



# Ty J. Werdel

VICE CHANCELLOR'S POSTDOCTORAL FELLOW

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

### Vice Chancellor's Postdoctoral Research Fellow

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

College Station, TX

2022 – Present

### 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

### Construction Foreman

WERDEL STEEL CONSTRUCTION

Chadron, NE

1998 – 2013

# Teaching Experience

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## Texas A&M University

### CO-INSTRUCTOR

- Techniques of Wildlife Management, RWFM 408 & WFSC 638

College Station, TX

2022

## 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

# Publications

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## Peer-Reviewed

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. <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. **In-Press**. Melding Past, Present, and Future: The importance of tribal management in wildlife conservation and management. Chapter 1 in E. Gomez, C. Bishop, Ryder, and Organ eds. *Wildlife Management and Conservation in North America: An Overview*. Great River Learning of Dubuque, IA.

## In-Revision/Review

6. Palomo-Muñoz, G, **T.J. Werdel**, C.W. Piper, M.S. Peek, A.M. Ricketts, and A.A. Ahlers. **In-Revision**. Spatiotemporal distributions of mammals occurring in an agro-prairie ecosystem. *Ecology*.
5. **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M.S. Peek, and A.A. Ahlers. **In-Revision**. Landscape-scale effects structure carnivore communities in an agro-prairie ecosystem. *Journal of Mammalogy*.
4. Piper, C.W., **T.J. Werdel**, M.S. Peek, A.M. Ricketts, D.S. Sullins, and A.A. Ahlers. **In-Revision**. Spatiotemporal distributions of mammals occurring in an agro-prairie ecosystem. *Journal of Mammalogy*.
3. **Werdel, T.J.**, J.A. Jenks, J.T. Kanta, C.P. Lehman, and T.J. Frink. **In-Review**. Resource selection and herbaceous biomass at foraging sites of translocated bighorn sheep. *Rangeland Ecology and Management*.
2. **Werdel, T.J.**, M. Fidino, C.W. Piper, A.M. Ricketts, M.S. Peek, and A.A. Ahlers. **In-Review**. Landscape composition mediates spatiotemporal interactions among sympatric canids in a prairie ecosystem. *Ecological Applications*.
1. **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M.S. Peek, D.S. Sullins, and A.A. Ahlers. **In-Review**. Strategic grassland conservation to improve conservation outcomes for swift foxes in a multi-use landscape. *Biological Conservation*.

## Investigator Grants & Contracts

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Funded (\$160,000)

2. **Department of Rangeland, Wildlife and Fisheries Management.** 2023-2024. Long-term wildlife monitoring for unmanaged rangelands transitioning to planned grazing management. **\$100,000.** Co-PIs: Stephen L. Webb and **Ty J. Werdel.**
1. **Department of Rangeland, Wildlife and Fisheries Management.** 2023-2025. River otter (*Lontra canadensis*) population dynamics in Texas. **\$60,000.** 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 – Present

### **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 – Present

## *Chapter Membership*

**Central Mountains and Plains Section**, The Wildlife Society

2018 – Present

**Kansas Chapter**, The Wildlife Society

2015 – Present

**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 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*

**Journal of Mammalogy, PeerJ, Canadian Journal of Zoology**

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# Presentations

## Contributed

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. *Sevilleleta LTER Research Experience for Undergraduates Summer Symposium, Socorro, NM*.

## Invited

### Community Building Through Mentorship Panel

THE WILDLIFE SOCIETY ANNUAL CONFERENCE

Spokane, WA

2022

### Wildlife Professional Experience

TEXAS A&M UNIVERSITY

College Station, TX

2022

### Bighorn Sheep Capture and Monitoring Techniques

KANSAS STATE UNIVERSITY

Manhattan, KS

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

### Traditional Ecological Knowledge (TEK) of Wetlands

KANSAS STATE UNIVERSITY

Manhattan, KS

2021

<b>Bighorn Sheep Capture and Monitoring Techniques</b> KANSAS STATE UNIVERSITY	Manhattan, KS 2021
<b>Wild Sheep Natural History</b> KANSAS STATE UNIVERSITY	Manhattan, KS 2021
<b>Bighorn Sheep Capture and Monitoring Techniques</b> KANSAS STATE UNIVERSITY	Manhattan, KS 2020
<b>Traditional Ecological Knowledge (TEK) of Wetlands</b> KANSAS STATE UNIVERSITY	Manhattan, KS 2019
<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>Bighorn Sheep Monitoring</b> KANSAS STATE UNIVERSITY	Manhattan, KS 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