



# 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

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### Peer-Reviewed

8. 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>
7. 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>
6. 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>
5. 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>
4. 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>
3. 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>
2. 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/https://doi.org/10.1111/rec.13084>
1. 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.

### 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

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### Texas A&M University

#### INSTRUCTOR

- Techniques of Wildlife Management, RWFM 408 & RWFM 608

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

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### Graduate Student Advising

**Lulu Hoffman**, M.S.

2023 – Present

**David Pearce**, M.S.

2023 – Present

**Conner Ties**, M.S.

2022 – Present

### Undergraduate Student Research Advising

**Daniel Whitman**, REU

2023 – 2023

**Drake Dancila**, B.S.

2022 – 2023

**Lulu Hoffman**, B.S.

2022 – 2023

## Investigator Grants & Contracts

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### Funded (\$171,200)

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; Under Review**. 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**.
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; Under Review**. 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

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### Awards (\$121,150)

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

## Professional Service

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### *Executive Service in Professional Organizations*

#### **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

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### *Texas A&M University*

**Faculty Advisor**, TAMU Student Chapter of The Wildlife Society

2023 – Present

### *Department*

**Awards Committee**, RWFM

2023 – Present

**Undergraduate Committee**, RWFM

2023 – Present

# Presentations

## Contributed (\*WERDEL WILDLIFE LAB MEMBER)

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 2023, 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. *Southwest/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. *Seville LTER Research Experience for Undergraduates Summer Symposium, Socorro, NM*.

## Invited

### 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

<b>Applied Wildlife Management: A Landscape Ecology Approach</b> TEXAS A&M UNIVERSITY	College Station, TX 2021
<b>Traditional Ecological Knowledge: A Place-Based Perspective</b> TEXAS A&M UNIVERSITY	College Station, TX 2021
<b>Distribution of Swift Fox in Kansas</b> KANSAS DEPARTMENT OF WILDLIFE, PARKS AND TOURISM	Emporia, KS 2021
<b>Keynote Speaker: Youth Wildlife Conservation Experience</b> WILD SHEEP FOUNDATION SHEEP SHOW	Reno, NV 2019
<b>Inclusive Pedagogy Student Panel</b> THE WILDLIFE SOCIETY ANNUAL CONFERENCE	Cleveland, OH 2018
<b>Marlatt STEM Night</b> MARLATT ELEMENTARY SCHOOL	Manhattan, KS 2018
<b>Initiating a Student Chapter of The Wildlife Society</b> HASKELL INDIAN NATIONS UNIVERSITY	Lawrence, KS 2018
<b>Toyota STEM Speaker</b> RED CLOUD INDIAN SCHOOL	Pine Ridge, SD 2016
<b>Deadwood Bighorn Sheep Translocation</b> SOUTH DAKOTA GAME, FISH, AND PARKS	Rapid City, SD 2015
<b>Bighorn Sheep and Community Interaction</b> KIWANIS CLUB	Lead, SD 2015
<b>Graduate School Experience and Preparation</b> CHADRON STATE COLLEGE	Chadron, NE 2015
<b>Project WILD, Children and Wildlife</b> RED CLOUD INDIAN SCHOOL	Pine Ridge, SD 2013

### *Guest Lectures*

<b>Occupancy Models to Study Wildlife</b> RWFM 689 - TEXAS A&M UNIVERSITY	College Station, TX 2023
<b>Professional Wildlife Certification</b> RWFM 481 - TEXAS A&M UNIVERSITY	College Station, TX 2023
<b>Why I hunt</b> RWFM 489 - TEXAS A&M UNIVERSITY	College Station, TX 2023
<b>Wildlife Professional Experience</b> RWFM 305 - TEXAS A&M UNIVERSITY	College Station, TX 2022
<b>Bighorn Sheep Capture and Monitoring Techniques</b> WOEM 555 - KANSAS STATE UNIVERSITY	Manhattan, KS 2022
<b>Traditional Ecological Knowledge (TEK) of Wetlands</b> WOEM 561 - KANSAS STATE UNIVERSITY	Manhattan, KS 2021
<b>Bighorn Sheep Capture and Monitoring Techniques</b> WOEM 555 - KANSAS STATE UNIVERSITY	Manhattan, KS 2021
<b>Wild Sheep Natural History</b> WOEM 350 - KANSAS STATE UNIVERSITY	Manhattan, KS 2021
<b>Bighorn Sheep Capture and Monitoring Techniques</b> WOEM 555 - KANSAS STATE UNIVERSITY	Manhattan, KS 2020
<b>Traditional Ecological Knowledge (TEK) of Wetlands</b> WOEM 561 - KANSAS STATE UNIVERSITY	Manhattan, KS 2019
<b>Bighorn Sheep Monitoring</b> WOEM 555 - KANSAS STATE UNIVERSITY	Manhattan, KS 2018