Daniel R. Uden
School of Natural Resources
Department of Agronomy and Horticulture
Center for Resilience in Agricultural Working Landscapes
School of Global Integrative Studies (Courtesy Appointment)
University of Nebraska–Lincoln
302 Hardin Hall South
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EDUCATION
Ph.D.—Natural Resource Sciences. Specialization: Applied Ecology.
University of Nebraska–Lincoln; May 2017.

M.S.—Natural Resource Sciences. Specialization: Wildlife Ecology.
University of Nebraska–Lincoln; August 2012.

B.A.—Major: Geography; Minors: Biology and History.
Concordia University, Seward; May 2010.

PROFESSIONAL APPOINTMENTS
University of Nebraska-Lincoln
- Interim Director – Center for Resilience in Agricultural Working Landscapes. Spring 2026–present.
- Assistant Professor and Resilience Spatial Scientist. Fall 2020–present.
    - School of Natural Resources (60%); Department of Agronomy and Horticulture (40%); Center for Resilience in Agricultural Working Landscapes; School of Global Integrative Studies (Courtesy Appointment)
    - Research (60%); Teaching (40%)

AWARDS
University of Nebraska–Lincoln
- Agricultural Research Division (ARD) 2023 Junior Faculty Excellence in Research Award. Received February 13, 2024 at the IANR All Hands Meeting.
- School of Natural Resources. 2025 Faculty Inspiration Award. Received April 12, 2025 at the School of Natural Resources Spring Banquet.

FELLOWSHIPS
University of Nebraska–Lincoln
- Daugherty Water for Food Global Institute Faculty Fellow. 2021–present.

GRANTS (PENDING)
Precision Rangeland Management: An integrated, data-driven approach for early detection and management of invasive species in the Great Plains. Wang, R. (P.I.), D. Charlson, R. Kellar,

D.R. Uden (co-P.I.), and Y. Shi. University of Nebraska – Nebraska Research Initiative. $99,855. 08/01/2026–07/31/2027.

GRANTS (ACTIVE)
*Graduate student investigator
**Postdoctoral investigator

Hydrologic Ecosystem Service Monitoring and Education in Conservation Agriculture. **Uden, D.R.** (P.I.). Daugherty Water for Food Global Institute Graduate Student Support Award. University of Nebraska. $11,713. 07/01/2025–06/30/2026.
- Uden lab: $11,713 (100%)

Fostering the Next Generation of Inclusive Agricultural and Natural Resources Professionals. Mamo, M. (P.I.), L. Sandall, J. Keshwani, **D.R. Uden** (co-P.I.), and C. Cordova. USDA-NIFA: Agriculture and Food Research Initiative Research and Extension Experiences for Undergraduates (AFRI REEU). $597,589. 01/01/2024–12/31/2027.
- Uden lab: $30,776 (10%)

Advancing Development of Assessments, Practices, and Tools (ADAPT) to Produce Climate Smart Beef in Grazing Systems. Erickson, G. (P.I.), E. Athanassopoulous, M. Drewnoski, J. Gamon, M. Khorchani, M. Stephenson, A. Suyker, **D.R. Uden** (Essential Personnel), et al. $4,997,068. UNL Grand Challenges Catalyst Proposal. 10/01/2024 – 09/30/2029.
- Uden lab, in collaboration with G. Meredith and C.R. Allen: $951,241 (19%)

Collaborative Adaptive Management of Rangelands Subject to Woody Expansion. **Uden, D.R.** (P.I.), C. Allen, M. Stephenson, G. Meredith, J. Volesky, J. *Harvey, R. Benjamin, K. *Martens, J. Parsons, and T. **Michaels. UNL ARD McIntire-Stennis. $248,294. 01/01/2024–12/31/2028.
- Uden lab: $248,294 (100%), in collaboration with co-P.I.'s

Hydrological Outcomes of the Conservation Reserve Program in Water-Stressed High Plains Watersheds. Roy, Tirthankar (P.I.), K. Schoengold, and **D.R. Uden** (co-P.I.). USDA FSA. $1,000,000. 09/01/2023–08/31/2028.
- Uden lab: $270,000 (30%)

Promoting Climate-Smart Agricultural Practices to Reduce Risk and Impacts of Drought, Wildfire and Woody Encroachment on Livestock Production in Great Plains Rangelands. Stephenson, M. (P.I.), C. Dunn, G. Meredith, **D.R. Uden** (co-P.I.), and J. Volesky. USDA NIFA AFRI. $253,295. 05/01/2023–04/30/2028.
- Uden lab: $16,844 (10%)

Identifying and Prioritizing Habitat for Pheasant Conservation and Management in Agriculturally Dominated Landscapes. Little, A. (P.I.), J. Carroll, L. Powell, Y. Qi, D. Twidwell, A. Tyre, and **D.R. Uden** (co-P.I.). Nebraska Game and Parks Commission. $699,940. 01/01/2021–12/31/2025.
- Uden lab: $209,982 (30%)

Response of a Man-Made Forest to the Catastrophic Wildfires of 2022: Recovery of the Sandhills' Halsey Nebraska National Forest. Awada, T. (P.I.), C. Allen, C. Cordova, **D.R. Uden** (co-P.I.), J. Iqbal, L. Ameyaw, M. Khorchani, R. Drijber, S. Das Choudhury, Y. Shi., A. Smith, and J. Erixson. University of Nebraska Agricultural Research Division. McIntire-Stennis Research Project. $375,000. 01/01/2023–09/30/2027.
- Uden lab: $0 (0%)

GRANTS (COMPLETED)
*Graduate student investigator
**Postdoctoral investigator

Assessing Tradeoffs of Rangeland Management Approaches Using Collaborative Adaptive Management. C.R. Allen (P.I.), J. Jenkins, J. Parsons, W. Schacht, M. Stephenson, **D.R. Uden** (co-P.I.), and J. Volesky. USDA North-Central Region Sustainable Agriculture Research and Education Program (NC-SARE). $247,011. 11/01/2021–9/30/2025.
- Uden lab: $31,123 (14%)

Optimizing Prescribed Fire Management to Maximize Forest Diversity and Resilience. Russo, S., (P.I.), T. Bragg, Y. Ge, **D.R. Uden** (co-P.I.), and R. Wood. University of Nebraska – Nebraska Research Initiative. $149,697. 08/01/2023–06/30/2025.
- Uden lab: $24,121 (16%)

University of Nebraska-Lincoln Learned Professional's Exemption for Proposed Work to Evaluate Impact of Structures on Viewshed of Homestead National Historical Park. **Uden, D.R.** (P.I.). Homestead National Historical Park. $9,998 07/11/2023–09/30/2024.
- Uden lab: $9,498 (100%)

Rangeland Data Informatics – State-of-the-Art Monitoring Products for National Conservation Priorities. Twidwell, D. (P.I.), **D.R. Uden** (co-P.I.), D. *Fogarty, S. **Cady, and N. McMillan. UNL ARD Strategic Funding. $25,000. 07/28/2023–12/31/2024.
- Uden lab: $0 (0%)

Remotely Sensed Early Warning of Toxic Algal Blooms in Nebraska Lakes. **Uden, D.R.** (P.I.). Daugherty Water for Food Global Institute Graduate Student Support Award. University of Nebraska. $35,000. 01/01/2022–12/31/2023.
- Uden lab: $35,000 (100%)

Estimating Landscape-Level Contributions in Ecosystem Goods and Services from the Conservation Reserve Program in Nebraska. Wuellner, M.R. (P.I.), J. Jonas-Bratten, G.J. Pec, L.M. Reichart, S. Banerjee, P. **Iranah, A.R. Little, **D.R. Uden** (co-P.I.), Y. Qi, and T. Roy. Nebraska Research Initiative. $149,947. 07/01/2022–06/30/2024.
- Uden lab: $14,500 (10%)

Technical Support to Address Biome Threats in the Great Plains. D. Twidwell (P.I.), D. Fogarty*, and **D.R. Uden** (co-P.I.). USDA-NRCS Pheasants Forever. $536,344. 06/01/2022–09/30/2024.

- Uden lab: $159,294 (33%)

A Rapid Mapping Tool for Quantifying Multi-scale Grassland Management Outcomes. Roberts, C.P. (P.I.), B. DeGregorio, K.M. Weaver, **D.R. Uden** (Collaborator), R. Diener, N. Childers, and M. Asher. U.S. Geological Survey and U.S. Fish and Wildlife Service Science Support Partnership Program. $102,636. January 2022–May 2024.
- Uden lab: $0 (0%)

Adaptive Management of Sandhills Grasslands. Allen, C.R. (P.I.), J. Parsons, W. Schacht, and **D.R. Uden** (co-P.I.). Nebraska Environmental Trust. $546,011. 5/15/2021–5/14/2024.
- Uden lab: $136,502 (25%)

Conservation Outcomes in Great Plains Rangelands. Twidwell, D. (P.I.), C.P, Roberts, and **D.R. Uden** (Co-P.I.). USDA NRCS. $203,001. 08/01/2020–07/31/2021.
- Uden lab: $60,291 (33%)

Improving the Performance of Conservation Investments on Eastern Redcedar Invasions. Twidwell, D. (P.I.), C.P, Roberts, and **D.R. Uden** (co-P.I.). Nebraska Environmental Trust. $238,000. 07/01/2020–06/30/2022.
- Uden lab: $60,291 (33%)

Resilience Informatics for the Convergence of Critical Capacities to Address Regional-Scale Environmental Change. Allen, C.R. (P.I.), B.C. Chaffin, D. Twidwell, S. Banerjee, T. Floyd, **D.R. Uden** (senior personnel), and B.W. Allred. National Science Foundation. Nebraska EPSCoR, Track II. $3,953,265. 08/01/2019–07/31/2024.
- Uden lab: $252,915 (25% of UNL portion)

A Framework for Evaluating the Current and Future Contributions of the Conservation Reserve Program to Ecosystem Goods and Services in the State of Nebraska. Wuellner, M.R. (P.I.), L.M. Reichart, D. Ranglack, P. **Iranah, A.R. Little, **D.R. Uden** (co-P.I.), Y. Qi, and T. Roy. Nebraska Research Initiative. $21,258. 01/01/2021–06/30/2022.

GRANTS (DECLINED)
*Graduate student investigator
**Postdoctoral investigator

Collaborative Research: Research Infrastructure: FEC: Use-Inspired, Nature-Based Grassland Management for Biodiversity, Productivity and Climate Co-Benefits Across the Great Plains. Gamon, J. (P.I.), E. Hunt, B. Wardlow, R. Wang, G. Meredith, S. Calvert, X. Li, N. McMillan, W. Wang, R. Behnke, **D.R. Uden** (senior personnel), M. Hayes, S. Banerjee, and S. Russo. National Science Foundation EPSCoR Track II. $2,001,079. 10/01/2025–09/30/2029.

Early Warnings for Rangeland Regime Change. **Sundstrom, S. (P.I.), L. Li, **D.R. Uden** (co-P.I.), and G. Meredith. University of Nebraska-Lincoln Agricultural Research Division Hatch Multistate Enhanced Program. $149,833. 10/01/2026–9/30/2029.

Climate, Cattle, and Conservation: Insights from Decades of Grasslands Monitoring by Integrating Multiscale Multisource Data. Wang, R. (P.I.), J. Gamon, M. Stephenson, **D.R. Uden** (co-P.I.), and N. McMillan. DSFAS: USDA-NIFA Data Science for Food and Agricultural Systems (DSFAS). $641,819. 08/01/2025–07/31/2028.

PACSP: Optimizing Prescribed Fire Management for Oak Savanna Conservation in the Eastern Great Plains. Russo, S. (P.I.), Tenhumberg, B., N. Chamara, R. Wang, **D.R. Uden** (co-P.I.), and R. Wood. National Science Foundation Partnership to Advance Conservation Science and Practice (PACSP). $651,625. 01/15/2026–01/14/2031.

Advancing Monitoring of Great Plains Rangeland Plant Communities and Management Treatments Using Remote Sensing. *Chan, C. (P.I.), **D.R. Uden** (co-P.I.), and J. Gamon. USDA-NIFA North-Central Region Sustainable Agriculture Research and Education Program (NC-SARE). $20,000. 09/01/2024–12/31/2025.

The Nebraska Sandhills from Space: Quantifying Grassland Vegetation Responses Across Environmental Gradients Using Remote Sensing. Wang, R. (P.I.), C. Allen, J. Gamon, **D.R. Uden** (co-P.I.), B. Wardlow, S. Russo, M. Stephenson, and J. Volesky. NASA Earth Surface Mineral Dust Source Investigation (EMIT). $372,777. 02/01/2024–01/31/2027.

Development and Assessment of Sustainable Hemp for the Bioeconomy. Santra, D. (P.I.), L. Isom, M. Griep, E. Ingram, A. Liska, Y. Demirel, Y. Ge, L. Nogueira-Rodriguez, C.R. Allen, St. Knezevic, B. Maharjan, X. Qiao, M. Maguire, I. Dweikat, C. Walters, **D.R. Uden** (co-P.I.), G. Meredith, J. Keshwani, and J. Groskopf. USDA-NIFA: AFRI-Sustainable Agricultural Systems (SAS). $9,985,336. 03/01/2024–02/28/2029.

UAS-Based Optimization of Prescribed Fire for Sustaining Forest Function and Resilience. Russo, S. (P.I.), Bragg, T., Y. Ge, **D.R. Uden** (co-P.I), and R. Wood. USDA-NIFA-AFRI Sustainable Agriculture Program Sustainable Agriculture Program. $750,000. 04/01/2024–03/31/2028.

Collaborative Research: Planning: CRISES: Center for Socioenvironmental Resilience in the Rural Midwest. Bitterman, P. (P.I.), M. Durr, and **D.R. Uden** (co-P.I.). National Science Foundation Centers for Research and Innovation in Science, the Environment and Society (CRISES). $10,691. 07/15/2023–07/14/2024.

AI Institute: Climate-Smart Agriculture and Forestry (AI–CSAF). Wolf, M. (P.I.), P. Agarwal, C. Allen, J. Baker, T. Brown-Brandl, G. Ericksen, Y. Ge, A. Liska, B. Maharjan, M. Oltrogge, D. Richter, M. Spangler, **D.R. Uden** (co-P.I.), M. Can Vuran, and H. Yu. National Science Foundation – AI Institute for Climate-Smart Agriculture and Forestry (AI-CSAF). $20,000,000. 06/01/2023–05/31/2028.

Weather Ready Farms: Creating Resilient, Healthy, and Equitable Agroecosystems. Allen, C. (P.I.) et al., and **D.R. Uden** (senior personnel). University of Nebraska–Lincoln Grand Challenges. $4,390,051. 07/01/2023–06/30/2028.

Collaborative Research: GCR: Place-Based Convergence to Strengthen Rural Resilience. Balschweid, M. (P.I.), T.E. Oschner, S. Robinson, D. Keshwani, N. Lam, G.S. Matkin, P.R. Weckler, M.J. Woodring, and **D.R. Uden** (co-P.I.). National Science Foundation. Growing Convergence Research. $1,374,886. 10/01/2022–09/30/2027.

Collaborative Adaptive Management for Sustainable Grasslands. Allen, C.R. (P.I.), T. Brown-Brandl, B. Schick, Y. Shi, Y. Qi, E. Dennis, K. McCarthy, S.R.S. Dangal, **D.R. Uden** (co-P.I.), J. Volesky, L.A. Powell, S. Banerjee, T. Haigh, J. MacDonald, R. Mahmood, T. Awada, W. Schacht, M. Forsberg, J. Gamon, B. Wardlow, M. Stephenson, and M. Svoboda. USDA-NIFA: AFRI-Sustainable Agricultural Systems (SAS). $9,999,931. 01/01/2022–12/31/2026.

REU Site: Resilience in Agricultural Working Landscapes. **Uden, D.R.** (P.I.), L.-K. Soh, C.R. Allen, F. Munoz-Arriola, Y. Qi, and R. Stromberg Kettelhake. National Science Foundation Research Experiences for Undergraduates (REU). $359,101. 6/1/2021–8/31/2023.

PRODUCTS (UNDER DEVELOPMENT)
Canopeo Rangeland Biomass Estimator
- Estimates aboveground biomass in Nebraska Sandhills grasslands, based on green pixel estimates from Canopeo, a freely available smart phone app.
- To be developed into an online estimator, hosted by UNL Extension.
- Developed through Hannah Allen's M.S. research, in collaboration with Dr. Mitch Stephenson.

Great Plains woody encroachment transition layers
- Updated GIS layers showing grass-to-tree transitions at multiple scales from 1990–2020.
- Updated maps to be hosted soon on a new rangeland informatics platform.
- In collaboration with Dirac Twidwell's Large-Scale Rangeland Conservation Lab.

Beef Sustainability Monitoring Tool
- Quantifies environmental outcomes of beef production under alternative approaches to rangeland management (different grazing systems).
- Supported by a UNL Grand Challenges Grant.
- To be delivered to cattle producers and rangeland managers.
- In collaboration with multiple UNL faculty and the UNL Beef Innovation Hub.

Hydrologic Outcomes of Conservation Decision Support Tool
- Displays hydrologic outcomes of conservation-focused landuse change scenarios in water-stressed regions of the High Plains Aquifer.
- Spatially prioritizes conservation based on hydrologic (quantity and quality) and economic outcomes.
- To be delivered to the U.S. Department of Agriculture Farm Service Agency.
- In collaboration with the Rainwater Basin Joint Venture, U.S. Geological Survey Central Plains Water Science Team, U.S. Geological Survey EROS, and research labs of Dr. Tirthankar Roy and Dr. Karina Schoengold.

Ring-necked Pheasant Habitat Management Tool
- Displays predictions and scenarios of pheasant abundance and habitat availability across two eastern Nebraska landscapes.
- Spatially prioritizes habitat management alternatives based on pheasant population outcomes.
- To be delivered to the Nebraska Game and Parks Commission.
- In collaboration with Dr. Andrew Little's Applied Wildlife Ecology and Spatial Movement (AWESM) lab.

PRODUCTS (DELIVERED)
i-Tree Pest Predictor Tool
- Predict risks of high-impact non-native insect invasion for North American tree species.
- Co-led development of statistical model for predicting invasive insect impacts.
- Available online: https://pestpredictor.itreetools.org/
- In collaboration with a group of entomologists and tree biologists (Mech et al. 2019; Schulz et al. 2021; Uden et al. 2023; Schulz et al. 2025).

Central Grasslands Roadmap Assessment Map 3.0.
- Identifies intact, at-risk, and converted grasslands from Canada to Mexico.
- I contributed spatial data on woody plant (trees and shrubs) encroachment.
- Available online at: https://www.grasslandsroadmap.org/learn
- In collaboration with Dirac Twidwell's Large-Scale Rangeland Conservation Lab.

Great Plains woody encroachment transition layers
- GIS layers showing grass-to-tree transitions at multiple scales from 1990–2020.
- Available online at https://conservation-maps.wlfw.org/?sg_biome_v=true&ll=38.8633,-110.4298&z=5&tab=1&gp_biome_ext_v=true&woody_v=true
- In collaboration with Dirac Twidwell's Large-Scale Rangeland Conservation Lab.

Nebraska woody transitions maps and ArcGIS layer packages
- Assembly of GIS data layers on grass-to-tree transitions in Nebraska rangelands.
- Maps of statewide intact grassland cores.
- Informs spatial targeting of grassland conservation.
- Delivered to Nebraska Natural Resources Conservation Service (2021 and 2022).
- Delivered to Nebraska Game and Parks Commission (various landscapes, including wildlife management areas, 2019–2022).
- In collaboration with Dirac Twidwell's Large-Scale Rangeland Conservation Lab.

Kansas woody transition maps and ArcGIS layer packages
- Assembly of GIS data layers on grass-to-tree transitions in Kansas rangelands.
- Maps of statewide intact rangeland cores.
- Informs spatial targeting of grassland conservation.
- Delivered to Kansas Natural Resources Conservation Service (2019, 2021, 2022, and 2025).

- o Screened Kansas rangelands (focus on Flint Hills, Smoky Hills, and Red Hills ecoregions) for multi-scale transitions between grass and woody plant dominance.
  - o Mapped intact grassland cores throughout Kanas.
  - o Map and data products supported strategic group discussions.
- In collaboration with Dirac Twidwell's Large-Scale Rangeland Conservation Lab.

Montana NRCS and United States Bureau of Land Management (BLM). November 5, 2019. Delivered via webinar.
- Follow-up to NRCS's "Cheatgrass Challenge" webinar, which addressed problematic vegetation transitions on western U.S. rangelands.
- Screened Montana rangelands for transitions between bare ground/perennial grass/shrub and annual grass dominance at multiple scales from 2000–2018 (focus on priority sage grouse conservation areas).
- Tested for temporal growth cycles in annual grass abundance at multiple six spatial scales.
- Presented to Montana NRCS and U.S. Bureau of Land Management staff by Jeremy Maestas, Dirac Twidwell, and myself.

Idaho, Wyoming, Nevada, and Utah NRCS. September 11, 2019. Delivered via webinar.
- Delivered maps and ArcGIS layer packages of shrub-to-annual grass transitions and intact shrubland cores from 2000–2018.
- Component of NRCS's *Cheatgrass Challenge* webinar, which addressed problematic vegetation transition in western U.S. rangelands.
- Screened Idaho, Wyoming, Nevada, and Utah rangelands for transitions between bare ground/perennial/shrub and annual grass dominance at multiple scales from 2000 – 2018 (focus on priority sage grouse conservation areas).
- Tested for temporal growth cycles in annual grass abundance at multiple six spatial scales.
- Identified intact cores of native shrub habitat in 2000 and 2017.

State of Nebraska Legislature
- LR 387 Interim Study Report. Interim study to examine issues relating to the spread of Eastern Redcedar Trees. August 31, 2018. One hundred-fifth legislature. Second session.
  - Contributed spatial and tabular data on percent tree cover across the State of Nebraska and in selected landscapes from 2000–2017.
  - Available online at: https://nebraskalegislature.gov/pdf/reports/committee/natural/lr387_2018.pdf

The Nature Conservancy (TNC)
- Bend, Oregon. October 2, 2019. Delivered via email.
  - o Follow-up to NRCS's "Cheatgrass Challenge" webinar, which addressed problematic vegetation transitions on western U.S. rangelands.
  - o Screened the Great Basin ecoregion for broad-scale transitions between shrub and annual grass dominance from 2000–2018.
  - o Delivered map products to Matthew Cahill (TNC Sagebrush Sea Program Director for the Western U.S.).

Nebraska Game and Parks Commission (NGPC)
- Verdigris-Bazile Biologically Unique Landscape (BUL). Lincoln, NE. January 15, 2020.
  - Screen BUL for transitions between grass and woody plant dominance at multiple spatial scales from 2000–2018.
  - Map intact grassland cores in BUL in 2000 and 2018.
  - Overlay management data on transition signal and intact grassland core maps.
  - Map products supported strategic discussions with biologists and land managers about spatially targeting woody plant management.
- Southeast District Wildlife Management Areas (WMAs). Lincoln, NE. October 29, 2019.
  - Screened all 81 WMAs in Southeast District for transitions between grass and woody plant dominance at multiple spatial scales from 2000–2018.
  - Identified WMAs in grass *versus* tree spatial regimes in 2000 and 2018.
  - Participated in strategic discussions with WMA managers about spatially targeting woody plant management in and around WMAs.
- Milkweed scenario planning exercise. Webinar. May 23, 2017.
  - Participated in 16-state discussion led by Kristal Stoner (NGPC) on recruiting 1.6 billion new milkweed stems along monarch butterfly migratory corridors for conservation of six hectares of overwintering monarchs in Mexico.
- Pine Ridge scenario planning workshops. Scenario planning exercise hosted by the Nebraska Natural Legacy Project in Chadron, NE (September 17, 2014 and December 3, 2015) and Gering, NE (October 8, 2014).
  - Led a participatory scenario planning exercise with land managers from multiple state and federal agencies and NGOs on the future of the Pine Ridge.
  - Aggregated manager perspectives on future drivers of change into three scenario storylines.
  - Simulated landcover change under each scenario with cellular automata.
  - Presented maps and scenarios to managers for iterative refinement.

Nebraska Cattlemen
- Annual Convention and Trade Show. Kearney, NE. December 5, 2019.
  - Screened range-dominated Nebraska ecoregions for transitions between grass and woody plant dominance at multiple scales from 2000–2018.
  - Mapped intact grassland cores in 2000 and 2018.
  - Map and data products used in presentation to all attendees by Dirac Twidwell.

Rainwater Basin Joint Venture (RWBJV)
- Rainwater Basin Wetland Inundation Decision Support System. 2013.
  - Collaborated with RWBJV staff to develop a predictive model and corresponding ArcGIS tool for predicting springtime wetland ponding (migratory waterbird habitat) in the Rainwater Basin.
  - Employed scenario planning to predicted ponding under down-scaled regional climate change projections.
  - Used to inform spring and autumn flooding of wetlands with groundwater.
  - Details in Uden et al. (2015) paper in *Ecosphere*.

PEER-REVIEWED MANUSCRIPTS (SUBMITTED)
Graduate student author

*Akpejeluh, P. **D.R. Uden**, M. Douglass, B. Wardlow, B. Davies, R.N. Kinyanjui, E. Ndiema, and D. Braun. Multi-scale remote sensing reveals vegetation greenness differences in abandoned pastoral settlements and their surrounding landscapes in northern Kenya. *Rangeland Ecology and Management*. Revising for resubmission.

*Asmus, K.A., **D.R. Uden**, C.G. Kruse, D.H. Ranglack, and J.F. Benson. Stopover ecology as a dynamic, state-dependent behavioral process. *Ecography*. In review.

Cady, S.M., R.B. *Peterson, R. Scholtz, **D.R. Uden**, D.T. Fogarty, R. Grosse, G. Brinkman, A. Bishop, K.A. Fricke, B. O'Connor, B.W. Allred, D.E. Naugle, and D. Twidwell. Early warning of regional woody encroachment patterns as decision support for grassland bird conservation. *Biological Conservation*. In review.

*Nesbitt, H.K., A.L. Metcalf, **D.R. Uden**, M.A. Williamson, B.C. Chaffin, T. M. Floyd, and C.R. Allen. Diagnosing and navigating scale mismatches in a social-ecological system: Cross-scale feedbacks and cross-level interactions enable regime shift management in the Great Plains. *Ecology and Society*. In review.

Roberts, C.P., V. Donovan, S. Cady, B. Edwards, S. Morford, D.E. Naugle, R. Scholtz, D. Twidwell, **D.R. Uden**, and D. Fogarty. Where are we winning and losing in the fight to conserve North American grassland birds? *Conservation Biology*. In review.

Roberts, C.P., L.L. *Berry, B.A. DeGregorio, and **D.R. Uden**. Comparing spatial covariance to common field vegetation metrics. *Rangeland Ecology and Management*. In review.

Stauble, T.R., N. McMillan, **D.R. Uden**, and M.B. Stephenson. Patch mow grazing: Uncovering the feedbacks between defoliation, biomass, and nutritive value in a mowed and grazed landscape. *Agriculture, Ecosystems & Environment*. In review.

*Sutherland-Rowan, E., G.R. Meredith, H.K. Nesbitt, S. Banerjee, S. Hamlin, S. Lohani, A.L. Metcalf, **D.R. Uden**, R. Scholtz, D. Twidwell, B.C. Chaffin, and C.R. Allen. Predictors of adaptation attitudes in Nebraska conservation professionals. *Society and Natural Resources*. Revising for resubmission.

Torabian, S., N. McMillan, **D.R. Uden**, C. Rossi, and H. Gholizadeh. Scale-dependent, long-term changes in landscape heterogeneity across the Great Plains. *Ecology and Evolution*. Revising for resubmission.

PEER-REVIEWED MANUSCRIPTS (PUBLISHED)
Graduate student lead author

Legatzke, H., B.C. Chaffin, T.M. Floyd, S. Banerjee, S. Church, S. Gulab, S. Hamlin, G.R. Meredith, A.L. Metcalf, H.K. Nesbitt, E. Rowan, **D.R. Uden**, and C.R. Allen. 2026. Influences of ecological change and social networks on conservation professionals' and producers' risk assessments of a vegetation transition. *Ecology and Society*. Accepted.

Michaels, T.K., A. Garmestani, L. Gunderson, D.G. Angeler, **D.R. Uden**, G. Meredith, and C.R. Allen. 2026. Transformative capacity of social-ecological systems. *Ecology and Society*. Accepted.

Allen, C.R., A. Garmestani, D.G. Angeler, L.H. Gunderson, C.P. Roberts, S.M. Sundstrom, **D.R. Uden**, and J. Liu. 2025. Spatial regimes provide ample early warning of tipping points. *Advances in Ecological Research* 73(2025):151–167. https://doi.org/10.1016/bs.aecr.2025.08.001

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ORAL RESEARCH PRESENTATIONS (SELECTED RECENT; NON-INVITED)
*Graduate student lead author
**Undergraduate student lead author

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Uden, D.R., et al. 2023. Collaborative adaptive management at Barta Brothers Ranch. University of Nebraska- Lincoln Center for Grassland Studies Seminar Series. Lincoln, NE. October 9.

Uden, D.R. et al. 2023. New life for old data: Sandhills vegetation diversity and distributions at Barta Brothers Ranch. University of Nebraska-Lincoln Soil and Range Symposium. Lincoln, NE. April 14.

Roberts, C.P., C.R. Allen, B.W. Allred, D.G. Angeler, V.M. Donovan, B. Edwards, D.E. Naugle, R. Scholtz, J. Tack, D. Twidwell, and **D.R. Uden**. 2022. What happens when biomes collapse, move, or contract? The Wildlife Society Annual Conference. Spokane, WA. November 6–10.

Uden, D.R., C.R. Allen, R. Benjamin, K. Carranza, H. Greenwell, J. Jenkins, K. Martens, G. Meredith, J. Milby, J. Parsons, W. Schacht, N. Sipe, M. Stephenson, and J. Volesky. 2022. Collaborative adaptive management and cedar control. Nebraska Chapter of the Society for Range Management. O'Neill, NE. October 19.

Uden, D.R., C.R. Allen, R. Benjamin, K. Carranza, H. Greenwell, J. Jenkins, K. Martens, G. Meredith, J. Milby, J. Parsons, W. Schacht, N. Sipe, M. Stephenson, and J. Volesky. 2022. Collaborative adaptive management at Barta Brothers Ranch. Nebraska Grazing Conference. Kearney, NE. August 9.

Lohani, S. B.C. Chaffin, **D.R. Uden**, M.A. Williamson, A.L. Metcalf, S. Vallury, C.R. Allen, and D. Twidwell. 2021. Evaluating predictors of landscape-scale social-ecological regime shift signals in near real-time in Great Plains rangelands. Spring 2021. University of Montana Department of Society and Conservation Seminar. Virtual. March.

Lohani, S. B.C. Chaffin, **D.R. Uden**, M.A. Williamson, A.L. Metcalf, S. Vallury, C.R. Allen, and D. Twidwell. 2021. Evaluating predictors of landscape-scale social-ecological regime shift signals in near real-time on private rangelands in Nebraska. International Association for Society and Natural Resources (IASNR). Virtual. June.

Schulz, A.N., N.P. Havill, C.F. Aoki, M.P. Ayres, K.J.K. Gandhi, D.A. Herms, A.M. Hoover, R.A. Hufbauer, A.M. Liebhold, S. Maco, T.D. Marsico, K.F. Raffa, K.A. Thomas, P.C. Tobin, **D.R. Uden**, and A.M. Mech. November 2021. i-Tree Pest Predictor: A new, forthcoming tool to forecast impact of non-native insects on North American tree species. 69th Annual Meeting of the Entomological Society of America. Denver, CO. Contributed Presentation.

Schulz, A.N., R.A. Hufbauer, C.F. Aoki, M.P. Ayres, K.J.K. Gandhi, N.P. Havill, D.A. Herms, A. Hoover, A.M. Liebhold, S. Maco, T.D. Marsico, K.F. Raffa, K.A. Thomas, P.C. Tobin, **D.R. Uden**, and A.M. Mech. May 2021. Synthesis and utilization of big data for forecasting the impacts of non-native forest insects in North America. North American Forest Insect Work Conference. Virtual Conference. Contributed Presentation.

Schulz, A.N., A.M. Mech, C.F. Aoki, M.P. Ayres, K.J.K. Gandhi, N.P. Havill, D.A. Herms, A.M. Liebhold, S. Maco, T.D. Marsico, K.F. Raffa, K.A. Thomas, P.C. Tobin, **D.R. Uden**, and R.A. Hufbauer. April 2021. Forecasting impact of non-native, phytophagous insects relies on different factors based on host tree specialization. 2021 International Association for Landscape Ecology – North America Annual Meeting. Virtual Conference. Contributed Presentation.

POSTER RESEARCH PRESENTATIONS (SELECTED RECENT; NON-INVITED)
Graduate student lead author
**Undergraduate student lead author*

*Allen, H., **D.R. Uden**, N. McMillan, and M. Stephenson. 2025. Fractional Green Canopy Cover and Biomass Correlation in Rangeland Systems: Insights from Canopeo. Society for Range Management Annual Meeting. Spokane, WA. February 9-13.

*Berkowitz, N., B. Wardlow, **D.R. Uden**, A. Basche, and T. Franz. 2025. Contextualizing Remotely Sensed Crop Yield for Precision Conservation Applications. American Geophysical Annual Meeting. New Orleans, LA. December 15–19.

*Chan, C., J.A. Gamon, **D.R. Uden**, and R. Wang. 2025. Interactions Between Spectral Reflectance, Biodiversity, and Landscape Characteristics in the Great Plains Sandhills. Wild Great Plains Conference. Lincoln, NE. April 8.

*Deppert, Q., F. Munoz-Arriola, **D.R. Uden**, and M. Svoboda. 2025. Leveraging Circuitscape, QuickDRI, annual NLCD, and elevation to map potential fire behavior impact on vulnerable communities. Water for Food Global Conference. Lincoln, NE. April 28–May 2.

*Khadka, R., D. Bhattarai, L.B.S. Leal, K. Schoengold, T. Mieno, **D.R. Uden**, and T. Roy. 2025. Conservation Reserve Program and Hydrology in the Northern High Plains: An Integrated Model of Economic, Land-Use, and Hydrological Dynamics. Nebraska Water Center Conference. Omaha, NE. September 18 – 19.
  * Judged best student poster.

*Leal, L.B.S., T. Roy, **D.R. Uden**, K. Schoengold, T. Mieno, D. Bhattaria, R. Khadka. 2025. Impacts of Agricultural Conservation Practices on Hydrology Based Modeling of Northern High Plains Watersheds. American Geophysical Annual Meeting. New Orleans, LA. December 15–19.

Miller, A. and **D.R. Uden. 2025. Vegetation and grassland bird communities in small-scale grazing systems. University of Nebraska-Lincoln Research Experiences for Undergraduates Summer Research Symposium. August 6.

*Khadka, R., D.R. Bhattarai, L.B.S. Leal, K. Schoengold, T. Mieno, **D.R. Uden**, and T. Roy. 2025. Grasslands in the Conservation Reserve Program – A Review of Economic, Hydrological, and Land Use Interactions. America's Grasslands Conference. Kearney, NE. June 24–26.

*Allen, H., **D.R. Uden**, N. McMillan, and M. Stephenson. 2025. Fractional Green Canopy Cover and Biomass Correlation in Rangeland Systems: Insights from Canopeo. Society for Range Management Annual Meeting. Spokane, WA. February 9–13.

*Harvey, J., M. Stephenson, S. Clark, and **D.R. Uden**. 2025. Spurge in the Sandhills: Efficacy of broadleaf herbicides on rangelands and potential for native plant injury. Society for Range Management Annual Meeting. Spokane, WA. February 9–13.

*Baldissara, M., **D.R. Uden**, A. Barg, and A.R. Little. 2024. Remotely sensed grassland disturbance detection for ring-necked pheasant habitat management. The Wildlife Society Annual Meeting. Baltimore, MD. October 19–23.

*Chan, C., J. Gamon, **D.R. Uden**, and R. Wang. 2024. Interactions between spectral reflectance, biodiversity, and landscape characteristics in the Nebraska Sandhills. American Geophysical Union Annual Meeting. Washington, D.C. December 9–13.

Stephenson, M., **D.R. Uden**, G. Meredith, K. Martens, C. Allen, J. Volesky, J. Parsons, R. Benjamin, H. Smith, and J. Harvey. 2024. Implementing collaborative adaptive management research at the UNL Barta Brothers Ranch. Society for Range Management, Sparks, NV. January 28 – February 1.

Allen, H. and **D.R. Uden. 2023. Cattle upland grazing preferences in a patch-burn grazing system. West Michigan Regional Undergraduate Science Research Conference. November 4.

*Baldissara, M., A. Barg, **D.R. Uden**, and A. Little. 2023. The scale of pheasant habitat research in the North American Great Plains. International Galliformes/World Pheasant Association Conference. October 9 – 13. Taman Safari, Prigen, East Java, Indonesia. Poster.

Allen, H. and **D.R. Uden. 2023. Cattle upland grazing preferences in a patch-burn grazing system. University of Nebraska-Lincoln Research Experiences for Undergraduates Summer Research Symposium. July 28.

*Kipenda, M., **D.R. Uden**, E. VanWormer, J. Corman, and B. Wardlow. 2023. Comparison of remotely sensed datasets and metrics for the detection of harmful algal blooms in Nebraska, U.S.A. lakes. University of Nebraska Daugherty for Food Global Institute Student Research Symposium.

*Akpejeluh, P. and **D.R. Uden**. 2023. Spatiotemporal response of normalized difference vegetation to precipitation in pastoral lands of East Turkana, Kenya. University of Nebraska Student Research Fair.

Schulz, A.N., R.A. Hufbauer, C.F. Aoki, M.P. Ayres, K.J.K. Gandhi, N.P. Havill, D.A. Herms, A.M. Hoover, A.M. Liebhold, S. Maco, T.D. Marsico, K.F. Raffa, K.A. Thomas, P.C. Tobin, **D.R. Uden**, and A.M. Mech. February 2023. i-Tree Pest Predictor: A new tool to predict the next high impact insect invaders in North American forests. Missouri Natural Resources Conference. Osage Beach, MO. Poster.

*Bauloye, D.S., **D.R. Uden**, and D. Twidwell. 2022. Screening: Quantifying the future of critical transitions in the Great Plains through early warning signals. Great Plains Fire Summit. North Platte, NE. August 23–25.

Schulz, A.N., R.A. Hufbauer, C.F. Aoki, M.P. Ayres, K.J.K. Gandhi, N.P. Havill, D.A. Herms, A.M. Hoover, A.M. Liebhold, S. Maco, T.D. Marsico, K.F. Raffa, K.A. Thomas, P.C. Tobin,

D.R. Uden, and A.M. Mech. November 2021. i-TPP: A New i-Tree Tool to Predict Impact of Non-Native Insects on North American Trees. Society of American Foresters 2021 National Convention. Virtual Conference. Poster.

Thomas, K.A., A.N. Schulz, A.M. Mech, C.F. Aoki, M.P. Ayres, K.J.K. Gandhi, N.P. Havill, D.A. Herms, A.M. Liebhold, S. Maco, T.D. Marsico, K.F. Raffa, P.C. Tobin, **D.R. Uden**, and R.A. Hufbauer. April 2021. The impact of non-native insects on forest trees relies on different factors based on host tree specialization. Entomological Society of America Pacific Branch Meeting. Virtual Conference. Poster.

TEACHING
Research Experiences in Grasslands (GRAS/NRES/PLAS 398R).
- Undergraduate-level course (1–3 credits)
- Co-supervised Ph.D. student in course development
- Cross-departmental opportunity for a formal grassland-focused research experience
- Approved in Fall 2022; Piloted in Fall 2024
- Co-developed and co-taught with Cheryl Dunn
  - Uden responsibility: 50%
- Enrollment
  - Fall 2024: 4
  - Fall 2025: 2

Ecosystem Monitoring and Assessment (NRES/PLAS/RNGE 444; AGRO/NRES 844)
- Undergraduate- and graduate-level course (3 credits)
- Developed and delivered content on digital monitoring tools/techniques
- Mentored student TA (2023–2024)
- Co-taught with Nic McMillan
  - Uden responsibility: 50%
- Enrollment
  - Fall 2023: 10
  - Fall 2024: 17
  - Fall 2025: 17

Great Plains Ecosystems (NRES/PLAS/RNGE 440; AGRO/NRES 840/840-700)
- Undergraduate- and graduate-level course (3 credits)
- Offered asynchronous online section to accommodate remote graduate students.
- Mentored student TA (2021–2024)
- Enrollment
  - Spring 2021: 34
  - Spring 2022: 44
  - Spring 2023: 18
  - Spring 2024: 31
  - Spring 2025: 17

Landscape Ecology (NRES 810/HORT 812)
- Graduate-level course (3 credits)
- Facilitated class research projects
- Co-taught with Andy Little (2021–2023)
    - Uden responsibility: 100%
- Enrollment
    - Fall 2021: 12
    - Fall 2022: 10
    - Fall 2023: 10
    - Fall 2024: 10
    - Fall 2025: 14

Ecological Applications of Landscape Connectivity (NRES 896)
- Graduate-level independent study course (3 credits)
- Serviced two graduate student researching landscape connectivity
- Research project-based course that contributes to student thesis
- Co-taught with John Benson (2023)
    - Uden responsibility: 100%
- Enrollment
    - Spring 2022: 1
    - Fall 2023: 1

Resilience Thinking in Landscape Systems (AGRO 496/ENVR 498/NRES 498)
- January three-week (Winterim) session
- Undergraduate-level special topics course (2 credits)
- Promotes systems thinking and resilience thinking
- Enrollment
    - Spring 2021: 2

GUEST LECTURES
- Systems Thinking in Agricultural Landscapes. One Health and Environment. Rwanda Institute for Conservation Agriculture (RICA).
    - Fall 2024. Two lectures.
    - Fall 2025. Two lectures.
- Systems Thinking through Food, Energy, Water, and Societal Systems. UNL. Spring 2024–2025. One lecture per year.
- Visiting International Agricultural Students (Kobe, Japan). Fall 2022–2024. One lecture per year.
- Foundations of Ecological Resilience. UNL. Fall 2022. Two lectures.
- Range Short Course. UNL. Summer 2022
- Livestock Management on Range and Pasture. UNL. Fall 2021.
- Complex Biosystems Seminar. UNL. Fall 2020.
- Great Plains Ecosystems. UNL. Spring 2020.
- Ecosystem Monitoring and Assessment. UNL. Fall 2018–2019.

- Intro to Geographic Information Science/Systems. UNL and Concordia University, NE. 2019.
- Synergies in Urban Sustainability. UNL. 2017.
- Environmental Planning and Policy. UNL. 2017.
- Spatial Ecology. UNL. 2017.
- Physical Geography and Geology. Concordia University, NE. 2012.

MENTORING
Graduated

University of Nebraska–Lincoln
- M.S. Advisees. Option A (thesis)
    - Hannah Allen. Department of Agronomy and Horticulture. Summer 2024–present. Co-advisor (with Mitch Stephenson).
    - *Mercy Kipenda. School of Natural Resources. Spring 2022–Summer 2024. Advisor. https://digitalcommons.unl.edu/natresdiss/384/
    - *Paul Akpejeluh. School of Natural Resources. Spring 2021–Fall 2023. Advisor. https://digitalcommons.unl.edu/natresdiss/372/
    - *Daniel Bauloye. School of Natural Resources. Fall 2020–Spring 2023. Advisor. https://digitalcommons.unl.edu/natresdiss/358/
- Ph.D. Advisees
    - Kyle Martens. School of Natural Resources. Spring 2025–present. Advisor.
    - Bijay Bagale. School of Natural Resources. Spring 2025–present. Co-advisor (with Dr. Ayse Kilic).
    - Jacob Harvey. Department of Agronomy and Horticulture. Fall 2024–present. Co-advisor (with Dr. Mitch Stephenson).
    - Dilli Ram Bhattarai. School of Natural Resources. Fall 2024–present. Advisor.
    - Samuel Nshutiyayesu. Department of Agronomy and Horticulture. Fall 2024–present. Advisor.
    - *Megan Baldissara. School of Natural Resources. Summer 2022–Fall 2025. Co-advisor (with Dr. Andy Little). https://digitalcommons.unl.edu/dissunl/396/
    - Noah Berkowitz. School of Natural Resources. Summer 2022–present. Co-advisor (with Dr. Brian Wardlow).
    - Catherine Chan. School of Natural Resources. Summer 2023-present. Co-advisor (with Dr. John Gamon).
- M.S. Online Advisees. Option B (non-thesis).
    - *Julia Kehoe. Department of Agronomy and Horticulture. Summer 2022–Spring 2024.
    - *Drew Ratkovec. Department of Agronomy and Horticulture. Spring 2022–Spring 2023.
- Research and Extension Experiences for Undergraduates Advisees
    - *Annalise Miller. Department of Agronomy and Horticulture. Applied Plant Systems. Summer 2025.
    - *Hannah Allen. Department of Agronomy and Horticulture. Applied Plant Systems. Summer 2023.
- Postdoctoral Research Associates

- o Theo Michaels. School of Natural Resources. Center for Resilience in Agricultural Working Landscapes. Spring 2023–Spring 2025.
  - o Mazbahul Ahamad. Department of Agronomy and Horticulture. Summer 2021–Fall 2021.
- Temporary worker supervisor
  - o Charity Grummert. Summer 2025.
  - o Benjamin Lyons. Summer 2025.
  - o Corynn Kelly. Summer 2024–Fall 2025.
  - o Nicholas Ferrauolo. Fall 2023–Spring 2024. Spring 2026–present.
  - o Ashley Jonas. Spring 2022.
  - o Mazbahul Ahamad. Spring 2022.

Mentee Awards and Fellowships
- Catherine Chan. Ph.D. Co-advisee.
  - o University of Nebraska-Lincoln Dean's Fellowship. 2024. $5,000.
  - o University of Nebraska-Lincoln Agricultural Research Division Life Sciences Fellowship. 2024. $5,000.
- Rita Khadka and Layda Belia Spor Leal. Member of Ph.D. Supervisory Committees.
  - o Nebraska Water Center Best Student Poster Award. 2025.

STUDENT COMMITTEE SERVICE
*Graduated

University of Nebraska–Lincoln
- Undergraduate
  - o Integrated Sciences Major Committee
    - *Reegan Salverson. Summer 2021–Spring 2022.
- Graduate
  - o Master of Science (M.S.) Committee. Option A (thesis).
    - Jade Wawers. School of Natural Resources. Fall 2024–present.
    - Rhys Medcalfe. School of Natural Resources. Fall 2024–present.
    - Shannon Smith. School of Natural Resources. Fall 2024–present.
    - *Trace Stauble. Department of Agronomy and Horticulture. Spring 2024–Fall 2025. https://digitalcommons.unl.edu/agronhortdiss/283/
    - *David Sandahl. School of Natural Resources. Fall 2023–Fall 2025. https://digitalcommons.unl.edu/natresdiss/408/
    - Nikita Machhi. Department of Civil and Environmental Engineering. Spring 2024–present.
    - *Kate Asmus. School of Natural Resources. Spring 2023–Fall 2024. https://digitalcommons.unl.edu/natresdiss/393/
    - *Braxton Newkirk. School of Natural Resources. Spring 2023–Fall 2024. https://digitalcommons.unl.edu/natresdiss/391/
    - *Christian Nielsen. School of Natural Resources. Spring 2022–Summer 2024. https://digitalcommons.unl.edu/natresdiss/381/
    - *Jackson Ebbers. Department of Agronomy and Horticulture. Spring 2022–Spring 2024. https://digitalcommons.unl.edu/agronhortdiss/259/

- *Connor Hart. School of Natural Resources. Fall 2021–Fall 2023. https://digitalcommons.unl.edu/natresdiss/366/
- *Katie Piecora. School of Natural Resources. Fall 2023. https://digitalcommons.unl.edu/natresdiss/363/
- *Jacob Wagner. School of Natural Resources. Fall 2021–Summer 2023. https://digitalcommons.unl.edu/natresdiss/360/
- *Kleidy Camela. School of Natural Resources. Summer 2021–Spring 2023. https://digitalcommons.unl.edu/natresdiss/334/
- *Daniel Morales. School of Natural Resources. Fall 2019–Fall 2023. https://digitalcommons.unl.edu/natresdiss/369/
- *Kate Bird. School of Natural Resources. Spring 2021–Fall 2022. https://digitalcommons.unl.edu/natresdiss/352/
- *Travis Millikan. Department of Agronomy and Horticulture. Summer 2021–Spring 2022. https://digitalcommons.unl.edu/agronhortdiss/233/
- *Alison Ludwig. Department of Agronomy and Horticulture. Fall 2019–Fall 2021. https://digitalcommons.unl.edu/agronhortdiss/225/

o Master of Science (M.S.) Committee. Option B (non-thesis).
  - *Tyler Rice. Department of Agronomy and Horticulture. Summer 2024.
  - *Dylan Kent. Department of Agronomy and Horticulture. Spring 2022–Fall 2025.

o Master of Applied Science (M.A.S.) Committee. Non-thesis.
  - *Nate Martin. School of Natural Resources. Spring 2025.
  - *Emma Bulanek. School of Natural Resources. Spring 2023–Spring 2025.
  - *Sheridan Swotek. Department of Animal Science. Summer 2024.
  - *Seth Peterson. School of Natural Resources. Fall 2020.

o Doctor of Philosophy (Ph.D.) Committee
  - Rita Khadka. Department of Agricultural Economics. Fall 2025–present.
  - Rachel Rusten. School of Natural Resources. Spring 2025–present.
  - Deepika Garagu. School of Natural Resources. Fall 2024–present.
  - *Hugh Ellerman. School of Natural Resources. Fall 2024–Spring 2025. https://digitalcommons.unl.edu/dissunl/303/
  - Pattekar Soham. School of Natural Resources. Spring 2024–present.
  - Uchechukwu Ogbenna. School of Natural Resources. Summer 2023 – present.
  - Kyle Martens. School of Natural Resources. Spring 2023–Spring 2025.
  - Lillian Hoffart. School of Biological Sciences. Spring 2023–present.
  - *Caleb Wehrbein. Department of Agronomy and Horticulture. Fall 2022–Spring 2025. https://digitalcommons.unl.edu/dissunl/274/
  - Hunter Ellsworth. School of Natural Resources. Fall 2022–present.
  - Allison Barg. School of Natural Resources. Fall 2021–present.
  - *Heydi Calderon Ambelis Han. Department of Biological Systems Engineering. Fall 2021–Fall 2025. https://digitalcommons.unl.edu/dissunl/432/

University of Montana
- Ph.D. Committee

- o *Holly Nesbitt. W.A. Franke College of Forestry and Conservation. Fall 2022. https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=13128&context=etd

UNIVERSITY SERVICE

Institute of Agriculture and Natural Resources (IANR). University of Nebraska-Lincoln.
- Digital Agriculture Hub Task Force member. Summer 2025–present. Assisted with:
  - o Drafted a white paper on IANR digital agriculture capabilities.
  - o Deployment of an IANR Digital Agriculture Survey
  - o Facilitation of Digital Agriculture Networking and Awareness Series

College of Agricultural Sciences and Natural Resources. University of Nebraska-Lincoln.
- CASNR Curriculum Committee member. Grassland Systems Major representative. Fall 2023–present.
  - o Helped coordinate, compile and submit Grassland Systems curriculum updates.
    - Grassland Systems Core. Fall 2024.
    - Grazing Livestock Systems Option. Fall 2024.
    - Grassland Ecology and Management Option. Fall 2024.
    - Ranch Management Minor (formerly Grazing Livestock Systems). Fall 2024.
    - Range Management Minor (formerly Grassland Ecology and Management). Fall 2023.
- CASNR Attributes Update Committee. Spring 2024–Fall 2024.
  - o Committee composed of CASNR Curriculum and Faculty Advisory Council subcommittees.
  - o Solicited and aggregated feedback from campus and stakeholder groups to update CASNR attributes.
- CASNR Forward Focus Committee. Summer 2024–present.

School of Natural Resources. University of Nebraska–Lincoln.
- Environmental Science Curriculum Committee. Fall 2024–present.
- Faculty Advisory Committee. Member. Fall 2023–Spring 2025.
- Facilities and Safety Committee. Member. Fall 2023–present.
- Applied Climate and Spatial Sciences Program Area.
  - o Chair. Fall 2024–Summer 2025.
  - o Vice-chair. Fall 2023–Summer 2024.
- Position search committees
  - o Assistant Geoscientist. Search committee member. Summer 2024.
  - o Applied Climate Scientist (State Climatologist). Search committee member. Fall 2023–Spring 2024.
  - o Quantitative Ecologist. Nebraska Cooperative Fish and Wildlife Research Unit. Search committee member. Fall 2022–Spring 2024.
- GIS M.S. degree specialization contact. 2023–present.
- Spatial Science Curriculum Group. 2021–present.
- Committee for Fostering Belongingness. Committee member. 2018–2021.

Department of Agronomy and Horticulture. University of Nebraska–Lincoln.

- APR writing team. Research section. Summer 2023–Spring 2024.
    - Co-chaired group with Patricio Grassini.
    - Synthesized information and feedback on building research capacity.
    - Facilitated multiple rounds of faculty input and feedback.
    - Co-authored Research section of 2023 Academic Program Review.
- Agronomy and Horticulture Seminar Series Committee. Summer 2021–Spring 2023.
    - Served as committee co-chair with Stevan Knezevic (Fall 2022–Spring 2023).
    - Helped coordinate series schedule.
    - Hosted visiting speakers.
- Position search committees
    - Grazing Lands Ecologist. Committee member. 2022.
    - Eastern Redcedar Statewide Coordinator. Committee member. Spring 2021.

Center for Grassland Studies. University of Nebraska–Lincoln.

- Grassland Systems Faculty Curriculum Committee. 2021–present.
- Position search committees
    - Grazing Lands Ecologist and Center for Grassland Studies Director. Committee member. Fall 2021–Spring 2022.

Nebraska Beef Innovation Hub

- Faculty Advisory Committee member. 2021–Fall 2024.

PROFESSIONAL SERVICE

Rainwater Basin Joint Venture Conservation Planning Workgroup. 2025–present.

- Provide scientific expertise and feedback on research and conservation activities.

Conference/Symposia Workshop Facilitation

- Iranah, P., M.R. Wuellner, and **D.R. Uden**. Systems thinking for conservation practitioners—A case-based introductory workshop on integrating systems approaches to wicked problems in conservation. 2022 The Wildlife Society Annual Meeting. Spokane, WA. November 8.
- Iranah, P., M.R. Wuellner, and **D.R. Uden**. Systems thinking for conservation practitioners—A case-based introductory workshop on integrating systems approaches to wicked problems in conservation. 2022 Platte River Basin Conference and Playa Research Symposium. Kearney, NE. October 24.
- Iranah, P., M.R. Wuellner, and **D.R. Uden**. Systems thinking for conservation practitioners—A case-based introductory workshop on integrating systems approaches to wicked problems in conservation. 2022 North American Congress for Conservation Biology. Reno, NV. July 17.

Peer-reviewed Manuscript Reviewer

- *Landscape Ecology*. 2026. One manuscript.
- *Ecological Indicators*. 2025. One manuscript.
- *Ecology Letters*. 2025. One manuscript.
- *Ecosphere.* 2025. One manuscript.

- *Landscape Ecology*. 2025. One manuscript.
- *Rangeland Ecology and Management*. 2025. One manuscript.
- *Earth Systems and Environment*. 2024. One manuscript.
- *Rangeland Ecology and Management.* 2024. One manuscript.
- *Canadian Water Resources Journal*. 2023. One manuscript.
- *Geocarto International*. 2023. One manuscript.
- *Ecosphere*. 2023. One manuscript.
- *Global Change Biology*. 2023. One manuscript.
- *PLOS ONE*. 2023. One manuscript.
- *Agronomy Journal*. 2022. One manuscript.
- *Climatic Change*. 2022. One manuscript.
- *Ecology and Society*. 2022. One manuscript.
- *Biological Invasions.* 2021. One manuscript.
- *Earth Interactions*. 2021. One manuscript.
- *Ecology and Society.* 2021. Three manuscripts.
- *Land*. 2021. One manuscript.
- *Arabian Journal of Geosciences*. 2020. One manuscript.
- *Conservation Biology*. 2020. One manuscript.
- *Ecological Indicators*. 2020. One manuscript.
- *Ecology and Society.* 2020. One manuscript.
- *Environment Systems and Decisions.* 2020. One manuscript.
- *Oecologia Australis*. 2020. One manuscript.
- *Ecological Indicators*. 2019. One manuscript.
- *Journal of Tropical Ecology*. 2019. One manuscript.
- *Landscape Ecology*. 2019. One manuscript.
- *Plant Ecology*. 2019. One manuscript.
- *Sustainability*. 2019. One manuscript.
- *Tropical Conservation Science*. 2019. One manuscript.
- *African Journal of Ecology*. 2018. One manuscript.
- *Ecological Informatics*. 2018. One manuscript.
- *Ecology Letters*. 2018. One manuscript.
- *Ecosphere*. 2018. One manuscript.
- *International Journal of Disaster Risk Reduction*. 2018. One manuscript.
- *Journal of Field Ornithology*. 2018. One manuscript.
- *Landscape and Urban Planning*. 2018. One manuscript.
- *Landscape Ecology*. 2018. One manuscript.
- *Journal of the American Water Resources Association.* 2018. One manuscript.
- *Sustainability*. 2018. One manuscript.
- *Journal of Environmental Informatics*. 2017. One manuscript.
- *Copeia*. 2017. One manuscript.
- *Diversity and Distributions*. 2017. One manuscript.
- *Ecological Indicators*. 2017. One manuscript.
- *Environmental Conservation*. 2017. One manuscript.
- *Frontiers in Ecology and the Environment*. 2017. One manuscript.

- *Land*. 2017. One manuscript.
- *Landscape and Urban Planning*. 2017. One manuscript.
- *PLOS ONE*. 2016. One manuscript.
- *Quail VIII: Proceedings of the Eighth National Quail Symposium*. 2016. One manuscript.
- *African Journal of Environmental Science and Technology*. 2015. One manuscript.
- *Biological Invasions*. 2015. Two manuscripts.
- *Ecological Indicators*. 2015. Two manuscripts.
- *Ecology and Society*. 2015. One manuscript.
- *Conservation Biology*. 2011. One manuscript.

Professional Development
- University of Nebraska–Lincoln
  - College of Agricultural Sciences and Natural Resources
    - Elevate (and Showcase) Your Teaching Impact. March 7, 2025.
    - How Teaching Works: Engaging the Work of Learning. April 27, 2023.
  - Holland Computing Center
    - Carpentry Software Workshop. January 11–12, 2023.
  - Institute of Agriculture and Natural Resources.
    - Supervisor Training. May 27, 2021
  - Office of the Executive Vice Chancellor
    - New Faculty Development Program. Fall 2020–Spring 2021
  - Center for Transformative Teaching.
    - Designing Your Course: Showcasing the CAS Flexible Course Models. July 27, 2020
    - Building a Better Container: Accessibility, Access, and Universal Design. July 16, 2020.
    - Summer Institute for Online Teaching. April–May 2020.
    - Transforming your research into teaching. June–July 2019.

OUTREACH AND ENGAGEMENT
University of Nebraska-Lincoln
- College of Agricultural Sciences and Natural Resources (CASNR)
  - Resilience Jenga Facilitation.
    - September 18, 2025. Lincoln Northeast High School.
      - Led ~50 Lincoln Northeast Sophomores in Resilience Jenga learning activity.
    - December 15, 2024. UNL East Campus Union.
      - Led ~80 Lincoln Northeast sophomores in a Resilience Jenga learning activity that I adapted from undergraduate to high school level.
      - In support of CASNR's FEWS[2] Initiative.
- Cultivate ACCESS: Climate Resilience Professional Development Workshop. June 6, 2024. Nine Mile Prairie.
  - Led a cohort of Nebraska high school agricultural educators on a tallgrass prairie tour and discussion of ecological resilience concepts.

- o Funded by a USDA grant.
- Nebraska College Preparatory Academy
  - o Resilience Jenga Facilitation. June 5, 2025. Dinsdale Learning Commons.
    - ▪ Led four one-hour Resilience Jenga learning activity sessions with a total of ~120 students from Omaha North, Omaha South, Winnebago, and Grand Island Senior High Schools.
- Upward Bound
  - o Resilience Jenga Facilitation. June 24, 2025. Howard L. Hanks Hall.
    - ▪ Led five Lincoln Nebraska High School students in Resilience Jenga learning activity.

PROFESSIONAL MEMBERSHIPS
International Association for Landscape Ecology – North American Chapter. Member. Fall 2023–present.