

## Ty J. Werdel

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### EDUCATION

28 JUNE 2022

#### *Degrees*

- 2022     **Ph.D. Horticulture and Natural Resources**, Department of Horticulture and Natural Resources, Kansas State University, Manhattan, KS  
*Dissertation*: “Landscape effects on carnivore community dynamics in an agro-prairie ecosystem” – Dr. Adam A. Ahlers
- 2017     **M.S. Wildlife Sciences**, Department of Natural Resource Management, South Dakota State University, Brookings, SD  
*Thesis*: “Evaluation of the Deadwood bighorn sheep (*Ovis canadensis*) herd translocation” – Dr. Jonathan A. Jenks
- 2013     **B.S. Rangeland and Wildlife Management**, Department of Applied Sciences, Chadron State College, Chadron, NE  
*Thesis*: “Small mammal abundance and diversity in relation to prairie dog reintroduction sites”

#### *Certifications*

- 2020     **Professional Certification in Data Analysis for Life Sciences (R)**  
HarvardX, Harvard University
- 2016     **Associate Wildlife Biologist®**  
The Wildlife Society
- 2016     **Graduate Certification in Geospatial Technology**  
South Dakota School of Mines and Technology, Rapid City, SD
- 2014-2021   **Esri Academy ArcGIS (9 Certifications)**  
Environmental Systems Research Institute
- 2013     **Project WILD/Project WILD Aquatic**  
[www.projectwild.org](http://www.projectwild.org), Association of Fish and Wildlife Agencies

#### *Professional Development*

- 2020     **GTA Certificate of Achievement in Professional Development**  
Teaching and Learning Center, Kansas State University
- 2020     **Faculty Exchange for Teaching Excellence**  
Rekindling Your Love of Teaching, Kansas State University

## PROFESSIONAL POSITIONS

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- 2022-Present **Vice Chancellor's Postdoctoral Research Fellow**, Department of Rangeland, Wildlife, and Fisheries Management, Texas A&M University, College Station, TX
- 2017-2022 **Graduate Research and Teaching Assistant**, Department of Horticulture and Natural Resources, Kansas State University, Manhattan, KS  
**Teaching Responsibilities**  
*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*
- 2014-2017 **Graduate Research and Teaching Assistant**, Department of Natural Resource Management, South Dakota State University, Brookings, SD  
**Teaching Responsibilities**  
*Introduction to Wildlife and Fisheries, WL 220*
- 2014 **GIS Technician**, North Platte Natural Resources District, Scottsbluff, NE
- 2013 **Undergraduate Researcher**, Sevilleta LTER Research Experience, Socorro, NM
- 1998-2013 **Construction Foreman**, Werdel Steel Construction, Chadron, NE

## PUBLICATIONS

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### *Peer-Reviewed*

- 2022 **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M.S. Peek, and A.A. Ahlers. Scale-specific landscape effects impose range-limiting constraints on the distribution of swift fox. *Landscape Ecology* DOI:10.1007/s10980-022-01466-0.
- 2021 **Werdel, T.J.**, J.A. Jenks, J.T. Kanta, C.P. Lehman, and T.J. Frink. Space use and movement patterns of translocated bighorn sheep. *Mammalian Biology* DOI:10.1007/s42991-021-00107-4.
- 2019 **Werdel, T.J.**, J.A. Jenks, T.E. Besser, J.T. Kanta, C.P. Lehman, and T.J. Frink. Restoration of a bighorn sheep population impeded by *Mycoplasma ovipneumoniae* exposure. *Restoration Ecology* DOI:10.1111/rec.13084 (Cover Article).
- 2018 **Werdel, T.J.**, J.A. Jenks, T.E. Besser, J.T. Kanta, C.P. Lehman, and T.J. Frink. Survival of translocated bighorn sheep in the Deadwood region of the Black Hills, South Dakota. *Northwestern Naturalist* 99:222-231.

### *Manuscripts in Revision/Review*

- In Revision **Werdel, T.J.**, J.A. Jenks, J.T. Kanta, C.P. Lehman, and T.J. Frink. Habitat selection and herbaceous biomass at foraging sites of translocated bighorn sheep. *Rangeland Ecology and Management*.
- In Revision Piper, C.W., **T.J. Werdel**, M.S. Peek, A.M. Ricketts, D.S. Sullins, and A.A. Ahlers. Landscape composition and proximity to water structure American badger distributions in shortgrass prairies. *Journal of Mammalogy*.

### ***Manuscripts in Preparation***

- In Preparation **Werdel, T.J.**, M. Fidino, C.W. Piper, A.M. Ricketts, M.S. Peek, and A.A Ahlers. Landscape composition mediates spatiotemporal interactions among sympatric canids in a prairie ecosystem. *Oikos*.
- In Preparation **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M.S. Peek, D.S. Sullins, and A.A Ahlers. Strategic grassland conservation to improve conservation outcomes for swift foxes in a multi-use landscape. *Biological Conservation*.
- In Preparation **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M.S. Peek, and A.A Ahlers. Landscape-scale effects and prey availability structure carnivore richness in an agro-prairie ecosystem. *Journal of Mammalogy*.

### **HONORS AND AWARDS**

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- 2022 **Agriculture Dean and Director’s Award for Graduate Student Research** – (\$500) Kansas State University
- 2021 **Advancing Agricultural Science Opportunities for Native Americans Scholarship** – (\$1,500) American Indian Science and Engineering Society
- 2021 **Robert Nunemacher Scholarship** – (\$5,000) Kansas State University
- 2020 **Advancing Agricultural Science Opportunities for Native Americans Research Award** – (\$5,000) American Indian Science and Engineering Society
- 2020 **Advancing Agricultural Science Opportunities for Native Americans Scholarship** – (\$5,000) American Indian Science and Engineering Society
- 2020 **Lighting the Pathway to Faculty Careers for Natives in STEM** – (\$2,000) American Indian Science and Engineering Society
- 2020 **College of Agriculture Graduate Student Recognition of Achievement** – Kansas State University
- 2020 **AISES Together Towards Tomorrow T3 Scholarship** – (\$500) American Indian Science and Engineering Society
- 2019 **Gamma Sigma Delta** – The Honor Society of Agriculture, Kansas State University
- 2019 **AISES Travel Grant** – (\$1,000) American Indian Science and Engineering Society
- 2019 **Advancing Agricultural Science Opportunities for Native Americans Scholarship** – (\$5,000) American Indian Science and Engineering Society

- 2019 **Kansas State University Graduate Student Recognition of Achievement** – Kansas State University
- 2019 **College of Agriculture Graduate Student Recognition of Achievement** – Kansas State University
- 2018 **Inclusive Pedagogy Travel Grant** – (\$1,500) The Wildlife Society
- 2018 **Life Membership Fund Scholarship** – (\$5,000) Wild Sheep Foundation
- 2018 **Predoctoral Ford Fellowship Honorable Mention** – Ford Foundation Fellowships Program
- 2017 **Native Student Professional Development Grant** – (\$2,000) Native Peoples Wildlife Management Working Group, The Wildlife Society
- 2017 **Launch Collegiate Business Pitch Competition** – (\$1,500) Kansas State University
- 2016 **Native Student Professional Development Grant** – (\$2,000) Native Peoples Wildlife Management Working Group, The Wildlife Society
- 2016 **Phi Kappa Phi Honor Society** – South Dakota State University
- 2013 **Excellence in Wildlife Management** – Chadron State College
- 2013 **Platinum Eagle Award Finalist** – Chadron State College
- 2005 **Gates Millennium Scholarship** – (\$75,000) Bill & Melinda Gates Foundation
- 2005 **Scholastic Excellence in Engineering** – (\$3,000) University of Wyoming
- 2005 **Scholars Stipend** – (\$2,500) University of Wyoming
- 2005 **Computer Science, Engineering, and Mathematics Scholarship** – (\$2,500) University of Wyoming
- 2005 **Honors Program** – University of Wyoming

## **PROFESSIONAL SERVICE**

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### ***Executive Service in Professional Organizations***

- 2018-Present Program Coordinator – Native Student Professional Development Grant, Native Peoples' Wildlife Management Working Group, The Wildlife Society
- 2018-2021 Secretary/Treasurer – Central Mountains and Plains Section, The Wildlife Society

### ***Working Group Membership***

- 2018-Present Rangeland Wildlife Working Group – The Wildlife Society
- 2015-Present Native Peoples' Wildlife Management Working Group – The Wildlife Society
- 2013-Present Student Development Working Group – The Wildlife Society

### ***Chapter Membership***

- 2018-Present Central Mountains and Plains Section of The Wildlife Society
- 2017-Present Kansas Chapter of The Wildlife Society

- 2014-2017 South Dakota Chapter of The Wildlife Society
- 2013-2014 Nebraska Chapter of The Wildlife Society
- 2012-2013 CSC Wildlife Club, Student Chapter of The Wildlife Society

***Professional Organization Membership***

- 2021-Present Society for Advancement of Chicanos/Hispanics and Native Americans in Science
- 2019-Present Gamma Sigma Delta Honor Society
- 2019-Present American Indian Science and Engineering Society
- 2018-Present Swift Fox Conservation Team
- 2016-Present Phi Kappa Phi Honor Society
- 2015-Present Native American Fish and Wildlife Society
- 2015-2017 Rocky Mountain Bighorn Society
- 2014-Present Wild Sheep Foundation
- 2013-Present American Society of Mammalogists
- 2013-Present The Wildlife Society

***External Journal Reviewer***

Journal of Mammalogy

**RESEARCH COVERAGE IN POPULAR MEDIA**

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- 2018 Life of the Wild: Why scientists study ecosystems and the wildlife within them; Seek Research Magazine (Fall 2018; [www.k-state.edu/seek/fall-2018/life-of-the-wild/#prettyPhoto](http://www.k-state.edu/seek/fall-2018/life-of-the-wild/#prettyPhoto))

**PRESENTATIONS**

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- 2021 **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M. Peek, and A.A. Ahlers. Scale-specific landscape effects impose range-limiting constraints on the distribution of swift foxes. The Wildlife Society 28<sup>th</sup> Annual Conference. Virtual.
- 2021 Piper, C.W, **T.J. Werdel**, A.M. Ricketts, D. Sullins, M. Peek, and A.A. Ahlers. Landscape composition and proximity to water structure American badger distributions in shortgrass prairies. The Wildlife Society 28<sup>th</sup> Annual Conference. Virtual.
- 2021 **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M. Peek, and A.A. Ahlers. Multiscale landscape effects impose range-limiting constraints on the distribution of swift fox. Swift Fox Conservation Team Meeting, Kansas, USA.
- 2021 **Werdel, T.J.**, C.W. Piper, A.M. Ricketts, M. Peek, and A.A. Ahlers. Multiscale landscape effects impose range-limiting constraints on the distribution of swift fox. Midwest Association of Fish and Wildlife Agencies Furbearer Workshop. Michigan, USA.

- 2021 Piper, C.W., **T.J. Werdel**, A.M. Ricketts, M. Peek, and A.A. Ahlers. Landscape composition and proximity to water structure American badger (*Taxidea taxus*) distributions in shortgrass prairies. Midwest Association of Fish and Wildlife Agencies Furbearer Workshop. Michigan, USA.
- 2020 **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. Assessing factors that influence occupancy and colonization of swift fox in western Kansas. Kansas Natural Resources Conference. Manhattan, KS.
- 2019 **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. Assessing factors that shape carnivore diversity in shortgrass prairie ecosystems. American Fisheries Society & The Wildlife Society 2019 Joint Annual Conference. Reno, NV.
- 2019 **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. Carnivore richness and diversity is driven by landscape change in shortgrass prairie ecosystems. 99<sup>th</sup> Annual Meeting of the American Society of Mammalogists. Washington, D.C.
- 2019 **Werdel, T.J.**, A.M. Ricketts, M. Peek, and A.A. Ahlers. Landscape effects on swift fox occupancy in western Kansas. Southwest/Midwest Joint Furbearer Meeting. Enid, OK.
- 2019 **Werdel, T.J.**, A.M. Ricketts, and A.A. Ahlers. Landscape change structures carnivore communities in shortgrass prairie ecosystems. Kansas Natural Resources Conference. Manhattan, KS.
- 2018 **Werdel, T.J.**, A.M. Ricketts, and A.A. Ahlers. Assessing the spatial distribution of swift fox in western Kansas. The Wildlife Society 25<sup>th</sup> Annual Conference. Cleveland, OH.
- 2018 **Werdel, T.J.**, J.A. Jenks. Survival of bighorn sheep in the Deadwood region of the Black Hills. Nebraska/Central Mountains & Plains Section of The Wildlife Society Annual Meeting. Kearney, NE.
- 2016 **Werdel, T.J.**, J.A. Jenks, J. Kanta, and C. Lehman. Evaluation of the Deadwood bighorn sheep herd translocation. The Wildlife Society 23<sup>rd</sup> Annual Conference. Raleigh, NC.
- 2013 **Werdel, T.J.** Small mammal population and diversity in relation to prairie dog reintroduction sites. Sevilleta LTER Research Experience for Undergraduates Summer Symposium. Socorro, NM.

#### **INVITED LECTURES AND PRESENTATIONS**

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- 2021 Texas A&M University, College Station, TX; “Applied Wildlife Management: A Landscape Ecology Approach”
- 2021 Texas A&M University, College Station, TX; “Traditional Ecological Knowledge: A Place-Based Perspective”
- 2021 Kansas Department of Wildlife, Parks and Tourism, Emporia, KS; “Distribution of Swift Fox in Kansas”
- 2021 Kansas State University, Manhattan, KS; “Traditional Ecological Knowledge (TEK) of Wetlands”

- 2021 Kansas State University, Manhattan, KS; “Bighorn Sheep Capture and Monitoring Techniques”
- 2021 Kansas State University, Manhattan, KS; “Wild Sheep Natural History”
- 2020 Kansas State University, Manhattan, KS; “Bighorn Sheep Capture and Monitoring Techniques”
- 2019 Kansas State University, Manhattan, KS; “Traditional Ecological Knowledge (TEK) of Wetlands”
- 2019 Wild Sheep Foundation Sheep Show, Reno, NV; “Keynote Speaker: Youth Wildlife Conservation Experience”
- 2018 The Wildlife Society Annual Conference, Cleveland, OH; “Inclusive Pedagogy Student Panel”
- 2018 Kansas State University, Manhattan, KS; “Bighorn Sheep Monitoring”
- 2018 Marlatt Elementary School, Manhattan, KS; “Marlatt STEM Night”
- 2018 Haskell Indian Nations University, Lawrence, KS; “Initiating a Student Chapter of The Wildlife Society”
- 2016 Red Cloud Indian School, Pine Ridge, SD; “Toyota STEM Speaker”
- 2015 South Dakota Game, Fish, and Parks, Rapid City, SD; “Deadwood Bighorn Sheep Translocation”
- 2015 Kiwanis Club, Lead, SD; “Bighorn Sheep and Community Interaction”
- 2015 Chadron State College, Chadron, NE; “Graduate School Experience and Preparation”
- 2013 Red Cloud Indian School, Pine Ridge, SD; “Project WILD, Children and Wildlife”

#### **VOLUNTEER RESEARCH**

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- 2019 **Muskrat Research** (Capture, Translocation, and Telemetry) – Voyageurs National Park and Kansas State University; Set ~200 muskrat traps, captured >50 muskrats, assisted in surgery to implant VHF transmitters, translocated muskrats to experimental *Typha* sites, and used telemetry to monitor post-release movements in Voyageurs National Park.
- 2017 **Urban Carnivore Research** (Data Collection) – Kansas State University; Baited scent stations and camera traps to assess distribution in urban environments near Manhattan, Kansas.
- 2016 **Bighorn Lamb Capture** (Data Collection) – South Dakota Game, Fish, and Parks; Assisted capturing and processing bighorn sheep lambs in areas near Rapid City, SD to collect health condition data and apply radio collars
- 2016 **Bighorn Capture** (Data Collection) – South Dakota State University; Assisted capturing and processing bighorn sheep in Custer State Park and areas near Rapid

- City, SD to collect health condition data and apply radio collars used in *Mycoplasma ovipneumoniae* pneumonia research
- 2016 **Mule Deer Sampling** (Data Collection) – South Dakota Game, Fish, and Parks; Secured private landowner permissions for helicopter captures of mule deer near Deadwood, SD
- 2015 **Bighorn Capture** (Data Collection and Transport) – Idaho Fish and Game; Assisted capturing and processing bighorn sheep near Lewiston, ID to collect health condition data and apply radio collars. Translocated 2 bighorn sheep to South Dakota State University for evaluation of *Mycoplasma ovipneumoniae* infections
- 2015 **Bighorn Sampling** (Data Collection) – South Dakota Game, Fish, and Parks; Chemically immobilized, handled, and processed bighorn sheep near Hill City, SD to evaluate health condition, apply radio collars, and insert VITs
- 2014 **Bighorn Sampling** (Data Collection) – South Dakota State University; Chemically immobilized, handled, and processed bighorn sheep at South Dakota State University research facility to evaluate health condition
- 2013 **Prairie Dog Trapping** (Data Collection) – United States Fish and Wildlife Service; Trapped, identified, handled, and processed Gunnison’s prairie dogs to evaluate success of reintroduction program on Sevilleta National Wildlife Refuge
- 2013 **Lizard Behavior and Time Management** – Sevilleta Undergraduate Research; Observed lizard behavior and recorded how they managed their time between basking, eating, resting, etc. Research being done to determine effects of drought conditions on New Mexican lizard species
- 2013 **Bighorn Telemetry Tracking** – Nebraska Game and Parks Commission; Used telemetry equipment to locate collared bighorn sheep in Ft. Robinson State Park to evaluate success of reintroduction of the species in Nebraska
- 2013 **Bighorn Capture** (Data Collection) – Nebraska Game and Parks Commission; Assisted capturing and processing bighorn sheep in Ft. Robinson State Park to collect health condition data and apply radio collars
- 2012 **Swift Fox Research** (Data Collection) – Chadron State College; Baited scent stations and camera traps to assess population numbers in northwest Nebraska.
- 2012 **Deer Check Station** (Data Collection) – Nebraska Game and Parks Commission; Assisted checking in hunter-harvested deer during Nebraska rifle season, aged deer, and checked for disease
- 2012 **Mountain Lion Necropsies** – Chadron State College; Evaluated health condition, stomach content, age, etc.

## REFERENCES

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Adam A. Ahlers, PhD, CWB  
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 Kansas State University  
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Jonathan A. Jenks, PhD, CWB  
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