



Ty J. Werdel

ASSISTANT PROFESSOR

Department of Rangeland, Wildlife and Fisheries Management - Texas A&M University, College Station, TX

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My research interests include the fields of Wildlife Management and Landscape Ecology. This work addresses questions that provide insight into the relationships between wildlife, native environments, and contemporary human-modified landscapes. I am also interested in software programming to advance my professional acumen, with this CV being compiled with code.

Education

Ph.D. Horticulture and Natural Resources

KANSAS STATE UNIVERSITY

Manhattan, KS

2022

M.S. Wildlife Sciences

SOUTH DAKOTA STATE UNIVERSITY

Brookings, SD

2017

B.S. Rangeland and Wildlife Management

CHADRON STATE COLLEGE

Chadron, NE

2013

Certifications

Esri Academy ArcGIS (9 Certifications)

ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE

Online

2021

Professional Certification in Data Analysis for Life Sciences (R)

HARVARDX, HARVARD UNIVERSITY

Online

2020

GTA Certificate of Achievement in Professional Development

KANSAS STATE UNIVERSITY

Manhattan, KS

2020

Faculty Exchange for Teaching Excellence

KANSAS STATE UNIVERSITY

Manhattan, KS

2020

Associate Wildlife Biologist®

THE WILDLIFE SOCIETY

Online

2016

Graduate Certification in Geospatial Technology

SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY

Rapid City, SD

2016

Project WILD/Project WILD Aquatic

ASSOCIATION OF FISH AND WILDLIFE AGENCIES

Chadron, NE

2013

Employment

Assistant Professor

DEPARTMENT OF RANGELAND, WILDLIFE, AND FISHERIES MANAGEMENT, TEXAS A&M UNIVERSITY

College Station, TX

2023 – Present

Vice Chancellor's Postdoctoral Research Fellow

DEPARTMENT OF RANGELAND, WILDLIFE, AND FISHERIES MANAGEMENT, TEXAS A&M UNIVERSITY

College Station, TX

2022 – 2023

Graduate Research and Teaching Assistant

DEPARTMENT OF HORTICULTURE AND NATURAL RESOURCES, KANSAS STATE UNIVERSITY

Manhattan, KS

2017 – 2022

Graduate Research and Teaching Assistant

DEPARTMENT OF NATURAL RESOURCE MANAGEMENT, SOUTH DAKOTA STATE UNIVERSITY

Brookings, SD

2014 – 2017

GIS Technician

NORTH PLATTE NATURAL RESOURCES DISTRICT

Scottsbluff, NE

2014 – 2014

Undergraduate Researcher

SEVILLETA LTER RESEARCH EXPERIENCE

Socorro, NM

2013 – 2013

Publications

Peer-Reviewed

1. Werdel, T.J., C.W. Piper, A.M. Ricketts, M.S. Peek, and A.A. Ahlers. **2023**. Direct and indirect landscape-scale pathways structure carnivore communities in an agro-prairie ecosystem. *Journal of Mammalogy*. <https://doi.org/10.1093/jmammal/gyad065>
2. Werdel, T.J., J.A. Jenks, J.T. Kanta, C.P. Lehman, and T.J. Frink. **2023**. Resource selection and herbaceous biomass at foraging sites of translocated bighorn sheep. *Rangeland Ecology and Management*. <https://doi.org/10.1016/j.rama.2022.12.004>
3. Werdel, T.J., C.W. Piper, A.M. Ricketts, M.S. Peek, D.S. Sullins, and A.A. Ahlers. **2023**. Strategic grassland conservation for swift foxes in multi-use landscapes. *Biological Conservation*. <https://doi.org/10.1016/j.biocon.2022.109864>
4. Palomo-Muñoz, G, T.J. Werdel, C.W. Piper, M.S. Peek, A.M. Ricketts, and A.A. Ahlers. **2022**. Spatiotemporal distributions of mammals occurring in an agro-prairie ecosystem. *Ecology*. <https://doi.org/10.1002/ecy.3945>
5. Werdel, T.J., C.W. Piper, A.M. Ricketts, M.S. Peek, and A.A. Ahlers. **2022**. Scale-specific landscape effects impose range-limiting constraints on the distribution of swift fox. *Landscape Ecology*, 37(8), 2065–2079. <https://doi.org/10.1007/s10980-022-01466-0>
6. Werdel, T.J., J.A. Jenks, J.T. Kanta, C.P. Lehman, and T.J. Frink. **2021**. Space use and movement patterns of translocated bighorn sheep. *Mammalian Biology*, 101(3), 329–344. <https://doi.org/10.1007/s42991-021-00107-4>
7. Werdel, T.J., J.A. Jenks, T.E. Besser, J.T. Kanta, C.P. Lehman, and T.J. Frink. **2019**. Restoration of a bighorn sheep population impeded by *Mycoplasma ovipneumoniae* exposure. *Restoration Ecology*, 28(2), 387–395 (Cover Article). <https://doi.org/10.1111/rec.13084>
8. Werdel, T.J., J.A. Jenks, T.E. Besser, J.T. Kanta, C.P. Lehman, and T.J. Frink. **2018**. Survival of translocated bighorn sheep in the Deadwood region of the Black Hills, South Dakota. *Northwestern Naturalist*, 99(3), 222–231. <https://doi.org/10.1898/NWN18-06.1>

Book Chapters

1. Hessami, M.A., T.J. Werdel, S.J. Hoagland, and M.T. Kohl. **2022**. Melding Past, Present, and Future: The importance of tribal management in wildlife conservation and management. Chapter 1 in C. Bishop, E. Gomez, J. Organ, and T. Ryder eds. *Introduction to Wildlife Management and Conservation in North America*. Great River Learning of Dubuque, IA.

Book Reviews

1. Werdel, T.J. **2023**. Wildlife Management and Landscapes: Principles and Applications. *Journal of Wildlife Management In Press*.

In-Revision/Review

2. Piper, C.W., T.J. Werdel, M.S. Peek, A.M. Ricketts, D.S. Sullins, and A.A. Ahlers. **In-Revision**. Landscape composition and proximity to water structure American badger distributions in shortgrass prairie. *Journal of Mammalogy*.
1. Werdel, T.J., M. Fidino, C.W. Piper, A.M. Ricketts, M.S. Peek, and A.A. Ahlers. **In-Revision**. Landscape composition mediates spatiotemporal interactions among sympatric canids in a prairie ecosystem. *Ecological Applications*.

Teaching Experience

Texas A&M University

INSTRUCTOR

- Techniques of Wildlife Management, RWFM 408 & WFSC 638

College Station, TX
2023 – Present

Texas A&M University

CO-INSTRUCTOR

- Special Topics in Traditional Ecological Knowledge, RWFM 689
- Techniques of Wildlife Management, RWFM 408 & WFSC 638

College Station, TX
2022 – 2023

Kansas State University

GRADUATE TEACHING ASSISTANT

- Firearms Cartridges and Ballistics, WOEM 201
- Rifle and Handgun Range Design, Construction and Operations, WOEM 202
- Introduction to Wildlife and Outdoor Enterprise Management, WOEM 250
- Flora and Fauna of the Great Plains, WOEM 350
- Big Game Management, WOEM 555
- Waterfowl and Wetlands Management, WOEM 561
- Advanced Wildlife Habitat Management, WOEM 562

Manhattan, KS

2017 – 2022

South Dakota State University

GRADUATE TEACHING ASSISTANT

- Introduction to Wildlife and Fisheries, WL 220

Brookings, SD

2014 – 2017

Student Mentorship

Graduate Student Advising

Lulu Hoffman, M.S.

2023 – Present

Kayla Art, M.N.R.D.

2023 – Present

David Pearce, M.S.

2023 – Present

Conner Ties, M.S.

2022 – Present

Undergraduate Student Research Advising

Daniel Whitman, R.E.U.

2023 – 2023

Drake Dancila, B.S.

2022 – 2023

Lulu Hoffman, B.S.

2022 – 2023

Student Honors & Awards

RWFM Graduate Student Travel Grant, Conner Ties

2023

RWFM Graduate Student Travel Grant, David Pearce

2023

RWFM Excellence Award for Undergraduates, Drake Dancila

2023

RWFM Excellence Award for Undergraduates, Lulu Hoffman

2023

Investigator Grants & Contracts

Funded (Total: \$3,571,077, Lab Allocated: \$371,200)

7. **Private Donation**. 2023. Student-led population ecology of fox squirrels on the TAMU campus. **\$10,000; Funded**. PI: **Ty J. Werdel**.
6. **USFWS**. 2023-2027. Evaluation and mitigation for sensitive state threatened and endangered wildlife. **\$3,399,877; Funded**. Co-PIs: Marcus Blum, Paul Crump, Jacob Dykes, Whitney Gann, Andrew Gregory, Toby Hibbitts, Mathew Kramm, Roel Lopez, Kevin Moczygemba, Michael Morrison, Humberto Perotto, Wady Ryberg, Danielle Walkup, Stephen Webb, and **Ty J. Werdel** (Lab Allocated: \$200,000).
5. **National Science Foundation**. 2023-2025. Incorporating Native American partnerships and knowledge into Great Plains fire science. **\$199,404; Under Review**. PI: David Matarrita, Co-PIs: Bradford Wilcox and **Ty J. Werdel**.
4. **USDA APHIS Wildlife Services**. 2023-2024. Spatial interactions and potential disease transmission of free-ranging native and exotic ungulates. **\$225,437; Not Funded**. PI: **Ty J. Werdel**.
3. **Department of Rangeland, Wildlife and Fisheries Management**. 2023-2024. Long-term wildlife monitoring for unmanaged rangelands transitioning to planned grazing management. **\$100,000; Funded**. PIs: Stephen L. Webb and **Ty J. Werdel**.
2. **Private Donation**. 2023. Long-term wildlife monitoring for unmanaged rangelands transitioning to planned grazing management. **\$1,200; Funded**. PI: **Ty J. Werdel**.
1. **Department of Rangeland, Wildlife and Fisheries Management**. 2023-2025. River otter (*Lontra canadensis*) population dynamics in Texas. **\$60,000; Funded**. PI: **Ty J. Werdel**.

Honors & Awards

Awards (\$121,150)

Community Building Through Mentorship Conference Panel Travel Grant , The Wildlife Society	2022
Agriculture Dean and Director's Award for Graduate Student Research , Kansas State University	2022
Advancing Agricultural Science Opportunities for Native Americans Scholarship , AISES	2021
Robert Nunemacher Scholarship , Kansas State University	2021
Advancing Agricultural Science Opportunities for Native Americans Research Award , AISES	2020
Advancing Agricultural Science Opportunities for Native Americans Scholarship , AISES	2020
Lighting the Pathway to Faculty Careers for Natives in STEM , AISES	2020
College of Agriculture Graduate Student Recognition of Achievement , Kansas State University	2020
AISES Together Towards Tomorrow T3 Scholarship , AISES	2020
Gamma Sigma Delta , Kansas State University	2019
AISES Travel Grant , AISES	2019
Advancing Agricultural Science Opportunities for Native Americans Scholarship , AISES	2019
Kansas State University Graduate Student Recognition of Achievement , Kansas State University	2019
College of Agriculture Graduate Student Recognition of Achievement , Kansas State University	2019
Inclusive Pedagogy Travel Grant , The Wildlife Society	2018
Life Membership Fund Scholarship , Wild Sheep Foundation	2018
Predoctoral Ford Fellowship , (Honorable Mention) Ford Foundation Fellowships Program	2018
Native Student Professional Development Grant , The Wildlife Society	2017
Launch Collegiate Business Pitch Competition , Kansas State University	2017
Native Student Professional Development Grant , The Wildlife Society	2016
Phi Kappa Phi Honor Society , South Dakota State University	2016
Excellence in Wildlife Management , Chadron State College	2013
Platinum Eagle Award , (Finalist) Chadron State College	2013
Gates Millennium Scholarship , Bill and Melinda Gates Foundation	2005
Scholastic Excellence in Engineering , University of Wyoming	2005
Scholars Stipend , University of Wyoming	2005
Computer Science, Engineering, and Mathematics Scholarship , University of Wyoming	2005
Honors Program , University of Wyoming	2005

Professional Service

Executive Service in Professional Organizations

Grant Committee

NATIVE STUDENT PROFESSIONAL DEVELOPMENT GRANT

The Wildlife Society

2023 – Present

Program Coordinator

NATIVE STUDENT PROFESSIONAL DEVELOPMENT GRANT

The Wildlife Society

2018 – 2023

Secretary/Treasurer

CENTRAL MOUNTAINS AND PLAINS SECTION

The Wildlife Society

2018 – 2021

Working Group Membership

Rangeland Wildlife Working Group, The Wildlife Society

2018 – Present

Native Peoples' Wildlife Management Working Group, The Wildlife Society

2015 – Present

Student Development Working Group, The Wildlife Society

2013 – 2022

Chapter Membership

Southwest Section, The Wildlife Society

2023 – Present

Texas Chapter, The Wildlife Society

2023 – Present

Central Mountains and Plains Section, The Wildlife Society

2018 – 2022

Kansas Chapter, The Wildlife Society

2017 – 2022

South Dakota Chapter, The Wildlife Society

2014 – 2017

Nebraska Chapter, The Wildlife Society

2013 – 2014

Chadron State Student Chapter, The Wildlife Society

2012 – 2013

Professional Organization Membership

Society for Range Management

2023 – Present

Society for Advancement of Chicanos/Hispanics and Native Americans in Science

2021 – Present

Gamma Sigma Delta Honor Society

2019 – Present

American Indian Science and Engineering Society

2019 – Present

Swift Fox Conservation Team

2018 – Present

Phi Kappa Phi Honor Society

2016 – Present

Native American Fish and Wildlife Society

2015 – Present

Rocky Mountain Bighorn Society

2015 – 2017

Wild Sheep Foundation

2014 – 2020

American Society of Mammalogists

2013 – Present

The Wildlife Society

2013 – Present

External Journal Reviewer

**Canadian Journal of Zoology, Frontiers in Ecology and the Environment, Journal of Mammalogy,
Journal of Wildlife Management, PeerJ (2), Science**

University Service

Texas A&M University

Faculty Advisor, TAMU Student Chapter of The Wildlife Society

2023 – Present

Department

Caesar Kleberg Chair Search Committee, RWFM

2023 – Present

Awards Committee, RWFM

2023 – Present

Undergraduate Committee, RWFM

2023 – Present

Presentations

Contributed (*WERDEL WILDLIFE LAB MEMBER)

25. A.D. Dancila*, **Werdel, T.J.**, S.M. Chinn, J.C. Beasley, and S.L. Webb. **2023.** Analysis of reproductive parameters of wild pigs in southcentral Oklahoma. *RWFM Convocation, College Station, TX.*
24. M.G. Hoffman*, M.D. Proctor, **Werdel, T.J.**, and S.L. Webb. **2023.** Activity patterns and potential interactions among cattle, white-tailed deer, and wild pigs. *RWFM Convocation, College Station, TX.*
23. D. Whitman* and **Werdel, T.J.**. **2023.** Fine-scale landscape features influence fox squirrel presence on urban campus. *LAUNCH Summer Undergraduate Research Symposium, College Station, TX.*
22. D. Whitman* and **Werdel, T.J.**. **2023.** Campus fox squirrel presence influenced by fine-scale landscape characteristics. *College of Agriculture and Life Sciences Summer Undergraduate Research Symposium, College Station, TX.*
21. M.G. Hoffman*, **Werdel, T.J.**, M.D. Proctor, and S.L. Webb. **2023.** Activity patterns and potential interactions among cattle, white-tailed deer, and wild pigs. *Ecological Integration Symposium, College Station, TX.*
20. A.D. Dancila*, **Werdel, T.J.**, S.M. Chinn, J.C. Beasley, and S.L. Webb. **2023.** Analysis of reproductive parameters of wild pigs in southcentral Oklahoma. *TAMU Student Research Week, College Station, TX.*
19. M.G. Hoffman*, M.D. Proctor, **Werdel, T.J.**, and S.L. Webb. **2023.** Activity patterns and potential interactions among cattle, white-tailed deer, and wild pigs. *TAMU Student Research Week, College Station, TX.*
18. **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M.S. Peek, D.S. Sullins, and A.A. Ahlers. **2023.** Strategic grassland conservation for swift foxes in multi-use landscapes. *Texas Chapter of The Wildlife Society Annual Conference, Houston, TX.*
17. **Werdel, T.J.**, C.W. Piper, M.S. Peek, A.M. Ricketts, and A.A. Ahlers. **2023.** Landscape-scale effects structure carnivore communities in an agro-prairie ecosystem. *Kansas Natural Resources Conference, Manhattan, KS.*
16. **Werdel, T.J.**, C.W. Piper, M.S. Peek, A.M. Ricketts, D.S. Sullins, and A.A. Ahlers. **2023.** Strategic grassland conservation for swift foxes in multi-use landscapes. *Kansas Natural Resources Conference, Manhattan, KS.*
15. Palomo-Muñoz, G., **T.J. Werdel**, C.W. Piper, M. Fidno, A.M. Ricketts, and A.A. Ahlers. **2022.** Local-scale habitat structure mediates interactions between coyotes and lagomorphs. *101st Annual Meeting of the American Society of Mammalogists, Tucson, AZ.*
14. **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2021.** Scale-specific landscape effects impose range-limiting constraints on the distribution of swift foxes. *The Wildlife Society 28th Annual Conference, Virtual.*
13. Piper, C.W, **T.J. Werdel**, A.M. Ricketts, D. Sullins, M. Peek, and A.A. Ahlers. **2021.** Landscape composition and proximity to water structure American badger distributions in shortgrass prairies. *The Wildlife Society 28th Annual Conference, Virtual.*
12. **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2021.** Multiscale landscape effects impose range-limiting constraints on the distribution of swift fox. *Swift Fox Conservation Team Meeting, Virtual.*
11. **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2021.** Multiscale landscape effects impose range-limiting constraints on the distribution of swift fox. *Midwest Association of Fish and Wildlife Agencies Furbearer Workshop, Virtual.*
10. Piper, C.W, **T.J. Werdel**, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2021.** Landscape composition and proximity to water structure American badger (*Taxidea taxus*) distributions in shortgrass prairies. *Midwest Association of Fish and Wildlife Agencies Furbearer Workshop, Virtual.*
9. **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2020.** Assessing factors that influence occupancy and colonization of swift fox in western Kansas. *Kansas Natural Resources Conference, Manhattan, KS.*
8. **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2019.** Assessing factors that shape carnivore diversity in shortgrass prairie ecosystems. *American Fisheries Society and The Wildlife Society 2019 Joint Annual Conference, Reno, NV.*
7. **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2019.** Carnivore richness and diversity is driven by landscape change in shortgrass prairie ecosystems. *99th Annual Meeting of the American Society of Mammalogists, Washington, D.C.*
6. **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2019.** Landscape effects on swift fox occupancy in western Kansas. *South-west/Midwest Joint Furbearer Meeting, Enid, OK.*
5. **Werdel, T.J.**, A.M. Ricketts, and A.A. Ahlers. **2019.** Landscape change structures carnivore communities in shortgrass prairie ecosystems. *Kansas Natural Resources Conference, Manhattan, KS.*
4. **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. **2018.** Assessing the spatial distribution of swift fox in western Kansas. *The Wildlife Society 25th Annual Conference, Cleveland, OH.*
3. **Werdel, T.J.**, J.A. Jenks. **2018.** Survival of bighorn sheep in the Deadwood region of the Black Hills. *Nebraska/Central Mountains and Plains Section of The Wildlife Society Annual Meeting, Kearney, NE.*
2. **Werdel, T.J.**, J.A. Jenks, J. Kanta, and C. Lehman. **2016.** Evaluation of the Deadwood bighorn sheep herd translocation. *The Wildlife Society 23rd Annual Conference, Raleigh, NC.*
1. **Werdel, T.J.**. **2013.** Small mammal population and diversity in relation to prairie dog reintroduction sites. *Sevilleta LTER Research Experience for Undergraduates Summer Symposium, Socorro, NM.*

Invited

TEK of Wetlands

KANSAS STATE UNIVERSITY

Manhattan, KS

2023

TEK: A Place-Based Perspective

THE SACNAS DIVERSITY IN RESEARCH SYMPOSIUM

College Station, TX

2023

Community Building Through Mentorship Panel

THE WILDLIFE SOCIETY ANNUAL CONFERENCE

Spokane, WA

2022

Applied Wildlife Management: A Landscape Ecology Approach

TEXAS A&M UNIVERSITY

College Station, TX

2021

Traditional Ecological Knowledge: A Place-Based Perspective

TEXAS A&M UNIVERSITY

College Station, TX

2021

Distribution of Swift Fox in Kansas

KANSAS DEPARTMENT OF WILDLIFE, PARKS AND TOURISM

Emporia, KS

2021

Keynote Speaker: Youth Wildlife Conservation Experience

WILD SHEEP FOUNDATION SHEEP SHOW

Reno, NV

2019

Inclusive Pedagogy Student Panel

THE WILDLIFE SOCIETY ANNUAL CONFERENCE

Cleveland, OH

2018

Marlatt STEM Night

MARLATT ELEMENTARY SCHOOL

Manhattan, KS

2018

Initiating a Student Chapter of The Wildlife Society

HASKELL INDIAN NATIONS UNIVERSITY

Lawrence, KS

2018

Toyota STEM Speaker

RED CLOUD INDIAN SCHOOL

Pine Ridge, SD

2016

Deadwood Bighorn Sheep Translocation

SOUTH DAKOTA GAME, FISH, AND PARKS

Rapid City, SD

2015

Bighorn Sheep and Community Interaction

KIWANIS CLUB

Lead, SD

2015

Graduate School Experience and Preparation

CHADRON STATE COLLEGE

Chadron, NE

2015

Project WILD, Children and Wildlife

RED CLOUD INDIAN SCHOOL

Pine Ridge, SD

2013

Guest Lectures

Occupancy Models to Study Wildlife

RWFM 689 - TEXAS A&M UNIVERSITY

College Station, TX

2023

Professional Wildlife Certification

RWFM 481 - TEXAS A&M UNIVERSITY

College Station, TX

2023

Why I hunt

RWFM 489 - TEXAS A&M UNIVERSITY

College Station, TX

2023

Wildlife Professional Experience

RWFM 305 - TEXAS A&M UNIVERSITY

College Station, TX

2022

Bighorn Sheep Capture and Monitoring Techniques

WOEM 555 - KANSAS STATE UNIVERSITY

Manhattan, KS

2022

Traditional Ecological Knowledge (TEK) of Wetlands

WOEM 561 - KANSAS STATE UNIVERSITY

Manhattan, KS

2021

Bighorn Sheep Capture and Monitoring Techniques

WOEM 555 - KANSAS STATE UNIVERSITY

Manhattan, KS

2021

Wild Sheep Natural History

WOEM 350 - KANSAS STATE UNIVERSITY

Manhattan, KS

2021

Bighorn Sheep Capture and Monitoring Techniques

WOEM 555 - KANSAS STATE UNIVERSITY

Manhattan, KS

2020

Traditional Ecological Knowledge (TEK) of Wetlands

WOEM 561 - KANSAS STATE UNIVERSITY

Manhattan, KS

2019

Bighorn Sheep Monitoring

WOEM 555 - KANSAS STATE UNIVERSITY

Manhattan, KS

2018