

## **Daniel R. Uden**

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### **EDUCATION**

Ph.D.—Natural Resource Sciences. Major: Applied Ecology.  
University of Nebraska–Lincoln; May 2017.

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

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

### **EMPLOYMENT**

- Assistant Professor. University of Nebraska–Lincoln. School of Natural Resources; Department of Agronomy and Horticulture; Center for Resilience in Agricultural Working Landscapes. 2020–present.
- Post-doctoral Research Associate. University of Nebraska–Lincoln. School of Natural Resources; Department of Agronomy and Horticulture. 2017–2020.
- Graduate Research Assistant (M.S. and Ph.D.). University of Nebraska–Lincoln. Nebraska Cooperative Fish and Wildlife Research Unit; School of Natural Resources. 2010–2017.

### **FELLOWSHIPS**

University of Nebraska–Lincoln

- Daugherty Water for Food Global Institute Faculty Fellow. 2021–present.

### **GRANTS PENDING**

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.

### **GRANTS AWARDED**

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.

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 (second year renewal). University of Nebraska. \$17,500. 01/01/2023–12/31/2023.

- Advise M.S. student.
- Pilot research on remote early detection of harmful algal blooms.
- Facilitate interdisciplinary team conversation and collaboration.

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.

- Quantify a diversity of ecosystem services in working agricultural landscapes.
- Map spatial tradeoffs and synergies in ecosystem services.
- Model changes in ecosystem services under scenarios of landuse/landcover change.

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.

- Lead rapid spatial analysis and assessment of Great Plains conservation delivery.
- Analyze NRCS and partner data on woody encroachment treatment and prevention.
- Contribute to identification of grassland conservation success demonstration sites.

A rapid mapping tool for quantifying multi-scale grassland management outcomes. Roberts, C.P. (P.I.), B. DeGregorio (Co-P.I.), K.M. Weaver (Co-P.I.), **D.R. Uden** (Collaborator), R. Diener (Collaborator), N. Childers (Collaborator), and M. Asher (Collaborator). U.S. Geological Survey and U.S. Fish and Wildlife Service Science Support Partnership Program. \$102,636. January 2022–May 2024.

- Pilot methodology for mapping vegetation transitions at multiple scales.
- Deliver science (map) products to collaborators.
- Relate vegetation transitions to wildlife populations and grassland management actions.

Remotely Sensed Early Warning of Toxic Algal Blooms in Nebraska Lakes. **Uden, D.R.** (P.I.), J. Corman, E. Van Wormer, C. Roberts, Y. Qi, and C.R. Allen. Daugherty Water for Food Global Institute Graduate Student Support Award. University of Nebraska. \$17,500. 01/01/2022–12/31/2022.

- Advise M.S. student.
- Pilot research on remote early detection of harmful algal blooms.
- Facilitate interdisciplinary team conversation and collaboration.

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. \$247,011. 11/01/2021–10/31/2024.

- Serve on graduate committees of students studying collaborative adaptive management.
- Participate in stakeholder planning meetings at Barta Brothers Ranch.

- Monitor vegetation responses to management with remote sensing (airborne) data.

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.

- Advise undergraduate student worker in ecosystem service geodatabase development.
- Identify focal landscapes for ecosystem service assessments.
- Collaborate with UNL and UNK faculty on additional grant submissions.

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.

- Serve on graduate committees of students studying collaborative adaptive management.
- Participate in stakeholder planning meetings at Barta Brothers Ranch.
- Monitor vegetation responses to management with remote sensing (airborne) data.

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.

- Participated in search and hiring of two Ph.D. students.
- Assisted with identification of pheasant survey routes and locations.
- Conducted spring pheasant crow count surveys.
- Co-lead monthly modeling meetings with Ph.D. students.

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.

- Map rangeland vegetation transitions of concern at multiple scales.
- Deliver science (map) products to collaborators for informing decision-making.
- Relate vegetation transition data to wildlife populations and management actions.

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. \$156,310. 07/01/2020–06/30/2022.

- Participated in search and hiring of statewide eastern redcedar coordinator.
- Map transitions from grassland to woodland at multiple scales.
- Deliver data products to collaborators for informing decision-making.

Resilience informatics for the convergence of critical capacities to address regional-scale environmental change. Twidwell, D. (P.I.), B.C. Chaffin, C.R. Allen, S. Banerjee, T. Floyd, **D.R. Uden** (co-performer), and B.W. Allred. National Science Foundation. Nebraska EPSCoR, Track II. \$3,953,265. 08/01/2019–07/31/2023.

- Map rangeland vegetation transitions of concern in the western United States.
- Converge biophysical and social science products for proactive transition management.
- Collaborate with researchers across multiple disciplines and academic institutions.

Teaching socio-environmental synthesis with case studies: Biome-scale woody plant transitions in the Great Plains. Fogarty, D. (P.I.), **D.R. Uden** (co-P.I.), V.M. Donovan, and C. Barnes. National Socio-Environmental Synthesis Center (SESYNC). \$5,020. 07/29/2019–08/02/2019.

- Completed a weeklong socio-environmental case study workshop.
- Developed a socio-environmental case study for integration into courses.
- Applied fuzzy cognitive mapping to understanding of woody plant encroachment.

Mapping spatial regimes in rangelands. Twidwell, D. (P.I.), C.R. Allen, and **D.R. Uden** (co-performer). University of Montana. \$140,000. 05/01/2018–06/30/2019.

- Piloted a methodology for vegetation transition mapping.
- Mapped vegetation transitions of concern at multiple scales in the western United States.
- Contributed data products to the Rangeland Analysis Platform (rangelands.app).

### **GRANTS DECLINED (2022 & 2023)**

Fostering the next generation of agricultural and natural resources professionals through experiential learning in research, education, and extension. Mamo, M. (P.I.), C. Cordova, H.A.S. Fagan, J. Keshwani, L. Sandall, and **D.R. Uden** (co-P.I.). USDA NIFA AFRI. \$749,670. 01/01/2023–12/31/2027.

Development and assessment of a sustainable industrial hemp feedstock for the bioeconomy. Santra, D. (P.I.), C.R. Allen, Y. Demirel, Y. Ge, M. Griep, E. Ingram, J. Keshwani, M. Maguire, B. Maharjan, G. Meredith, L. Nogueira-Rodriguez, X. Qiao, T. Ruth, **D.R. Uden** (co-P.I.), C. Walters, and M. Wilkins. USDA NIFA AFRI. \$9,927,966. 03/01/2023–02/28/2028.

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. Maharajan, 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.

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.

Net zero beef: A global imperative and Nebraska's Grand Challenge. Erickson, G. (P.I.), et al., and **D.R. Uden** (other personnel). University of Nebraska–Lincoln Grand Challenges. \$5,118,318. 07/01/2022–06/30/2027.

Weather Ready Farms Program: Fostering grassroots transformative and contagious change to create resilient landscapes. Allen, C. (P.I.) et al., and **D.R. Uden** (other personnel). University of Nebraska–Lincoln Grand Challenges. \$3,634,018. 07/01/2022–06/30/2027.

### **DECISION SUPPORT TOOLS DEVELOPED AND 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://insect-invasion-dev.netlify.app>
- In collaboration with a group of entomologists and tree biologists (Mech et al. 2019; Schulz et al. 2021; Uden et al. 2023).

#### Central Grasslands Roadmap Assessment Map.

- Identifies intact, at-risk, and converted grasslands from Canada to Mexico.
- I contributed spatial data on woody plant encroachment.
- Details online at:  
<https://static1.squarespace.com/static/5e600ddcde3d9a12661c36a7/t/6387e19f063a7831bc879d9f/1669849503477/Assessment+Map.pdf>
- In collaboration with Dirac Twidwell's Large-Scale Rangeland Conservation Lab.

#### Great Plains woody transition layers

- GIS layers showing grass-to-tree transitions at multiple scales from 1990–2020.
- Unveiled to NRCS state conservationists in two-day webinar (July 8–9, 2020).
- Available online at [www.rangelands.app](http://www.rangelands.app) and <http://rangeland.ntsg.umt.edu/data/rap/rap-derivatives/great-plains/woody-transitions/>
- In collaboration with Dirac Twidwell's Large-Scale Rangeland Conservation Lab.

#### Conservation Plains Grassland Biome: A Framework for Conservation Action. Natural Resources Conservation Service Working Lands for Wildlife. 2021–2025.

- Guide for scaling up grassland conservation on private working lands.
- Contributed maps of woody transitions in Great Plains grasslands (page 11).
- Available online at: <https://wlfw.rangelands.app/great-plains/>
- 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 (2021 and 2022).
- In collaboration with Dirac Twidwell's Large-Scale Rangeland Conservation Lab.

#### Montana cheatgrass transition maps

- Maps of shrub-to-annual grass transitions in Montana from 2000–2018.
- Focused on priority sage grouse conservation areas.
- Presented to Montana NRCS and U.S. Bureau of Land Management staff by Jeremy Maestas and Dirac Twidwell (11/05/2019).

#### Idaho, Wyoming, Nevada, and Utah cheatgrass transition maps and GIS data layers

- Maps of shrub-to-annual grass transitions and intact shrubland cores from 2000–2018.
- Featured in NRCS’s *Cheatgrass Challenge* webinar (09/11/2019).
- Delivered to NRCS personnel as ArcGIS layer packages.

#### 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](https://nebraskalegislature.gov/pdf/reports/committee/natural/lr387_2018.pdf)

#### The Nature Conservancy (TNC)

- Bend, Oregon. October 2, 2019. Delivered via email.
  - Follow-up to NRCS’s “Cheatgrass Challenge” webinar, which addressed problematic vegetation transitions on western U.S. rangelands.
  - Screened the Great Basin ecoregion for broad-scale transitions between shrub and annual grass dominance from 2000–2018.
  - 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.

#### 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](https://nebraskalegislature.gov/pdf/reports/committee/natural/lr387_2018.pdf)

#### Natural Resources Conservation Service (NRCS)

- Kansas NRCS. November 21, 2019. Hays, KS.
  - Screened Kansas rangelands (focus on Flint Hills, Smoky Hills, and Red Hills ecoregions) for transitions between grass and woody plant dominance at multiple scales from 2000–2018.
  - Mapped intact grassland cores throughout Kansas in 2000 and 2018.
  - Map and data products supported strategic group discussion on woody plant management led by Dirac Twidwell.
- 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.
  - Map and data products supported strategic management discussions led by Jeremy Maestas (NRCS) and Dirac Twidwell.
- Idaho NRCS and Wyoming NRCS. September 11, 2019. Delivered via webinar.

- Featured in 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.
- Delivered spatial data of statewide transition signals and intact shrub core areas to NRCS personnel as ArcGIS layer packages.

#### 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 IN PREPARATION OR REVIEW**

Barg, A., **D.R. Uden**, K.I.T. Bird, D.S. Bauloye, M. Baldissara, J. Hodge, J.F. Hinnant, N. Berkowitz, C.R. Nielson, A.R. Little, D.H. Ranglack, H. Ellerman, B. Zhao, R. Allen, and U.V.C. Ogbenna. 2023. Impacts of high streamflow events on white-tailed deer habitat use in central Nebraska. In preparation.

Bird, K.I.T., **D.R. Uden**, and C.R. Allen. 2023. Functional connectivity varies across scales in a fragmented landscape. PLOS ONE. In review.

Ludwig, A.K., C.P. Roberts, **D.R. Uden**, E.F. Stuber, D.T. Fogarty, T.L. Walker, Jr., and D. Twidwell. 2023. Hierarchical conservation efforts increase abundance of the threatened American burying beetle (*Nicrophorus americanus*) in the Central Great Plains. In preparation.

Roberts, C.P., D. Twidwell, C.R. Allen, B.W. Allred, D.G. Angeler, S.M. Cady, V.M. Donovan, B. Edwards, S. Morford, D.E. Naugle, R. Scholtz, J. Tack, and **D.R. Uden**. 2023. Integrating resilience and abundance signals to understand biome-scale collapse. In preparation.

Thompson, S., D. Varner, **D.R. Uden**, R. Grosse, and A. Bishop. 2023. Landscape influences on migratory dabbling duck abundance in Nebraska’s Rainwater Basin. In preparation.

Wagner, J., D. Wedin, **D.R. Uden**, and C.R. Allen. 2023. Bat utilization of novel afforested ecosystem in transitioning grassland. Ecology and Society. In preparation.



Wehrbein, C.D., B.M. Newkirk, G.E. Schuster, E.M. Forsberg, P. Akpejelu, C.P. Hart, N. Sipe, K.E. Dozler, H. Shehab, **D.R. Uden**, and A.R. Little. 2023. Southern flying squirrel urban habitat patches and connectivity. In preparation.

### **PEER-REVIEWED MANUSCRIPTS**

Allred, B.W., M.K. Creutzburg, J.C. Carlson, C.J. Cole, C.M. Dovichin, M.C. Duniway, M.O. Jones, J.D. Maestas, D.E. Naugle, T.W. Nauman, G.S. Okin, M.C. Reeves, M. Rigge, S.L. Savage, D. Twidwell, **D.R. Uden**, and B. Zhou. 2022. Guiding principles for using satellite-derived maps in rangeland management. *Rangelands* 44(1):78–86. <https://doi.org/10.1016/j.rala.2021.09.004>

Hogan, K.F.E., D.T. Fogarty, H. Ellerman, C.T. Fill, D. Morales, B. Seguin, **D.R. Uden**, and C.R. Allen. 2022. Rangelands in a fragmented grass-dominated landscape are vulnerable to tree invasion from roadsides. *Biological Invasions* 24:3341–3347. <https://doi.org/10.1007/s10530-022-02869-5>

Roberts, C.P., **D.R. Uden**, C.R. Allen, D.G. Angeler, L.A. Powell, B.W. Allred, M.O. Jones, J.D. Maestas, and D. Twidwell. 2022. Tracking spatial regimes in animal communities: Implications for resilience-based management. *Ecological Indicators* 136:108567. <https://doi.org/10.1016/j.ecolind.2022.108567>

Roberts, C.P., **D.R. Uden**, S.M. Cady, B.W. Allred, S.D. Fuhlendorf, M.O. Jones, J.D. Maestas, D.E. Naugle, A.C. Olsen, J. Smith, J. Tack, and D. Twidwell. 2022. Tracking spatial regimes as an early warning for a species of conservation concern. *Ecological Applications* 32(1):e02480. <https://doi.org/10.1002/eap.2480>

**Uden, D.R.**, A.M. Mech, N.P. Havill, A.N. Schulz, M.P. Ayres, D.A. Herms, A.M. Hoover, K.J.K. Gandhi, R.A. Hufbauer, A.M. Liebhold, T.D. Marsico, K.F. Raffa, K.A. Thomas, P.C. Tobin, and C.R. Allen. 2022. Phylogenetic risk assessment is robust for forecasting the impact of European insects on North American conifers. *Ecological Applications*. In press. <https://doi.org/10.1002/eap.2761>

Vallury, S., A. Smith, B.C. Chaffin, H. Nesbitt, S. Gulab, S. Banerjee, T. Floyd, S. Lohani, A.L. Metcalf, D. Twidwell, **D.R. Uden**, M. Williamson, and C.R. Allen. 2022. Adaptive capacity beyond the household: A systematic review of empirical social–ecological research. *Environmental Research Letters* 17:063001. <https://doi.org/10.1088/1748-9326/ac68fb>

Allred, B.W., B.T. Bestelmeyer, C.S. Boyd, C. Brown, K.W. Davies, L.M. Ellsworth, T.A. Erickson, S.D. Fuhlendorf, T.V. Griffiths, V. Jansen, M.O. Jones, J. Karl, A. Knight, J.D. Maestas, J.J. Maynard, S.E. McCord, D.E. Naugle, H.D. Starns, D. Twidwell, and **D.R. Uden**. 2021. Improving Landsat predictions of rangeland fractional cover with multi-task learning and uncertainty. *Methods in Ecology and Evolution* 12(5):841–849. <https://doi.org/10.1111/2041-210X.13564>

- Cady, S.M., C.A. Davis, S.D. Fuhlendorf, R. Scholtz, **D.R. Uden**, and D. Twidwell. 2021. Habitat selection is site-dependent for a generalist bird. *Ecology and Evolution* 11(18):12714–12727. <https://doi.org/10.1002/ece3.8016>
- Donovan, V.M., C.P. Roberts, C.L. Wonkka, **D.R. Uden**, D.G. Angeler, C.R. Allen, D. Wedin, R.A. Drijber, and D. Twidwell. 2021. Collapse, reorganization, and regime identity. *Ecology and Society*. 26(2):27. <https://doi.org/10.5751/ES-12340-260227>
- Scholtz, R., S.D. Fuhlendorf, **D.R. Uden**, B.W. Allred, M.O. Jones, D.E. Naugle, and D. Twidwell. 2021. Challenges of brush management treatment longevity in southern Great Plains, USA. *Rangeland Ecology and Management* 77(1):57–65. <https://doi.org/10.1016/j.rama.2021.03.007>
- Schulz, A.N., A.M. Mech, M.P. Ayres, K.J.K. Gandhi, N.P. Havill, D.A. Herms, A.M. Hoover, R.A. Hufbauer, A.M. Liebhold, T.D. Marsico, K.F. Raffa, P.C. Tobin, **D.R. Uden**, and K.A. Thomas. 2021. Predicting non-native insect impact: Focusing on the trees to see the forest. *Biological Invasions* 23:3921–3936. <https://doi.org/10.1007/s10530-021-02621-5>
- Uden, D.R.**, D.J. Wishart, L.A. Powell, R.B. Mitchell, C.R. Allen, and G. Steinauer. 2021. Adaptive fuel procurement in nineteenth century Great Plains landscapes. *Environment and History* 27(1):65–95. <https://doi.org/10.3197/096734019X15463432086946>
- Angeler, D.G., B.C. Chaffin, S.M. Sundstrom, A.S. Garmestani, K.L. Pope, **D.R. Uden**, D. Twidwell, and C.R. Allen. 2020. Coerced regimes: Managing artificial feedbacks to navigate the Anthropocene. *Ecology and Society* 25(1):4. <https://doi.org/10.5751/ES-11286-250104>
- Donovan, V.M., D. Twidwell, **D.R. Uden**, T. Tadesse, B.D. Wardlow, C.H. Bielski, M.O. Jones, B.W. Allred, D.W. Naugle, and C.R. Allen. 2020. Resilience to large, ‘catastrophic’ wildfires in North America’s grassland biome. *Earth’s Future* 8(7):e2020EF001487. <https://doi.org/10.1029/2020EF001487>
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#### **PEER-REVIEWED BOOK CHAPTERS**

Stephenson, M.B. and **D.R. Uden**. 2023. Innovations in Sandhills rangeland monitoring. In: Norby, N., S. Fritz, and K. Hachiya (eds.). *Nebraska Sandhills: An Atlas*. In press.

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Twidwell, D., **D.R. Uden**, C.P. Roberts, B.W. Allred, M.O. Jones, D.E. Naugle, and C.R. Allen. 2022. Mapping panarchy to improve visualization of complex environmental change. Pages 136–152 In: Gunderson, L.H., C.R. Allen, and A. Garmestani (eds.). *Applied panarchy: Applications and diffusion across disciplines*. Island Press, Washington, D.C., U.S.A. 352 pp.

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#### **PEER-REVIEWED BOOK CHAPTERS**

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#### **BOOK REVIEWS**

**Uden, D.R.** 2018. “Comanche marker trees of Texas” by Steve Houser, Linda Pelon, and Jimmy W. Arterberry (review). *Great Plains Research* 28(2): 218.

<https://doi.org/10.1353/gpr.2018.0042>

**Uden, D.R.** 2016. “As Far as the Eye Could Reach: Accounts of animals along the Santa Fe Trail, 1821-1880” by Phyllis S. Morgan (review). *Great Plains Research* 26(2):147–148.

**Uden, D.R.** 2015. “This far-off wild land: The Upper Missouri letters of Andrew Dawson” by Wischmann, L. and A.E. Dawson (review). *Great Plains Quarterly* 35(2):225.

### **CONFERENCE 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.

### **CONFERENCE PROCEEDINGS**

Ahamad, M., M. Ahmed, and **D.R. Uden**. 2022. Public search interests related to COVID-19: Insights from Google Search Trends in Bangladesh. International Meeting on Emerging Diseases and Surveillance 2021 Proceedings. *International Journal of Infectious Diseases* 116:S35. <https://doi.org/10.1016/j.ijid.2021.12.084>

Mech, A.M., K.A. Thomas, T.D. Marsico, D.A. Herms, C.R. Allen, M.P. Ayres, K.J.K. Gandhi, J. Gurevitch, N.P. Havill, R.A. Hufbauer, A.M. Liebhold, K.F. Raffa, A.N. Schulz, **D.R. Uden**, and P.C. Tobin. 2021. How available data can be used to predict the impact of non-native forest insects. Society of American Foresters 2020 National Convention Proceedings (Supplemental Information). *Journal of Forestry* 119(2), pp. S87, <https://doi.org/10.1093/jofore/fvab002>

### **ORAL RESEARCH PRESENTATIONS**

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.

Ahamad, M., D. Fogarty, C. Roberts, **D.R. Uden**, S. Morford, M.O. Jones, U.P. Kreuter, J. Weir, L. Goodman, S.D. Fuhlendorf, W.E. Rogers, M. Treadwell, B. Wu, J. Walker, B.P. Wilcox, D.E. Naugle, B.W. Allred, and D. Twidwell. 2020. Economics of scaling up brush management. 10<sup>th</sup> Annual Nebraska Natural Legacy Conference. Virtual. October.

Roberts, C., D. Fogarty, M. Ahamad, C. Barnes, V.M. Donovan, A. Ludwig, R. Scholtz, **D.R. Uden**, and D. Twidwell. 2020. Is the Nebraska Loess Canyons Ecoregion one of the greatest conservation success stories in the Great Plains? 2020. 10<sup>th</sup> Annual Nebraska Natural Legacy Conference. Virtual. October.

Twidwell, D., D. Fogarty, and **D.R. Uden**. 2020. Nebraska woody encroachment models. Nebraska Game and Parks Commission Meeting. Virtual invited meeting. May.

Twidwell, D., **D.R. Uden**, R. Scholtz, and D. Fogarty. 2020. A cultural movement to conserve the last grasslands. Nebraska Conservation Partners Workshop. Invited Virtual Workshop. July.

**Uden, D.R.** and D. Twidwell. 2019. Mapping cross-scale rangeland transitions. Society for Range Management (SRM) Annual Meeting. Minneapolis, MN. February 11.

**Uden, D.R.** 2017. Tree species distribution models in Indian Cave State Park. Nebraska Natural Legacy Conference. Nebraska City, NE. October 11.

**Uden, D.R.**, C.R. Allen, A.A. Bishop, R. Grosse, C.F. Jorgensen, T.G. LaGrange, R. Stutheit, and M.P. Vrtiska. 2017. Predictions of future waterbird stopover habitat. Midwest Fish and Wildlife Conference. Lincoln, NE. February 7.

Allen, C.R., **D.R. Uden**, M.L. Hellman, and D.G. Angeler. 2015. The contribution of reserves and anthropogenic habitat for functional connectivity and resilience of ephemeral wetland networks. American Geophysical Union (AGU) Fall Meeting. San Francisco, CA. December 14–18.

**Uden, D.R.**, C.R. Allen, T.D. McCoy, R.B. Mitchell, and Q. Guan. 2012. Potential impacts of biofuels and landuse change on grassland bird abundance. International Association for Landscape Ecology (IALE) North America Annual Meeting. Newport, RI. April 8–12.

### **POSTER RESEARCH PRESENTATIONS**

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.

Ludwig, A.K., **D.R. Uden**, and D. Twidwell. 2019. Prescribed fire as a land management tool for the endangered American burying beetle. Nebraska Prescribed Fire Conference, Kearney, NE. December 10.

Roberts, C.P., K.F.E. Hogan, D.T. Fogarty, J.L. Burnett, V.M. Donovan, H. Ellerman, C.T. Fill, B. Seguin, D. Twidwell, **D.R. Uden**, M. Whitby, and C.R. Allen. 2018. Some don't mind the heat: Biome-scale responses of grassland birds to fire. Nebraska Prescribed Fire Conference. Kearney, NE. December 6.

**Uden, D.R.** 2014. The role of ecological reserves and anthropogenic habitats for the functional connectivity and resilience of ephemeral wetlands. Nebraska Chapter Meeting of The Wildlife Society (TWS). Kearney, NE. February 7.



Jeziarski, C., E. Zach, **D.R. Uden**, C.R. Allen, M. Koch, J. Fontaine, R. Schneider, T.D. McCoy, and B. Larsen. 2013. Renewable energy development and wildlife in Nebraska—Striving for co-existence. Rural Futures Conference. Lincoln, NE. November 3–5.

**Uden, D.R.**, C.R. Allen, R.B. Mitchell, Q. Guan, and T.D. McCoy. 2013. Potential impacts of a perennial bioenergy feedstock on groundwater withdrawals under scenarios of future change. Water for Food Global Conference. Lincoln, NE. May 5–8.

### **PEER-REVIEWED MANUSCRIPT REVIEWER**

- *Canadian Water Resources Journal*. 2023. One manuscript.
- *Geocarto International*. 2023. One manuscript.
- *Ecosphere*. 2023. One manuscript.
- *Global Change Biology*. 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.

### **COURSES DEVELOPED AND/OR TAUGHT**

#### *Research Experiences in Grasslands* (GRAS/NRES/PLAS 398R)

- Undergraduate-level course (1–3 credits)
- Co-developed with Cheryl Dunn.
- Co-supervised Ph.D. student in course development.
- Cross-departmental opportunity for a formal grassland-focused research experience.
- Approved in Fall 2022; planned first offering in Fall 2023.

#### *Applications of Circuit Theory in Ecological Research* (NRES 896). Spring 2022.

- Graduate-level independent study course (3 credits).
- Serviced one graduate student researching ecological impacts of wildfire (2022).
- Research project-based course that contributes to student thesis.

#### *Great Plains Ecosystems* (AGRO/NRES/RNGE/PLAS 440/840). Spring 2021–2023.

- Undergraduate- and graduate-level course (3 credits).
- Offered asynchronous online section to accommodate remote graduate students.
- Supported graduate student TA (2021–2023).

#### *Landscape Ecology* (NRES 810/HORT 812) Fall 2021–2022.

- Graduate-level course (3 credits).
- Facilitated a class publication project.
- Co-taught with Andy Little (2021–2022).

#### *Resilience Thinking in Landscape Systems* (AGRO 496/ENVR 498/NRES 498) Spring 2021.

- January three-week (winterim) session.
- Undergraduate-level special topics course (2 credits).
- Promotes systems thinking and resilience thinking.

#### *Resilience Informatics*. University of Nebraska–Lincoln. Fall 2019.

- New graduate-level independent study course

- Co-develop research products with spatial resilience themes.
- Co-taught with Dirac Twidwell.

*No such thing as a free lunch: Trade-offs of trees in grassy ecosystems.* Summer 2019.

- Socio–environmental case study for integration into future courses.
- Designed with an interdisciplinary research team at the National Socio-Environmental Synthesis Center (SESYNC) in Annapolis, MD.
- Uses concept maps to promote systems thinking and understanding of social–environmental linkages.
- Available online at: <https://www.sesync.org/resources/no-such-thing-free-lunch-trade-offs-trees-grassy-ecosystems>

### **GUEST LECTURES**

*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.

### **ADVISING/CO-ADVISING**

University of Nebraska–Lincoln

- M.S. Graduate Research Assistants
  - Mercy Kipenda. School of Natural Resources. Spring 2022–present. Advisor.
  - Paul Akpejelu. School of Natural Resources. Spring 2021–present. Advisor.
  - Daniel Bauloye. School of Natural Resources. Fall 2020–present. Advisor.
- Ph.D. Research Assistants
  - Megan Baldissara. School of Natural Resources. Summer 2022–present. Co-advisor (with Andy Little).
  - Noah Berkowitz. School of Natural Resources. Summer 2022–present. Co-advisor (with Brian Wardlow).
- M.S. Online Graduate Students
  - Julia Kehoe. Department of Agronomy and Horticulture. Summer 2022–present.
  - Drew Ratkovec. Department of Agronomy and Horticulture. Spring 2022–present.
- Postdoctoral Research Associates
  - Mazbahul Ahamad. Department of Agronomy and Horticulture. Summer 2021–Fall 2021.
- Temporary worker supervisor
  - Ashley Jonas. Spring 2022.
  - Mazbahul Ahamad. Spring 2022.

**STUDENT COMMITTEE SERVICE**

## University of Nebraska–Lincoln

- Undergraduate
  - Integrated Sciences Major Committee
    - Reagan Salverson. Summer 2021–Spring 2022.
- Graduate
  - Master of Science (M.S.) Committee
    - Braxton Newkirk. School of Natural Resources. Spring 2023–present.
    - Emma Bulanek. School of Natural Resources. Spring 2023–present.
    - Dylan Kent. Department of Agronomy and Horticulture. Spring 2022–present.
    - Christian Nielsen. School of Natural Resources. Spring 2022–present.
    - Jackson Ebbers. Department of Agronomy and Horticulture. Spring 2022–present.
    - Connor Hart. School of Natural Resources. Fall 2021–present.
    - Jacob Wagner. School of Natural Resources. Fall 2021–present.
    - Kleidy Camela. School of Natural Resources. Summer 2021–present.
    - Daniel Morales. School of Natural Resources. Fall 2019–present.
    - 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/>
  - Master of Applied Science (M.A.S.) Committee
    - Seth Peterson. School of Natural Resources. Fall 2020.
  - Doctor of Philosophy (Ph.D.) Committee
    - Kyle Martens. School of Natural Resources. Spring 2023–present.
    - Lillian Hoffart. School of Biological Sciences. Spring 2023–present.
    - Caleb Wehrbein. Department of Agronomy and Horticulture. Fall 2022–present.
    - Hunter Ellsworth. School of Natural Resources. Fall 2022–present.
    - Allison Barg. School of Natural Resources. Fall 2021–present.
    - Catherine Chan. School of Natural Resources. Fall 2021–present.
    - Heydi Calderon Ambelis. Department of Biological Systems Engineering. Fall 2021–present.

## University of Arkansas

- M.S. Committee
  - Lauren Berry. Arkansas Cooperative Fish and Wildlife Research Unit. Fall 2022–present.

## University of Montana

- Ph.D. Committee

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

### **DEPARTMENTAL AND CENTER COMMITTEE SERVICE**

School of Natural Resources. University of Nebraska–Lincoln.

- GIS M.S. degree specialization contact. 2023–present.
- Spatial Science Curriculum Group. 2021–present.
- Natural Resources Diversity and Inclusion (NRDI) Committee. 2018–2021.  
<http://snr.unl.edu/employeeinfo/people/committee/nrdi.aspx>
- Position search committees
  - Nebraska Cooperative Fish and Wildlife Research Unit Scientist. Search committee member. Fall 2022–Spring 2023.

Center for Grassland Studies. University of Nebraska–Lincoln.

- Grassland Systems Faculty Committee. 2021–present.  
<https://grassland.unl.edu/grassland-systems>
- Position search committees
  - Grazing Lands Ecologist and Center for Grassland Studies Director. Committee member. Fall 2021–Spring 2022.
  - Grazing Lands Ecologist. Committee member. Fall 2022.
- Center for Grassland Studies Newsletter Contributor. Fall 2020, March 2022.

Nebraska Beef Innovation Hub (formerly Nebraska Integrated Beef Systems)

- Faculty Advisory Committee member. 2021–present.  
<https://beefinnovation.unl.edu/faculty-advisory-committee>

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

- FAC Research Work Team. Summer–Fall 2022.
  - Co-chaired group with Patricio Grassini.
  - Synthesized information on building research capacity across the department.
  - Presented overview on building research capacity at the October 2022 Departmental Faculty Retreat.
  - Synthesized faculty feedback for the 2023 Academic Program Review.
- Agronomy and Horticulture Seminar Series Committee. 2021–present.
  - Served as committee co-chair with Stevan Knezevic (2022–present).
  - Coordinated speaker schedule and assisted with staff with seminar prep.
- Position search committees
  - Grazing Lands Ecologist and Center for Grassland Studies Director. Committee member. Fall 2021.
  - Eastern Redcedar Statewide Coordinator. Committee member. Spring 2021.

### **PROFESSIONAL DEVELOPMENT**

University of Nebraska–Lincoln

- 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.

**ACADEMIC SOCIETY MEMBERSHIPS**

The Resilience Alliance. <https://www.resalliance.org/> Member Summer 2022–present.