Curriculum Vitae

JACOB M. HAUS

Ph.D., Certified Wildlife Biologist® GOOGLE SCHOLAR CITATIONS WEBPAGE

• 1500 Birchmont Drive #27 • 218L Sattgast Hall • Bemidji, MN 56601 •

• 218–755–4372 • Jacob.Haus@bemidjistate.edu •

EDUCATION

2017: Ph.D. in Wildlife Ecology

Department of Entomology and Wildlife Ecology, University of Delaware

Dissertation: Survival, movement, and habitat selection of adult white-tailed deer in southern

Delaware

2016: Graduate Certificate in Statistics

Department of Applied Economics and Statistics, University of Delaware

2014: M.S. in Wildlife Ecology

Department of Entomology and Wildlife Ecology, University of Delaware

Thesis: The impact of chronic wasting disease on deer harvest and determining methods to

estimate deer abundance

2010: B.S. in Biology; emphasis in Ecology and Animal Behavior

Department of Biology, Bemidji State University

PROFESSIONAL APPOINTMENTS

Bemidji State University, Department of Biology:

2019 – present: Assistant Professor of Wildlife Biology (tenure track)

University of Delaware, Department of Entomology and Wildlife Ecology:

2018 – 2019: Postdoctoral Research Associate

2017 – 2019: Adjunct Lecturer

2012 – 2017: Graduate Research Assistant

PUBLICATIONS

Peer Reviewed Journal Articles:

- 10. Dion, J. R., A. M. Holland, J. M. Haus, J. E. Rogerson, and J. L. Bowman. 2021. Birth site selection by white-tailed deer in an area with low risk of predation. Northeastern Naturalist 28:94-105. DOI:10.1656/045.028.0108
- 9. Dion, J. R., J. M. Haus, J. E. Rogerson, and J. L. Bowman. 2020. White-tailed deer neonate survival in the absence of predators. Ecosphere 11:e03122. DOI:10.1002/ecs2.3122
- 8. Haus, J. M., J. R. Dion, M. M. Kalb, E. L. Ludwig, J. E. Rogerson, and J. L. Bowman. 2020. Interannual variability in survival rates for adult female white-tailed deer. Journal of Wildlife Management 84:675–684. DOI:10.1002/jwmg.21834
- 7. Haus, J. M., S. L. Webb, B. K. Strickland, K. P. McCarthy, J. E. Rogerson, and J. L. Bowman. 2020. Individual heterogeneity in habitat use has implications for survival in adult white-tailed deer. Ecosphere 11:e03064. DOI:10.1002/ecs2.3064
- 6. Holland, A. M., J. M. Haus, T. B. Eyler, M. D. Duda, and J. L. Bowman. 2020. Revisiting hunter perceptions toward chronic wasting disease; changes in behavior over time. Animals 10:187. DOI:10.3390/ani10020187 (invited)

- 5. Dion, J. R., J. M. Haus, J. E. Rogerson, and J. L. Bowman. 2019. An initial performance review of vaginal implant transmitters paired with GPS collars. Animal Biotelemetry 7:22. DOI:10.1186/s40317-019-0184-4
- 4. Haus, J. M., S. L. Webb, B. K. Strickland, J. E. Rogerson, and J. L. Bowman. 2019. Land use and dispersal influence mortality in white-tailed deer. Journal of Wildlife Management 83:1185–1196. DOI:10.1002/jwmg.21666
- 3. Haus, J. M., T. B. Eyler, and J. L. Bowman. 2019. A spatially and temporally concurrent comparison of popular density estimators for white-tailed deer. Northeastern Naturalist 26:305–324. DOI:10.1656/045.026.0207
- 2. Haus, J. M., J. A. Demchur, J. R. Dion, P. L. Habecker, and J. L. Bowman. 2018. Theileriosis identified in multiple neonatal white-tailed deer (*Odocoileus virginianus*) in Delaware, USA. Journal of Wildlife Diseases 54:885–888. DOI:10.7589/2018-02-044
- 1. Haus, J. M., T. B. Eyler, M. D. Duda, and J. L. Bowman. 2017. Hunter perception towards chronic wasting disease; implications for harvest and management. Wildlife Society Bulletin 41:294–300. DOI:10.1002/wsb.761

Popular Media Articles:

Haus, J. M., J. E. Rogerson, and J. L. Bowman. 2019. Bucks got wetter as they got wiser. Quality Whitetails 26(6):26–30.

Haus, J. M., J. E. Rogerson, and J. L. Bowman. 2019. Don't overlook your does; female survival drives population change. Quality Whitetails 26(2):60–62.

Haus, J. M., J. E. Rogerson, and J. L. Bowman. 2018. Danger zone; yearling buck harvest on public land. Quality Whitetails 25(5):48–52.

Dion, J. R., J. M. Haus, J. E. Rogerson, and J. L. Bowman. 2018. Born with one hoof in the grave; fawns die even without predators. Quality Whitetails 25(3):24–25.

RESEARCH GRANTS AWARDED

Total: \$756,394 External: \$751,394

As Principal Investigator: \$118,794

Funded Grant Proposals (J.M.H listed first when principal investigator):

Haus, J. M. 2020. Occupancy and abundance of snowshoe hare predators on the Leech Lake Reservation. Bemidji State University New Faculty Scholarship and Innovation Fund. \$5,000.

Bowman, J. L., and J. M. Haus. 2019. A preliminary estimate of white-tailed deer (*Odocoileus virginianus*) abundance in First State National Historical Park (DE). U.S. National Park Service. \$39,999.

Haus, J. M., M. D. Duda, and J. L. Bowman. 2018. Opinions of residents, deer hunters, and landowners on deer Management in Maryland. Maryland Wildlife and Heritage Service. \$97,359.

Bowman, J. L., E. W. Ness, and J. M. Haus. 2018. Population demographics of bobcats (*Lynx rufus*) in western Maryland. Maryland Wildlife and Heritage Service. \$232,537.

Bowman, J. L., and J. M. Haus. 2018. Habitat selection and harvest susceptibility of male wild turkeys (*Meleagris gallopavo*) in southern Delaware. Delaware Division of Fish and Wildlife. \$365,064.

Haus, J. M., and J. L. Bowman. 2017. Density of white-tailed deer and sika deer on Blackwater National Wildlife Refuge (MD). U.S. Fish and Wildlife Service. \$16,435.

Pending Grant Proposals:

Haus, J. M., and B. J. Hiller. *Recommended for funding*. Efficacy of suburban archery hunting to manage deer populations. Minnesota Environment and Natural Resources Trust Fund. \$393,000.

TEACHING

Bemidji State University (regularly taught):

BIOL4780 Wildlife Management Techniques (5 credits, Spring)

BIOL4530 Ecology and Management of Large Mammals (3 credits, Fall)

BIOL4520 Mammalogy (3 credits; Fall & Spring)

BIOL3610 Principles of Wildlife Management (3 credits, alternating Spring)

BIOL2610 General Ecology (3 credits, Fall & Spring)

BIOL4894/4895 Advanced Research Projects I/II (2 credits; Fall/Spring)

University of Delaware (Adjunct):

ENWC415 Wildlife Research Techniques (3 credits), Spring 2017-2019

ENWC201 Wildlife Conservation and Ecology (3 credits), Fall 2018

MENTORING & ADVISING

Advised Graduate Students:

Shelton, K. C. *In progress*. Abundance and occupancy of snowshoe hare (Waabooz; *Lepus americanus*) predators on the Leech Lake Ojibwe Reservation. Master's thesis. Bemidji State University.

Graduate Student Committee Member:

Horton, J. *In progress*. Hen, nest, and brood survival of greater prairie chickens in response to cattle grazing. Master's thesis. Bemidji State University.

Hardman, D. A. *In progress*. Male eastern wild turkey survival, spatial ecology, and roost behavior in Delaware. Master's thesis. University of Delaware.

Lamp, K. J. 2022. Occupancy, abundance, and population genetics of bobcats in western Maryland, USA. Master's thesis. University of Delaware.

Undergraduate Research Projects:

Harris, A. 2020. Using remote photography to assess mammalian species richness in a northern coniferous forest. McNair Scholars Program, Bemidji State University.

Piazza, C. 2015. An investigation of deer abundance in urban forest fragments in northern Delaware. University of Delaware Summer Scholars Program.

Lewis, K. 2014. Seasonal variation in resource selection of juvenile male white-tailed deer. Undergraduate senior thesis, University of Delaware.

CONFERENCE PRESENTATIONS & ACTIVITY

As First Author & Presenter:

- 24. Haus, J. M. 2020. White-tailed deer movement, survival, and fawn recruitment in a predator free system. Invited presentation to the U.S. National Park Service seminar series, virtual. Oral.
- 23. Haus, J. M., J. Nawroki, and A. M. V. Fournier. 2019. Unpaid and underpaid labor as a barrier to diversity in the wildlife profession. Invited presentation to the executive committee at The Wildlife Society 26th Annual Conference, Reno, NV. Oral.
- 22. Haus, J. M., S. L. Webb, B. K. Strickland, J. E. Rogerson, and J. L. Bowman. 2019. Individual heterogeneity in habitat use has implications for survival in adult white-tailed deer. Southeast Deer Study Group 42nd Annual Meeting Louisville, KY. Oral.
- 21. Haus, J. M., J. R. Dion, J. E. Rogerson, and J. L. Bowman. 2018. White-tailed deer neonate survival in the functional absence of predators. The Wildlife Society 25th Annual Conference, Cleveland, OH. Oral.
- 20. Haus, J. M., J. E. Rogerson, J. R. Dion, and J. L. Bowman. 2018. A comparison of white-tailed deer survival rates on public versus private land; the impact of age and sex. 9th International Deer Biology Congress, Estes Park, CO. Oral.
- 19. Haus, J. M., and J. L. Bowman. 2018. Sika deer density and crop damage; does the data support farmer perceptions? Deer Advisory Council, Blackwater National Wildlife Refuge, Cambridge, MD. Oral.
- 18. Haus, J. M., J. E. Rogerson, and J. L. Bowman. 2018. Factors influencing survival of yearling male white-tailed deer in Delaware. Northeast Fish and Wildlife 74th Annual Conference, Burlington, VT. Oral.
- 17. Haus, J. M., J. E. Rogerson, and J. L. Bowman. 2018. Factors influencing survival of yearling male white-tailed deer in Delaware. Southeast Deer Study Group 41st Annual Meeting, Nashville, TN. Oral.
- 16. Haus, J. M., J. L. Bowman, J. R. Dion, and J. E. Rogerson. 2017. Sociality of adult female white-tailed deer following parturition. The Wildlife Society 24th Annual Conference, Albuquerque, NM. Oral.
- 15. Haus, J. M., J. L. Bowman, and J. E. Rogerson. 2017. Retention of expandable collars on male white-tailed deer. Northeast Fish and Wildlife 73rd Annual Conference, Norfolk, VA. Oral.
- 14. Haus, J. M., J. L. Bowman, and J. E. Rogerson. 2017. Retention of expandable collars on male white-tailed deer. Southeast Deer Study Group 40th Annual Meeting, Saint Louis, MO. Oral.
- 13. Haus, J. M., J. L. Bowman, and J. E. Rogerson. 2016. Cause-specific mortality during an outbreak of epizootic hemorrhagic disease; a case for compensatory mortality? The Wildlife Society 23rd Annual Conference, Raleigh, NC. Oral.
- 12. Haus, J. M., J. L. Bowman, and J. E. Rogerson. 2016. Cause-specific mortality during an outbreak of epizootic hemorrhagic disease; a case for compensatory mortality? Northeast Fish and Wildlife 72nd Annual Conference, Annapolis, MD. Oral.
- 11. Haus, J. M. 2016. Spatial ecology and harvest management of white-tailed deer in Delaware. Maryland/Delaware TWS spring meeting, Georgetown, DE. Oral.

- 10. Haus, J. M., J. L. Bowman, and J. E. Rogerson. 2016. Cause-specific mortality during an outbreak of epizootic hemorrhagic disease; a case for compensatory mortality? Southeast Deer Study Group 39th Annual Meeting, Concord, NC. Oral.
- 9. Haus, J. M., J. L. Bowman, and T. B. Eyler. 2015. An evaluation of methods to estimate deer abundance. The Wildlife Society 22nd Annual Conference, Winnipeg, MB. Oral.
- 8. Haus, J. M. 2015. Tracking white-tailed deer movement for research and management. An Evening at the Hook Lecture Series. Prime Hook National Wildlife Refuge (DE). Oral.
- 7. Haus, J. M., J. L. Bowman, and T. B. Eyler. 2015. An evaluation of methods to estimate deer abundance. Southeast Deer Study Group 38th Annual Meeting, Little Rock, AR. Oral.
- 6. Haus, J. M., J. L. Bowman, and T. B. Eyler. 2014. Negative hunter attitude towards CWD; implications for harvest and management. The Wildlife Society 21st Annual Conference, Pittsburg, PA. Oral.
- 5. Haus, J. M., J. L. Bowman, and T. B. Eyler. 2014. Negative hunter attitude towards CWD; implications for harvest and management. Southeast Deer Study Group 37th Annual Meeting, Athens, GA. Oral.
- 4. Haus, J. M., J. L. Bowman, and T. B. Eyler. 2013. Variability in deer density estimators and the impact on chronic wasting disease management. The Wildlife Society 20th Annual Conference, Milwaukee, WI. Poster.
- 3. Haus, J. M., and J. L. Bowman. 2013. Summary of research in Maryland's CWD management area. Chronic Wasting Disease Interstate Meeting, Fredrick, MD. Oral.
- 2. Haus, J. M., J. L. Bowman, and T. B. Eyler. 2013. A spatially and temporally concurrent comparison of popular deer abundance estimators. Southeast Deer Study Group 36th Annual Meeting, Greenville, SC. Poster.
- 1. Haus, J. M., E. H. Rave, and R. E. Urbanek. 2010. White-tailed deer herbivory on European buckthorn (*Rhamnus cathartica*). Student Scholarship and Creative Achievement 11th annual Conference, Bemidji, MN. Oral.

As Coauthor (J.M.H listed last when research is from a mentored student):

Shelton, K. C., T. M. Roerick, J. H. Gilbert, and J. M. Haus. 2021. Abundance and occupancy of snowshoe hare predators on the Leech Lake Band of Ojibwe Reservation. The Wildlife Society 28th Annual Conference, virtual. Poster.

Harris, A. S., and J. M. Haus. 2021. Mammalian activity patterns and temporal segregation in a northern conifer forest. 81st Annual Midwest Fish and Wildlife Conference, virtual. Poster.

Holland, A. M., J. M. Haus, T. B. Eyler, M. D. Duda, and J. L. Bowman. 2020. Revisiting hunter perceptions toward chronic wasting disease: changes in behavior over time. Southeast Deer Study Group 43rd Annual Meeting, Auburn, AL. Oral.

Hardman, D. A., J. M. Haus, J. R. Foth and J. L. Bowman. 2019. Survival of adult and juvenile eastern wild turkey males in Delaware. The Wildlife Society 26th Annual Conference, Reno, NV. Poster.

Lamp, K. J., J. M. Haus, H. Spiker, L. P. Waits, and J. L. Bowman. 2019. Assessment of noninvasive surveying methods for bobcats in western Maryland. The Wildlife Society 26th Annual Conference, Reno, NV. Poster.

Bowman, J. L., J. M. Haus, D. M. Kalb, and T. B. Eyler. 2018. The history and management of sika deer in Maryland. 9th International Deer Biology Congress, Estes Park, CO. Oral.

Dion, J. R., J. L. Bowman, J. M. Haus and J. E. Rogerson. 2017. Twenty years of the modern vaginal implant transmitter; then and now. Northeast Fish and Wildlife 73rd Annual Conference, Norfolk, VA. Oral.

Symposiums, Workshops, and Panel Discussions:

Invited panel member. 2022. A future PI training session: how do I get the job, and what do I do once I have it? The Wildlife Society 29th Annual Conference, Spokane, WA.

Lead organizer. 2021. Leadership through Conservation Challenges. Minnesota State Chapter of The Wildlife Society summer workshop. Virtual.

Invited panel member. 2015. Wildlife Capture Techniques for Research and Management. The Wildlife Society 22nd Annual Conference, Winnipeg, MB.

SERVICE TO PROFESSION

Offices Held:

2020 - 2022: Member-at-Large, Minnesota Chapter of The Wildlife Society Executive Board 2017 - 2019: Treasurer; Maryland-Delaware Chapter of The Wildlife Society Executive Board

Peer Reviews Conducted for:

Journal of Wildlife Management [9]; Wildlife Society Bulletin [6]; Journal of Fish and Wildlife Management [3]; Ecology and Evolution [2]; Urban Ecosystems [2]; Northeastern Naturalist [2]; PLOS ONE [1]; Diversity [1]; Evolutionary Ecology [1]; Human-Wildlife Interactions [1]; Total: 28

Service to Community & Professional Societies:

2021 - present: Member, Chronic Wasting Disease Action Coalition 2019 - present: Advisor; City of Bemidji Deer Management Committee

2019 - present: Faculty advisor; Bemidji State University student chapter of The Wildlife Society

2018 - present: Abstract reviewer; The Wildlife Society National Conference

Service to Bemidji State University:

2022 - present: Biology representative, Faculty Senate

2022 - present: BIO Fund committee member, Department of Biology 2022 - present: Graduate faculty representative [committees served: 1]

PROFESSIONAL MEMBERSHIPS

2019 - present: American Society of Mammalogists

2012 - present: Boone and Crockett Club 2010 - present: National Deer Association

2008 - present: The Wildlife Society

- Certified Wildlife Biologist® (2020)

- Hunting, Trapping, and Conservation Working Group

- Spatial Ecology Working Group

- College and University Education Working Group

Pope and Young Club 2003 - present:

1998 - present: Minnesota Deer Hunters Association

AWARDS	& HONORS	(\$3,900.00)
---------------	----------	--------------

2022: Service to Chapter Award. The Minnesota Chapter of The Wildlife Society.

2019: Leadership Institute Travel Grant. The Wildlife Society 26th Annual Conference, Reno, NV. \$1,600.

2015: Student Travel Grant. The Wildlife Society 22nd Annual Conference, Winnipeg, MB. \$450.

2015: Professional Development Award. University of Delaware Office of Graduate and Professional Education. \$500.

2013: Student Research Travel Award. University of Delaware Department of Entomology and Wildlife Ecology. \$500.

2013: Outstanding Student Poster Presentation, 1st Place, Southeast Deer Study Group 36th Annual Meeting, Greenville, SC. \$250.

2013: Professional Development Award. University of Delaware Office of Graduate and Professional Education. \$600.

PROFESSIONAL DEVELOPMENT & CERTIFICATIONS

2019: Leadership Institute. The Wildlife Society.

2018: Protection of Human Subjects in Research; Social, Behavioral, and Educational. Collaborative Institutional Training Initiative.

2017: Responsible Conduct of Research. Office of Graduate and Professional Education. University of Delaware, Newark, DE.

2016: AniMove Workshop: Fundamentals of Animal Movement Analysis. Senckenberg Biodiversity and Climate Research Center, Frankfurt, Germany.

2014: Rocket Net Explosives Safety Training. USDA-APHIS Wildlife Services. Atlantic City, NJ.

2013: Chemical Immobilization of Animals Workshop. Safe-Capture International, Inc. Laurel, MD.

2003: Advanced Hunter Education Certification. Minnesota Department of Natural Resources.

2000: Firearms Safety Certification. Minnesota Department of Natural Resources.

MEDIA COVERAGE OF RESEARCH

2021: College Students Participate in Annual City-Wide Deer Surveys. Grand Forks Herald, Grand Forks, ND. <u>Link</u>.

2021: Dr. Jake Haus on BSU Wildlife Biology Initiatives. Paul Bunyan Country Radio. Link.

2020: The 20 Biggest Deer Research Discoveries of the Last Decade. National Deer Association.

Link.

2020: #108 - Dr. Jacob Haus on Public Land Mature Buck Movement and Hunting. Hunt the Land Podcast. Link.

2020:	Wolves, deer and more: Bemidji State University trail cam study brings forest wildlife activities and patterns into focus after COVID-19 shutdown limits fieldwork. Grand Forks Herald, Grand Forks, ND. <u>Link</u> .
2019:	Interview for Lakeland Public News TV segment on white-tailed deer management. <u>Link</u> .
2019:	Deer Science and Bowhunting Success. Peterson's Bowhunting magazine (Jan/Feb edition).
2018:	Sika Deer Up or Down at Blackwater? Depends Who You Ask. Delmarva Now. Link.
2018:	A Degree in Deer; Haus earns Doctorate in Wildlife Ecology. Sauk Rapids Herald, Sauk Rapids, MN.
2014:	How Many Deer on Green Ridge? Cumberland Times-News, Cumberland, MD. Link.

LAST UPDATED 22 SEPTEMBER 2022