate student-led papers,

1. Cook, J.D., Rosenblatt, E., Dierenzo, G.V., Campbell Grant, E.H., Mosher, B.A., Arce, F., **Christensen, S.A.**, Ghai, R.R. and Runge, M.C., 2024. One Health collaboration is more effective than single-sector actions at mitigating SARS-CoV-2 in deer. *Nature Communications*, 15(1), p.8677. <https://doi.org/10.1038/s41467-024-52737-0>
2. Strasburg, M. and **Christensen, S.**<sup>#</sup>, 2024. Evaluating the Interaction of Emerging Diseases on White-Tailed Deer Populations Using an Agent-Based Modeling Approach. *Pathogens*, 13(7), p.545. <sup>#Corresponding author</sup> <https://doi.org/10.3390/pathogens13070545>
3. Thompson, N.E.\*<sup>#</sup>, Butts, D.J., Murillo, M.S., O'Brien, D.J., **Christensen, S.A.**, Porter, W.F. and Roloff, G.J., 2024. An individual-based model for direct and indirect transmission of chronic wasting disease in free-ranging white-tailed deer. *Ecological Modelling*, 491, p.110697. <https://doi.org/10.1016/j.ecolmodel.2024.110697>
4. Bartz, J., Benavente, R., Caughey, B., **Christensen, S.**, Herbst, A.J., Hoover, E., Mathiason, C.K., McKenzie, D.I., Morales, R., Schwabenlander, M.D. and Walsh, D.P. 2024. Chronic wasting disease: State of the science. *Pathogens*, 13(2). <https://doi.org/10.3390/pathogens13020138>
5. Thompson, N.E.\*<sup>#</sup>, M.H. Huang, **S.A. Christensen**, and S. Demarais. 2023. Wildlife agency responses to chronic wasting disease in free-ranging cervids. *Wildlife Society Bulletin*, e1435. <https://doi.org/10.1002/wsb.1435>
6. Ufer, D. J.\*<sup>#</sup>, **S. A. Christensen**, E. Pomeranz, and D. L. Ortega. 2023. A behavioral economic assessment of the role of stakeholder preferences in managing an infectious wildlife disease. *Wildlife Society Bulletin*, e1411. <https://doi.org/10.1002/wsb.1411>
7. Ufer, D. J.\*<sup>#</sup>, **S. A. Christensen**, D. L. Ortega, N. Pinizzotto, and K. Schuler. 2022. Stamping out wildlife disease: Are hunter-funded stamp programs a viable option for chronic wasting disease management? *Conservation Science and Practice* 4 (9), e12779. <https://doi.org/10.1111/csp2.12779>
8. Cook, J.\*<sup>#</sup>, D. Williams, W. Porter, and **S. A. Christensen**. 2022. Improved predictions and forecasts of chronic wasting disease occurrence using multiple mechanism dynamic occupancy modelling. *The Journal of Wildlife Management*, 86(7), e22296. <https://doi.org/10.1002/jwmg.22296>
9. Hanley, B. J., Carstensen, M., Walsh, D. P., **Christensen, S. A.**, Storm, D. J., Booth, J. G., Guinness, J., Them, C. E., Ahmed, M. S., & Schuler, K.

2022. Informing Surveillance through the Characterization of Outbreak Potential of Chronic Wasting Disease in White-Tailed Deer. *Ecological Modelling*, 471, 110054. <https://doi.org/10.1016/j.ecolmodel.2022.110054>
10. Butts, D.\* N. Thompson\*, **S. A. Christensen**, D. M. Williams, and M. S. Murillo. 2022. Data-Driven Agent-Based Model Building for Animal Movement Through Exploratory Data Analysis. *Ecological Modelling*, 470, 110001. <https://doi.org/10.1016/j.ecolmodel.2022.110001>
  11. Cook, J.\*, **S. Christensen**, D. Williams, W. Porter, K. Robinson. 2022. An expert-elicited approach to inform proactive risk assessments for infectious wildlife diseases. *Conservation Science and Practice*, e12678. <http://doi.org/10.1111/csp2.12678>
  12. **Christensen, S. A.**, M. Farr, and D. M. Williams. 2021. Assessment and Novel Application of N-mixture Models for Aerial Surveys of Wildlife. *Ecosphere*, 12(8), e03725. <https://doi.org/10.1002/ecs2.3725>
  13. **Christensen, S. A.**, D. M. Williams, W. F. Porter, and B. A. Rudolph. 2021. Spatial variation of white-tailed deer (*Odocoileus virginianus*) population impacts and recovery from epizootic hemorrhagic disease. *Journal of Wildlife Diseases*, 57(1), 82-93. <https://doi.org/10.7589/JWD-D-20-00030>
  14. **Christensen, S. A.**, M. Ruder, D. M. Williams, W. Porter, and D. Stallknecht. 2020. The role of drought as a determinant of emergent hemorrhagic disease in the Eastern United States. *Global Change Biology*. 26(7): 3799-3808 <https://doi.org/10.1111/gcb.15095>
  15. **Christensen, S. A.**, K. Straka, R. Mason. 2020. A New Approach to Combating CWD. Michigan is seeking scientific solutions using collaboration. The Wildlife Professional. *The Wildlife Professional*, 14(2): 51-53.
  16. Carrera, R., W. B. Ballard, P. R. Krausman, J. Devos Jr., M. C. Wallace, S. Cunningham, O. J. Alcumbrac, and **Christensen, S. A.** 2015. Reproduction and nutrition of desert mule deer with and without predation. *The Southwest Naturalist*, 60(4): 285-298.
  17. Krausman, P. R., **Christensen, S. A.**, McDonald J. E., and Leopold B. D. 2014. Dynamics and social issues of overpopulated deer ranges in the United States: a long term assessment. *Journal of California Fish and Game*, 100(3): 434-448.
  18. Wagner, T., Diefenbach, D. R., **Christensen, S. A.**, Norton, A. S. 2011. Using Multilevel Models to Quantify Heterogeneity in Resource Selection. *Journal of Wildlife Management*, 75: 1788 – 1796.
  19. McDonald, J. E., Destefano, S., Gaughan, C., Mayer, M., Woytek, W. A., **Christensen S. A.**, Fuller, T.K. 2011. Survival and harvest-related mortality of white-tailed deer in Massachusetts. *Wildlife Society Bulletin*, 35: 209 – 219.
  20. McDonald, J., **Christensen S.**, Deblinger R., Woytek W. 2009. An alternative to climate change for explaining species loss in Thoreau’s woods. *Proc Natl Acad Sci USA* 106:E28.

### **Book Chapters (2)**

1. Ruder, M. G., and **S. A. Christensen**. 2023. Bluetongue, Epizootic Hemorrhagic Disease, and Cervid Adenoviral Hemorrhagic Disease. Chapter 11, in R. Radcliffe and D. Jessup, editors. *Wildlife Health, Disease, and Conservation*. Johns Hopkins University Press.
2. **Christensen, S. A.** 2020. Leading from the start. Pages 171-173 in W. W. Taylor, A. K. Carlson, A. Bennett, and C. P. Ferreri, editors. *Lessons in Leadership: Integrating Courage, Vision, and Innovation for the Future of Sustainable Fisheries*. American Fisheries Society, Bethesda, Maryland.

### **Published Software (5)**

1. Hanley BJ, Mitchell CI, Them CE, Walter WD, Walsh DP, Jennelle CS, Hollingshead NA, Abbott RC, Kelly JD, Grove DM, Williams D, **Christensen SA**, Ahmed MS, Booth JG, Guinness J, Gagne RB, DiSalvo AR, Fleegle JT, Rosenberry CS, Miller LA, & Schuler KL. 2023. Chronic wasting disease surveillance optimization software n×2 [Software]. Cornell University Library eCommons Repository. DOI: <https://doi.org/10.7298/84md-wq95>.
2. Hanley, B. J., Them, C. E., Mitchell, C. I., Carstensen, M., Walsh, D. P., **Christensen, S. A.**, Storm, D. J., Booth, J. G., Guinness, J., Abbott, R. C., Ahmed, M. S., & Schuler, K. 2022. SLEI Model Software [Software]. Cornell University Library eCommons Repository. doi.org/10.7298/csew-h225.2
3. Hanley, B. J., Them, C. E., Mitchell, C. I., Carstensen, M., Walsh, D. P., **Christensen, S. A.**, Storm, D. J., Booth, J. G., Guinness, J., Abbott, R. C., Ahmed, M. S., & Schuler, K. 2022. SEI Model Software [Software]. Cornell University Library eCommons Repository. doi.org/10.7298/csew-h225
4. Hanley, B., Mitchell, C. I., Abbott, R., Hollingshead, N., Carstensen, M., Walsh, D., **Christensen, S.**, Storm, D., Kelly, J., Miller, L., & Schuler, K. 2022. Wildlife Disease Hazard Software [Software]. Cornell University Library eCommons Repository. doi.org/10.7298/w4rn-xq85
5. Hanley, B., Mitchell, C. I., Abbott, R. C., Hollingshead, N., Carstensen, M., Walsh, D., **Christensen, S.**, Storm, D., Kelly, J., Them, C., Ahmed, S., Miller, L., & Schuler, K. 2022. Regional Wildlife Disease Hazard Software [Software]. Cornell University Library eCommons Repository. doi.org/10.7298/hqg5-ac08

### **Pre-print articles:**

1. Cook J.D., E. Rosenblatt, G. Drenzo, Campbell Grant E.H., B.A. Mosher, F. Arce, **S. Christensen**, R.R. Ghai, M.C. Runge. 2023. Cross-sector collaboration is more effective than single sector actions at mitigating SARS-CoV-2 in white-tailed deer. bioRxiv; DOI: [10.1101/2023.10.13.562192](https://doi.org/10.1101/2023.10.13.562192).

### **Technical Reports (4)**

1. S. Gurney\* and S. Christensen. 2023. Influence of deer harvest regulations on antlerless harvest, abundance, and sex and age composition: implications for managing deer in the face of chronic wasting disease. Final Performance Report. WSFR Grant ID: WLD1908, Michigan Department of Natural Resources, Lansing, MI.
2. **S. Christensen**, William Porter, and David Williams. 2018. Local-scale assessment and monitoring of deer populations following a major mortality event. Final Performance Report, WSFR Grant ID: MI W-155-R Study 1.22, Michigan Department of Natural Resources, Lansing, MI.
3. Diefenbach, D. R., and **S. A. Christensen**. 2009. Movement and habitat use of sika and white-tailed deer on Assateague Island National Seashore, Maryland. Natural Resource Technical Report NPS/NER/NRTR—2009/140. National Park Service, Philadelphia, PA.
4. Grund, M., L. Cornicelli, D. Fulton, B. Haroldson, E. Dunbar, **S. Christensen**, and M. Imes. 2005. Evaluating alternative regulations for managing white-tailed deer in Minnesota – a progress report. Pages 132-137 in P. Wingate, R. Kimmel, J. Lawrence, and M. Lenarz, editors. Summaries of Wildlife Research Findings, 2005. Division of Fish and Wildlife, Minnesota Department of Natural Resources, St. Paul, MN.

### **Research Grant Activity (Funded)** \*Active grants

1. **S. Christensen**, B. DeGregorio, D. Etter, M. Nichols. Chasing the deer denominator: Establishing a standardized white-tailed deer abundance estimator for Chronic Wasting Disease treatment areas. USDA APHIS – Wildlife Services. Amount: \$239,008.00. Role: PI. Awarded Oct. 1, 2024. \*
2. **S. Christensen**. Connecting landowner access to CWD outcomes USDA APHIS – Wildlife Services. Amount: \$124,966.60. Role: PI. Awarded Oct. 1 2024. \*
3. **S. Christensen**. Africa Global Partnership Scholars (Africa GPS) program. Alliance for African Partnership (AAP). Amount: \$10,000. Role: PI. Awarded July 2024. \*
4. G. Roloff and **S. Christensen**. Foot and mouth disease (FMD) gap analysis for feral swine in the US. USDA-ARS. \$262,700.00. Role: Co-PI. Awarded July 2024. \*
5. **S. Christensen**. Relationships Between Disease and Spatially Explicit Densities of Deer, Turkey, and Coyote. Indiana Department of Natural Resources. Amount: \$393,385.04. Role: PI. Awarded Oct. 1, 2023. \*

6. **S. Christensen**. Fish and Wildlife Health Coordination and Strategic Planning. Association of Fish and Wildlife Agencies (AFWA), 3-year grant for 2023 – 2026. Amount: \$277,128.04. Role: PI. Awarded 2023. \*
7. **S. Christensen** and N. Snow. Assessing landowner access for CWD management: Willingness to accept CWD management and implications for disease spread (amended, phase 2 of study). Amount: \$97,062.97, Awarded Oct. 1, 2023. Role: PI. \*
8. E. Michel, C. Jennelle, D. Walsh, **S. Christensen**, F. Hodel. Does it Matter: Building a Web Application for Managers to Measure Impacts of CWD Control Strategies. Amount: \$113,227.00 (non-MSU funds), Awarded Oct. 1, 2023. Role: Co-PI.\*
9. **S. Christensen**, D. Ortega, and N. Snow. Assessing landowner access for CWD management: Willingness to accept CWD management and implications for disease spread. Amount: \$160,592.30, Awarded Oct. 1, 2022. Role: PI. \*
10. **S. Christensen**. Fish and Wildlife Health Coordination and Strategic Planning. Association of Fish and Wildlife Agencies (AFWA). Awarded March 2021-2022 (\$64,000), renewed: 2022-2023 (\$72,763). Role: PI.
11. **S. Christensen** and J. Bartz. Multistate CWD Strategic Planning Initiative. Michigan Department of Natural Resources/Michigan State University joint wildlife disease initiative. Amount: \$17,650, Awarded July 2021. Role: PI.
12. **S. Christensen**, C. Jennelle, D. Walsh, J. Martin, E. Michel. Prospective simulation assessments of alternative harvest strategies to mitigate and control CWD invasion and spread. Minnesota Department of Natural Resources. Amount: \$100,000. Awarded February 2021. Role: PI.
13. **S. Christensen**, K. Schuler, N. Pinizzotto, D. Ortega. CWD Show and Tell: Gauging Hunters' Willingness to Adopt Management Practices. Michigan Department of Natural Resources/Michigan State University joint wildlife disease initiative. Amount: \$70,833, Awarded September 2020. Role: PI.
14. **S. Christensen**, D. Williams, S. Mayhew. Evaluation of deer population parameter estimates and implications for CWD management. Michigan Department of Natural Resources/Michigan State University joint wildlife disease initiative. Amount: \$86,204. Awarded September 2020. Role: PI.
15. **S. Christensen** and J. Pedersen. *North American interdisciplinary chronic wasting disease research consortium*. NIMSS NC-1209 Research Multistate 5 - year proposal, awarded June 2020.
16. D. Williams, D. Etter, and **S. Christensen**. Group size, bioaccumulation, and baiting: quantifying factors affecting disease transmission among deer. Michigan

Department of Natural Resources/Michigan State University joint wildlife disease initiative. Amount: \$203,930, Awarded September 2020. Role: PI (as of 10/22).

17. D. Walsh, **S. Christensen**, Jonathan Cook, Tyler Harms, Trevor Hefley, Chris Jennelle, Julien Marten, Jonathan Mawdsley, Eric Michel, Daniel O'Brien, Krysten Schuler, Daniel Storm, Dr. David Walter. Pulling on the Same End of the Rope: Developing a Regional CWD Adaptive Management Framework. Michigan Department of Natural Resources/Michigan State University joint wildlife disease initiative. Amount: \$114,381, Awarded September 2020. MSU Sub-award PI.
18. T. Harms, P. Lukacs, D. Walsh, D. Storm, J. Stenglein, C. Jennelle, E. Michel, A. Norton, **S. Christensen**, D. Williams. An Innovative Approach to Evaluating Effects of Cervid Population Management For Chronic Wasting Disease on both Public and Private Lands. Submitted Aug. 2020, Awarded (non MSU). Role: Co-PI.
19. **S. Christensen** and W. Porter. *Multistate CWD Strategic Planning Initiative*. Michigan Department of Natural Resources/Michigan State University joint wildlife disease initiative. Amount: \$16,387, Awarded August 2019. Role: PI.
20. W. Porter and **S. Christensen**. Evaluating the interaction of emerging diseases on white-tailed deer populations. The Hal and Jean Glassen Memorial Foundation. Amount: \$260,033, Awarded September 1, 2017 – August 31, 2021. Role: PI (as of 10/22).
21. D. Williams and **S. Christensen**. Influence of deer harvest regulations on antlerless harvest, abundance, and sex and age composition: implications for managing deer in the face of chronic wasting disease. Sponsor: Michigan Department of Natural Resources. Amount: \$239,463, Awarded for May 1, 2019 – September 30, 2023. Role: PI (as of 10/22).
22. K. Schuler, D. Williams, **S. Christensen**, A. Belsare, D. Walter, D. Walsh, C. Jennelle, B. Hanley. Optimizing CWD surveillance: regional synthesis of demographic, spatial, and transmission–risk factors. Michigan Department of Natural Resources/Michigan State University joint wildlife disease initiative. Amount: \$241,094, Awarded September 2019 - September 30, 2023. Role: Co-PI. (Phases I and II)
23. W. Porter, D. Williams and **S. Christensen**. Management solutions for chronic wasting disease. Michigan State University, College of Agriculture and Natural Resources, AgBioResearch and MSU Extension. July 1, 2016 – June 30, 2021. Amount: \$300,000. Role: Key Personnel
24. D. Williams, W. Porter, and **S. Christensen**. Assessing drivers of spread and transmission of Chronic Wasting Disease in Michigan deer. Division of Wildlife,



Michigan Department of Natural Resources. October 1, 2017 – September 30, 2022.  
Amount: \$502,736 + \$114,222 supplement. Role: Key Personnel.

25. W. Porter, D. Williams, and **S. Christensen**. Management of chronic wasting disease. Division of Wildlife, Michigan Department of Resources. October 1, 2016 – September 30, 2021. Amount: \$250,000. Role: Key Personnel

### **Presentations at Professional Conferences (Last 6 Years only)**

#Graduate student ^Undergraduate student

1. Correia, R. S.#, **S.A. Christensen**, D.L. Ortega, and N.P. Snow. Landowner Willingness for Chronic Wasting Disease Management on Private Land. Poster presentation at Annual meeting of The Wildlife Society, Baltimore, MD, October 21 2024.
2. **S. A. Christensen**.
3. **S. A. Christensen**, B. Skelly, M. G. Ruder, J. Crum, D. Stallknecht. Climate influenced disease expansion of hemorrhagic disease. Oral presentation at the Southeast Deer Study Group Meeting, West Virginia, Feb. 12 2024.
4. **S. A. Christensen** and M. Strasburg. Evaluating the interaction of emerging diseases on white-tailed deer populations. Oral presentation at The Wildlife Society annual meeting, Louisville, Kentucky. November 6, 2023. \*Invited talk.
5. Gurney, S. M.#, **S. A. Christensen**, N. A. Gilbert, M. J. Nichols, S. L. Mayhew, and D. R. Etter. Assessing the effect of a deer harvest regulation change on relative abundance: an experimental approach. Oral Presentation at The Wildlife Society 30th Annual Conference. Louisville, KY – November 2023.
6. Correia, R. S.#, **S.A. Christensen**, D.L. Ortega, and N.P. Snow. Landowner Willingness for Chronic Wasting Disease Management on Private Land. Poster presentation at the 71st International Wildlife Disease Association Conference, Athens, GA - August 2023.
7. **Christensen, S. A.** Human Behavior and the Willingness to Adopt CWD Management Practices. Oral presentation at the Annual Northeast Fish and Wildlife Conference, Hershey, PA. May 2nd, 2023. \*Invited talk.
8. Strasburg, M., and **S. A. Christensen\***. Evaluating the interaction of emerging diseases on white-tailed deer populations. Poster presentation at the 4th International CWD Symposium. Denver, CO. June 1st, 2023. \*S.A.C. presented.
9. Gurney, S. M.#, **S. A. Christensen**, C. M. Stewart, M. J. Nichols, S. L. Mayhew, M. R. Liberati, D. R. Etter. Linking antler point restrictions to CWD spread and growth: an agent-based modeling approach with empirical data. Poster presentation at the 4th Annual International Chronic Wasting Disease Conference. Denver, CO – June 2023. \*Best Poster Award
10. Correia, R. S.#, **S.A. Christensen**, D.L. Ortega, and N.P. Snow. Landowner Willingness for Chronic Wasting Disease Management. Oral presentation at the MSU Fisheries and Wildlife GSO Symposium, East Lansing, MI - February 2023.
11. **Christensen, S. A.**, C. Gillin, P. Johansen, J. Cook, and T. DeLiberto. SARS-CoV-2 and white-tailed deer: navigating science and uncertainty for a popular game species.

Oral presentation at the 29th Annual TWS Conference, November 6 – 10, 2022.

\*Invited talk.

12. **Christensen, S. A.**, B. Skelly, M. G. Ruder, J. Crum, D. Stallknecht. Climate influenced disease expansion of hemorrhagic disease. Oral presentation at the International Wildlife Disease Conference, July 2022. Madison, Wisconsin.
13. **Christensen, S. A.**, Ufer, D., Ortega, D., Pinizzotto, N., and Schuler, K. CWD Show and Tell: Gauging Hunters' Willingness to Adopt Management Practices. Oral Presentation at the International Wildlife Disease Conference, July 2022. Madison, Wisconsin.
14. **Christensen, S. A.**, Ufer, D., Ortega, D., Pinizzotto, N., and Schuler, K. CWD Show and Tell: Gauging Hunters' Willingness to Adopt Management Practices. Oral Presentation at the 28th Annual TWS Conference, November 1st – 5th, 2021.
15. Gurney, S.#, **S. A. Christensen**, Nichols, M, Mayhew, S., Etter, D. and Williams, D. Temporal Variation of White-Tailed Deer Detection and Implications for Population Parameter Estimates. Poster Presentation at the 28th Annual TWS Conference, November 1st – 5th, 2021.
16. Tilley, A<sup>^</sup>., **S. A. Christensen**, J. Trudeau, and S. Bolin. Inferring infection risk of west nile virus from wildlife: connecting landcover selection and seroprevalence in free-ranging white-tailed deer. Poster presentation at the 28th Annual TWS Conference, November 1st – 5th, 2021.
17. Courtney, S. E.#, Etter, D., **S. A. Christensen**, and D. Williams. Quantifying Factors Affecting Chronic Wasting Disease Transmission Among Deer. Poster Presentation at the 28th Annual TWS Conference, November 1st – 5th, 2021.
18. Trudeau, J.#, D. M. Williams, **S. A. Christensen**, D. Etter. How far so they really go? The long and tortuous path of dispersing white-tailed deer in Michigan. Oral presentation at the 28th Annual TWS Conference, November 1st – 5th, 2021.
19. **S. A. Christensen** and D. M. Williams. Emerging diseases in Michigan and Beyond: Addressing Challenges Through Innovation and Partnerships. Association of Fish and Wildlife Agencies Annual Meeting, CWD Special Session. September 13th 2021.
20. **Christensen, S. A.**, Ufer, D., Ortega, D., Pinizzotto, N., and Schuler, K. CWD Show and Tell: Gauging Hunters' Willingness to Adopt Management Practices. Presentation at the Southeast Deer Study Group Meeting, February, 2021.
21. **Christensen, S. A.** Drivers of Emerging Hemorrhagic Disease. Invited Symposium Speaker: Climate Change and Wildlife Disease. Presentation at the 27th Annual TWS Conference, September 27- October 1, 2020. \*Invited talk.
22. M Huang#, N Thompson#, **S Christensen**, S Demarais. Putting Out the Fire: A Review of Wildlife Agency Responses to Chronic Wasting Disease. Presentation at the 27th Annual TWS Conference, September 27- October 1, 2020.
23. Thompson, N. E.#, D. M. Williams, **S. A. Christensen**, D. J. Butts, M. Murillo, and W. F. Porter. Agent-based modeling: the new frontier for combating chronic wasting disease. Oral presentation at 80th Annual Midwest Fish and Wildlife Conference. 27 January 2020. Springfield, Illinois.

24. Trudeau, J. T.#, D. M. Williams, **S. A. Christensen**, and W. F. Porter. Identifying the relative risk of short-term deer movements to the geographic spread of chronic wasting disease. Oral presentation at 80th Annual Midwest Fish and Wildlife Conference. 28 January 2020. Springfield, IL.
25. Trudeau, J. K.#, D. M. Williams, **S. A. Christensen**, D. R. Etter, and W. F. Porter. Convenience or selection? A look at the resource selection of Michigan white-tailed deer. Oral presentation at The Wildlife Society 2020 Annual Conference (Virtual). 1 October 2020.
26. Belsare, A., **S. A. Christensen**, N. E. Thompson#, D. Williams, W. Porter. Model-informed strategies for chronic wasting disease management. Oral presentation at the 26th Annual Meeting of The Wildlife Society. 3 October 2019. Reno, NV.
27. Cook, J.#, **S. A. Christensen**, D. Williams, W. Porter. Putting out the fire: modeling the spread and spark dynamics of chronic wasting disease. Oral presentation at the 26th Annual Meeting of The Wildlife Society. 3 October 2019. Reno, NV.
28. Thompson, N. E.#, **S. A. Christensen**, D. Williams, W. Porter. Using agent-based modeling to improve our understanding of chronic wasting disease. Oral presentation at the 26th Annual Meeting of The Wildlife Society. 3 October 2019. Reno, NV.
29. Trudeau, J. K.#, D. Williams, **S. A. Christensen**, W. Porter. Michigan's white-tailed deer are going on short vacations. Oral presentation at the 26th Annual Meeting of The Wildlife Society. 3 October 2019. Reno, NV.
30. **Christensen, S. A.** Climate impacts on fish and wildlife disease. Oral presentation at 2019 Conservation and Climate Change: Impact on Michigan Fisheries and Wildlife Forum. 23 August 2019. East Lansing, MI. \*Invited talk
31. Thompson, N.#, **S. A. Christensen**, D. Williams, W. Porter. Using agent-based modeling to improve our understanding of chronic wasting disease. Oral presentation at the 2019 International Wildlife Disease Association Conference. 6 August 2019. Tahoe City, CA.
32. Cook, J. D.#, **S. A. Christensen**, D. M. Williams, W. F. Porter. Learning from Others: Modeling the Growth and Spread of Chronic Wasting Disease with Limited Local Information. Oral presentation at the 2019 Annual Meeting of the Michigan Chapter of The Wildlife Society. 14 March 2019. Gaylord, MI.
33. **Christensen, S. A.**, D. Williams, and W. Porter. Application of N-mixture models for aerial surveys of wildlife: A comparison study. Oral presentation at the 9th International Deer Biology Congress. 7 August 2018. Estes Park, CO.
34. **Christensen, S. A.**, D. Williams, and W. Porter. Epizootic hemorrhagic disease affects abundance and distribution of free-ranging deer populations. Oral presentation at the 9th International Deer Biology Congress. 9 August 2018. Estes Park, CO.
35. Cook, J.D#., **S. A. Christensen**, D.M. Williams, and W.F. Porter. Learning from others: Modeling the growth and spread of chronic wasting disease in an emergent area. Oral presentation at the 9th International Deer Biology Congress. 5 August 2018. Estes Park, CO.

36. Stanke, H.D.<sup>^</sup>, J. Cook, **S. A. Christensen**, W.F. Porter, and D.M. Williams. Connecting the dots: A landscape approach for Michigan CWD. Oral presentation at the 2018 Annual Meeting of the Michigan Chapter of The Wildlife Society. 16 March 2018. Gaylord, MI.
37. **Christensen, S. A.**, M. Ruder, D. Williams, W. Porter, J. Fischer, and D. Stallknecht. The Role of Drought as a Predictor of Hemorrhagic Disease in the Eastern United States. Oral presentation at the 41st Annual Meeting of the Southeast Deer Study Group. February 21st, 2018. Nashville, TN.

## **Professional Leadership and Outreach**

### ***Professional Engagement, Service, and Coordination***

- National Academies of Science, Engineering, and Medicine. Invited panel member: Committee on Review of Transmission and Geographic Spread of Chronic Wasting Disease in U.S. Cervid Populations. Initiated Oct. 9 2023, and currently ongoing.
- Association of Fish and Wildlife Agencies (AFWA) Fish and Wildlife Health Coordinator. Selected efforts include:
  - National Fish and Wildlife Health Initiative (NFWHI) coordinator. Steering Committee host/facilitator for all meetings and lead on all Initiative products and provide technical guidance. Conduct strategic planning and workshops.
  - Hosted and facilitated NFWHI Steering Committee 1 day workshop: Data sharing for Wildlife Health. June 18, 2024, AFWA Headquarters, Washington D.C.
  - Authored updated “NFWHI Toolkit” document and held associated input workshop for Steering Committee members, East Lansing MI, July 2023, product to be published Dec. 2024.
  - Drafted Committee Resolution: IN OPPOSITION TO THE RELEASE OF CAPTIVE-BRED CERVIDS INTO FREE-RANGING WHITE-TAILED DEER POPULATIONS, passed by committee vote Sept 25, 2024.
  - Invited guest and speaker: USFWS Wildlife Health Partners Forum, Athens, GA, July 28-29 2023. Presented on population impact assessments for wildlife disease and NFWHI efforts.
  - Provide technical expertise on AFWA position support letters, resolutions, legislation, and intergovernmental agreements.
  - Advise on national federal partnerships (ex. AFWA regional association fish and wildlife health coordinator hires and capacity building).
  - AFWA Fish and Wildlife Health Committee staff and expertise support, including meeting host and presenter for bi-annual meetings (North American meetings and AFWA Annual meetings: 2024, 2023, 2022, 2021).

- Input on draft legislation and policy for fish and wildlife health matters
- Assisted with establishing the Aquatic Animal Health Working Group within AFWA
- Provide expertise, staff support and coordination for the lead working group, SARS-CoV-2 working group, One Health president task force support and AFWA/EPA One Health Community of Practice.
- Invited to National Wildlife Health Surveillance workshop as AFWA rep., Aug. 2022, National Conservation Training Center, Shepardsstown, WV.
- AFWA Science and Research Committee presenter, CWD update, September 8<sup>th</sup> 2021.
- AFWA OneHealth Initiative, inter-agency meeting host/facilitator and coordinator July 12<sup>th</sup> 2021.
- Invited and current member, *USGS Biothreats and Invasive Species Research Program Council*, 2021 – Present.
- Editor and co-author, AFWA Guidance on SARS-CoV-2 and Free Ranging White-Tailed Deer document September 2021.  
[https://www.fishwildlife.org/application/files/5516/3277/5426/Guidance\\_SARS-CoV2\\_White-tailed\\_Deer\\_SEP2021.pdf](https://www.fishwildlife.org/application/files/5516/3277/5426/Guidance_SARS-CoV2_White-tailed_Deer_SEP2021.pdf)
- Co-host, AFWA CWD Special Session. AFWA Annual Meeting September 13<sup>th</sup> 2021.
- Multistate Project: Chronic Wasting Disease Research Consortium (NIMSS NC234 and NC1209).
  - Editor, co-founder (in collaboration with the late J. Pedersen UW-Madison), and current executive board member.
  - Meeting host and coordinator for the inaugural meeting (Sept. 9-10, 2019), subsequent annual meetings (July 2020, October 2021) and co-host for 2023 Denver meeting (NIMSS NC1209 project). Attended 2024 annual meeting.
  - Co-edited CWD Research Consortium “State of the Science” white papers and provide outreach content ([www.cwd-research.com](http://www.cwd-research.com)).
  - Co-authored and edited 1-pager “Scientific Comment on use of Selective Breeding and Release of Captive White-tailed Deer for CWD Prevention and Management” (<https://www.cwd-research.com/home/selective-breeding-and-release-of-captive-white>).
  - Ongoing proposal co-author for 5 year renewal.
- MSU Fisheries and Wildlife Service: Chair Search Committee (2023 – 2024), FW Communications Committee (2022 – 2024).

### ***Additional Selected Professional Development and Outreach***

- S. A. Christensen. Addressing Challenges for Wildlife Population Health and Management Through Science and Partnerships. *Invited Seminar*, Forest and Natural Resources Seminar Series. Purdue University. Oct. 14, 2024.
- S. A. Christensen. Working Towards a common denominator for local-scale deer estimation in the Midwest. Invited talk. Midwest Deer and Turkey meeting. Sept. 25, 2024.
- S. A. Christensen. Wildlife Population Health. Oral presentation to the CMERC Art + Science workshop. June 24, 2024.
- Invited presentation at the Annual Native American Fish and Wildlife Society meeting, Research and publication committee meeting, May 14 2024.
- Invited Working Group member for University of Minnesota's Center for Infectious Disease Research and Policy (CIDRAP) CWD Contingency Planning Working Group (2023 – present).
- Co-hosted MSU/USGS regional CWD Structured Decision Making workshop August 2023 for MAFWA participating states.
- Provide guidance as requested to state fish and wildlife agency partners (Indiana DNR, Ohio DNR, Michigan DNR, Wisconsin DNR in 2021 to present).
- MSU Extension and Outreach for CWD: Video discussing MSU/MDNR funded CWD research: <https://youtu.be/x6zEJoDD8RI>
- Lead author/organizer on selected TWS Symposium: "SARS-CoV-2 and Wildlife: The State of the Science and Looking Ahead for Wildlife Health", 29th Annual TWS Conference, November 6 – 10, 2022.
- Invited workshop participant: USGS Midwest CASC Early Career Professionals Workshop. Albuquerque, NM, October 10 – 14, 2022.
- Invited on Steering Committee: USGS SARS-CoV-2 and WTD SDM project, 2022.
- *Fair Chase* article highlight: CWD RESEARCH CONSORTIUM: SCIENTISTS TEAM UP TO FIGHT CHRONIC WASTING DISEASE. J. Mawdsely, 2022.
- Scientific Program Committee, Wildlife Disease Association International Conference, July 2022, Madison, WI.
- Hal and Jean Glassen Board of Trustees presentation, December 21<sup>st</sup>, 2022.
- Invited speaker, "National Perspectives on CWD Science Initiatives" – USDA APHIS CWD Stakeholder meeting Dec. 7-9 2021.
- Invited panelist, "CWD: Barriers, Challenges, Lessons Learned" - Michigan CWD Investigators Meeting, January 25-26, 2022.
- Reviewer, Wildlife Management Institute CWD-Alliance CWD Grant Program. October 2021.
- Invited subject matter expert, NWHC-WIDNR-Ventana CWD mapping and modeling project for Wisconsin. September 2021.

- Co-lead of Inaugural Trilateral Wildlife Health Webinar series, initiated January 2021. Coordinated TWS Wildlife Disease Working Group speakers May and November 2021.
- AFWA, National Fish and Wildlife Health Initiative Steering Committee: Assistant Coordinator (voluntary), September 2015-2020; meeting host July 2019.
- Served on the USFWS Midwest Landscape Initiative (MLI) CWD group 2020.
- Invited reviewer for the Arkansas Game and Fish Commission CWD Response Plan (Dec. 2020).
- Invited Expert for USGS Socio-Ecological CWD modeling exercise (Dec 2020)
- Article in SCWDS Briefs (July 2020): Drought and EHD.
- *Invited participant*: Climate Change and Wildlife Health Workshop, January 7-10, 2020. Hosted by National Wildlife Health Center and USGS, Madison, WI.
- Workshop participant: Fundamentals of Structured Decision Making 28th Annual TWS Conference 2021.
- MSU Wildlife Disease Association Student Chapter. Invited Speaker. “One Health in Fisheries and Wildlife”. November 17<sup>th</sup> 2021.
- Panelist and presenter for the Surveillance Optimization for CWD (SOP4CWD) Webinar (Nov 2020)
- Invited speaker, National Quality Deer Management Association staff visit to Michigan State University, “Emerging disease in Michigan deer: addressing challenges through research”. March 22nd 2019.
- Invited speaker, The Hal and Jean Glassen Foundation Board Meeting, project update. “Emerging disease in Michigan deer: addressing challenges through research”. March 19th 2019 and March 4<sup>th</sup> 2020.
- Invited speaker, MSU Wildlife Disease Association meeting, “Emerging disease in Michigan deer: addressing challenges through research”. February 5<sup>th</sup> 2019.
- USGS led Midwest Chronic Wasting Disease Research Initiative. December 2017 – present.
- Christensen, S.A. and W.F. Porter. Michigan Deer Disease Initiative. Invited briefing to Senator Debbie Stabenow. 5 February 2018. Lansing, MI.
- Graduate of *Emerging Leaders Program at the Great Lakes Leadership Academy*, (9-month program of individual and organizational leadership skills development). April – Sept. 2016.
- Invited guest, Mike Avery Radio Show. EHD in Michigan. July 2016.
- Invited guest, WLEW Radio – Outdoors DNR live call-in show, Sept. 24 2015 and Nov. 10th 2016.
- Presented at The Lansing Rotary Club meeting, Lansing, MI. “Emerging disease issues for Michigan deer.” 9 July 2015.
- Invited guest, Michigan Out of Doors TV: EHD episode #1537, Sept 2015.

- Invited guest, Wild Michigan Radio show with Duran Martinez. Dec. 20th 2014.
- Invited speaker, Safari Club International Lansing chapter, annual white-tail night. Presented on deer diseases and ecology. December 11th 2014.
- Invited speaker, Becoming an Outdoor Woman deer workshop, Fall 2008 - 2010.
- Co-lead telemetry workshop, School of Forest Resources Wildlife and Fisheries Science undergraduates; The Pennsylvania State University, Spring 2007.
- Invited Speaker, Pennsylvania Deer Association, Western Chapter, Annual Meeting. Deer research, PA USGS Wildlife Cooperative Unit. Fall 2006.

## Courses Taught

***Instructor on Record (MSU SIRS Scores through 2023 are on 1- 5 scale, 1 most positive. MSU SPLS Scores from 2024 on are 5-1 scale, 5 most positive).***

- **FW364: Ecological Problem Solving.** Instructor, in-person format. Michigan State University, 3 credit course on quantitative models with section-based computer lab.
  - Spring Semester 2024 (3 sections). 58 students SS2024. SPLS: >3 for all evaluation categories and across sections.
  - Spring Semester 2023 (2 sections), 41 students SS2023. SIRS Instructor Score 2023: LECTURE Mean 1.6, Lab section 1 Mean 1.37, Lab section 2 Mean 1.63.
- **ISB202 -05: Applications of Environmental & Organismal Biology.** Spring Semester 2024. Instructor, in-person format. Michigan State University, 3 credit course. 180 Students. SS2024 SPLS: >3 for all evaluation categories.
- **ISB202 -011: Applications of Environmental & Organismal Biology.** Spring Semester 2023. Instructor, in-person format. Michigan State University, 3 credit course. 71 Students. SS2023 SIRS Overall Instructor Score: Mean 1.41
- **ISB202-009: Applications of Environmental & Organismal Biology.** Spring Semester 2021. Instructor, Michigan State University, 3 credit course. Synchronous online course. 105 Students. SS2021 SIRS Overall Instructor Score: Mean 1.35
- **FW 480 – Exploring Principles and Practices of Wildlife Conservation in South Africa:** Summer 2023. Co-Instructor, Michigan State University, 6 credit course. 12 students.
- **FW490-004 - Independent Study:** Instructor, Michigan State University 3 credit course. Katie King. Independent Study. Spring 2023. SS2023 SIRS Score: 1.0
- **FW490-004 - Independent Study:** Instructor, Michigan State University 3 credit course. Rachel Correia. Spring Semester 2021. SS2021 SIRS Score: 1.0



- **FW885 - Leadership in Natural Resources and Environmental Management.** FS2017. Co-Instructor, Michigan State University Fall semester 2017. Leadership in Natural Resources and Environmental Management. 2 credit course. 13 Students. Co-taught, W. Porter and S. Christensen. SIRS Score: 1.0

### **Guest Lectures**

- MSU FW 101. Fundamentals of Fisheries and Wildlife. Feb. 20, 2024. Instructor: Emily Pomeranz.
- MSU FW 462. Fish and Wildlife Disease Ecology. Effects of disease on populations of wild animals. 1 February 2024.
- MSU FW 101. Fundamentals of Fisheries and Wildlife. October 18 2022. Instructor: Mary Tate Bremigan.
- MSU FW 423 Principle of Fish and Wildlife Disease. Instructor: Dr. Tom Loch. Michigan State University. 9 November 2021.
- ACC BIO 207 WILDLIFE & FISHERIES ECOLOGY & MGT. Instructor: Anna Mitterling. Alpena Community College. 11 November 2021.
- MSU FW 894 Graduate Intro Seminar. Instructors: Dr. Abigail Bennett and Dr. Jim Bence. Michigan State University. 29 October 2021.
- MSU LCS 660 Wildlife Disease Ecology and Conservation Medicine. Deer management and disease ecology. Instructor: Dr. Jean Tsao Michigan State University. 28 August 2021.
- MSU IBIO 355. Ecology, Honors Section. *Title:* Population impacts and patterns of disease: Integrating the ecology of infectious diseases with wildlife conservation and management. Instructor: Dr. Mary Bremigan and Dr. Marjorie Weber. Michigan State University. 26 September 2019.
- MSU FW 101. Fisheries and Wildlife Ecology and Management. *Title:* Fish and Wildlife Disease Ecology. Instructor: Dr. Mary Bremigan. 4 April 2019.
- MSU FW 462. Fish and Wildlife Disease Ecology. *Title:* Effects of disease on populations of wild animals. 8 February 2018.
- MSU FW/MC 481. Global Issues in Fisheries and Wildlife. *Title:* Emerging disease in deer populations. 28 February 2018.
- MSU FW 101. Fundamentals of Fisheries and Wildlife. *Title:* Fish and wildlife disease ecology. 22 March 2018.
- MSU FW 101. Fundamentals of Fisheries and Wildlife. *Title:* Case Studies in Wildlife Disease Research: CWD and EHD in White-tailed Deer. April 20<sup>th</sup> 2017
- Central Missouri University – Wildlife management. *Title:* Fish and wildlife disease ecology. Wildlife management and disease. March 4 2016.
- MSU FW 424 (analysis and management of fish and wildlife populations), *Title:* Measuring impacts of disease in wildlife populations. November 2014.

- MSU ENT 401 (arthropod vector disease ecology course). *Title: Emerging Deer Disease in Michigan.* Kellogg Biological Station, June 2014 and June 2015.
- WFCON 565 (wildlife population dynamics and management), *Title: Deer Management and Biology, and Deer Aging Using Tooth Wear and Replacement;* University of Massachusetts, Amherst: Fall 2008, 2009, and 2010.
- Wildlife Biology, *Title: Radio-Telemetry and Remote Sensing for Wildlife;* Framingham State College, Massachusetts March 2010.
- Radio-telemetry, Student chapter TWS techniques workshop, 2008, 2009, 2010.
- WFS 310. *Title: Radio-telemetry; The Pennsylvania State University* Fall 2007.
- STEM teaching workshop attendee, Michigan State University, 2018-2020.

## **Research Advising**

### ***Postdocs Supervised (\*current)***

- Dr. Florian Hodel, Hired June 14 2021 – September 30 2023.
- Dr. Miranda Strasburg, Hired January 1 2022 – February 10 2023.
- Dr. Olivia Spagnuolo\*, Hired September 4<sup>th</sup> 2024.

### ***Research Associates/Technicians (\*current)***

- Steven Gurney, full-time research technician, Jan 2023-June 2024.
- Kara Cambell, part-time research technician, June 2023-present.
- Katie King\*, part-time research technician, Jan. 2023-present.
- Abigail Comar, part-time research technician, June 2023 – September 2023.

### ***Graduate Student Supervised/Graduate Committee Chair (\*current)***

- Steven Gurney, MS student, Enrolled Spring 2021. Graduated December 2023.
- Rachel Correia\*, MS student, Enrolled Spring 2023, anticipated graduation May 2024.
- Kristen Hirst\*, PhD student, Enrolled Spring 2024, anticipated graduation December 2027.
- Michael Shaw\*, PhD student, Enrolled Spring 2024, anticipated graduation May 2028.

### ***Graduate Student Committee Member (\*current)***

- Samantha Courtney, MS student, Michigan State University, graduated Dec. 2023.
- Caleb Krueger\*, PhD student, Michigan State University
- Tina Jackson\*, PhD student, Purdue University.

### ***Non-Committee Graduate Mentoring:***

- Jon Cook, PhD candidate (FW), graduated December 2020.

- Noelle Thompson, PhD student (FW), graduated December 2023.
- Jonathan Trudeau, PhD student (FW), anticipated graduation May 2024.
- Danielle Ufer, PhD student (AFRE), graduated May 2021.

### ***Undergraduate Supervising and Mentoring (\*current)***

- Makayla Dernberger\* - CMERC student, Deer Fawn Ecology project. April 2024.
- Sam Kneibel\* - Glassen Undergraduate Experience, October 2022. Primary Supervisor: Population estimation methods in white-tailed deer.
- Cooper Krueger\* – Hired 2022, Professorial Assistant and ULA. Bobcat Occupancy in Michigan.
- Cameron Brown - Undergraduate research mentor. Oct. 2022 – May 2023.
- Avery Tilley – Professorial Assistant 2 years. Undergraduate Research primary supervisor. Graduated May 2023.
  - Awarded AASONA Fellowship for Undergraduate Research (\$5,000)
  - Awarded CANR URP funding for Undergraduate Research (\$2,000)
- Katie King – (graduated December 2023) Undergraduate Research supervisor and Glassen Undergraduate Experience student. Hired October 2021. Primary Supervisor.
- Kali Rush (graduated May 2016) – Undergraduate Research co-supervisor.
- Kelsey Fischer (graduated December 2017).
- Sydney Manning (graduated December 2017).
- Hunter Stanke (graduated May 2019) – Undergraduate Research co-supervisor.
- Addison Pletcher (graduating May 2021) – Primary supervisor 2019.

### **Selected Awards**

- Presidential Award, Michigan Chapter of The Wildlife Society. 2019.
- North Central Section of TWS Regional Outstanding Graduate Student of the Year award 2016, \$500
- The Hal and Jean Glassen Foundation Conservation Medicine Fellowship 2015 \$8,000
- Joseph G. Schotthoefer Memorial Student Award, Safari Club International Michigan Involvement Committee, September 2014. \$2,000.
- Graduate Research Enhancement Fellowship, for attendance to the Introduction to Distance Sampling Workshop at St. Andrews University, Scotland. Summer 2014. \$1,000. Michigan State University.

### **Referee and Review Service**

- Guest Editor, The Northeast Naturalist.

- Manuscript Reviewer: Ecological Applications, Journal of Fish and Wildlife Management, Wildlife Biology, Journal of Biogeography, Global Change Biology, Landscape Ecology, Global Ecology and Conservation, The Journal of Wildlife Management, Wildlife Society Bulletin, The Northeast Naturalist, USGS.

### **Professional Affiliations**

- The Wildlife Society – Member: National, North Central Section, and Michigan chapter – 2013-present
  - Board Member, National TWS Wildlife Disease Working Group; *Re-elected for Oct. 2021 - 2023.*
  - Board Member, National TWS Wildlife Disease Working Group Oct 2019 – 2021 term.
  - Michigan Chapter - served as board member, president-elect, president, and past-president, 2015-2019.
- Wildlife Disease Association, 2015-present.
- The Wildlife Society – Montana Chapter and Northwest Section 2012 – 2013
- The Wildlife Society – New England Chapter and Northeast Section 2009 – 2013
  - Vice president, 2010-2011.
- The Wildlife Society - Pennsylvania Chapter 2006-2008
- The Wildlife Society – Minnesota Chapter 2005-2006

### **Links to Select Media Releases and outreach (requested interviews and podcasts)**

- Fox47 news, filmed Oct. 3, 2024. Deer disease in Michigan. Yet to air.
- The Green Way Outdoors Podcast, #143, Sept. 30 2024: [PODCAST – The Green Way Outdoors](#)
- National Deer Association. Predicting EHD. July 16 2024. <https://deerassociation.com/these-warning-signs-could-predict-ehd-outbreaks-in-deer/>
- The National Land Podcast, June 27, 2024: <https://nationalland.podbean.com/e/top-disease-ecologist-speaks-on-cwd/>
- Outbreak News podcast, Nov. 28 2023
- Bridge Michigan Interview: Dec. 25 2023: <https://www.bridgemi.com/michigan-environment-watch/five-reasons-why-michigan-deer-herds-are-surg-ing-hunting-declines-are>
- Ask the Expert: How chronic wasting disease threatens deer populations. Nov. 16 2023: <https://msutoday.msu.edu/news/2023/ask-the-expert-chronic-wasting-disease-threatens-deer-populations>

- Michigan State University press release November 2023:  
<https://www.canr.msu.edu/news/msu-scientist-protects-wildlife-populations-through-disease-surveillance-management>
- The Atlantic, July 2022:  
<https://www.theatlantic.com/science/archive/2022/08/deer-elk-shed-antlers-hunting/671021/>
- *The Wildlife Professional*: “Deer Don’t Wear a Mask” (March 2022 issue).
- Bridge Michigan Interview: <https://www.bridgemi.com/michigan-environment-watch/hunting-wanes-fear-southern-michigan-deer-invasion-grows> Nov. 8 2021
- [Chronic wasting disease threatens michigan deer hunting wildlife conservation efforts](#). In the Field magazine, MSU. February 2020.
- [CWD study will track deer movement](#). Interview, Times Herald, January 2018.
- Michigan Out of Doors T.V. - EHD Interview (begins at 17:50) Sept 9 2015 #1537. [Evaluating EHD impacts on Michigan's deer](#)
- [Effort to curb Lyme disease puts deer in the crosshairs](#) Interview as Massachusetts Deer Project Leader, October 26, 2010.