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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.

EMPLOYMENT

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

AWARDS

University of Nebraska–Lincoln

- Agricultural Research Division (ARD) 2023 Junior Faculty Excellence in Research Award.

FELLOWSHIPS

University of Nebraska–Lincoln

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

GRANTS PENDING

UAS-based optimization of prescribed fire for sustaining forest function and resilience. Russo, S. (P.I.), Y. Ge, **D.R. Uden** (co-P.I.), R. Wood, and T. Bragg. USDA-NIFA: AFRI-FAS. \$750,000. 04/01/2024–03/31/2028.

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: AFRI-REEU. \$597,589. 01/01/2024–12/31/2027.

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-EMIT. \$372,777. 02/01/2024–01/31/2027.

GRANTS AWARDED

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.

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.

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. \$10,000. 07/11/2023–09/30/2024.

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.

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.

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.

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. University of Nebraska. \$35,000. 01/01/2022–12/31/2023.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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** (co-performer), and B.W. Allred. National Science Foundation. Nebraska EPSCoR, Track II. \$3,953,265. 08/01/2019–07/31/2023.

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.

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.

GRANTS DECLINED (2023)

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

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. \$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. 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.

Climate smart beef: Advancing development of assessments, practices, and tools (ADAPT). G. (P.I.), et al., and **D.R. Uden** (other personnel). University of Nebraska–Lincoln Grand Challenges. \$5,204,497. 10/01/2023–09/30/2028.

Weather Ready Farms: Creating resilient, healthy, and equitable agroecosystems. Allen, C. (P.I.) et al., and **D.R. Uden** (other personnel). University of Nebraska–Lincoln Grand Challenges. \$4,390,051. 07/01/2023–06/30/2028.

DECISION SUPPORT TOOL DEVELOPMENT AND DELIVERY

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).

Central Grasslands Roadmap Assessment Map.

- Identifies intact, at-risk, and converted grasslands from Canada to Mexico.
- I contributed spatial data on woody plant (trees and shrubs) encroachment.
- Details online at: <https://static1.squarespace.com/static/5e600ddcde3d9a12661c36a7/t/64bb1242a02522143a1edeb4/1689981506867/Roadmap+Assessment+Map+1.0+-+7+21+23.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.
- 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
- Updated maps to be hosted soon on a new rangeland informatics platform.
- 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, and 2022).
 - Screened Kansas rangelands (focus on Flint Hills, Smoky Hills, and Red Hills ecoregions) for multi-scale transitions between grass and woody plant dominance.
 - Mapped intact grassland cores throughout Kansas.
 - 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.
 - 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.

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*.

OUTREACH AND MEDIA COVERAGE (SELECTED RECENT)

Collaborative Adaptive Management at UNL's Barta Brothers Ranch

- Meeting with Congressman Adrian Smith and Staff. August 22, 2023.
<https://adriansmith.house.gov/media/column/nebraskas-people-make-nebraska-great>
- Parsons, J., M. Stephenson, K. Martens, G. Meredith, and **D.R. Uden**. March 1, 2023. The Center for Agricultural Profitability contributes to collaborative adaptive management project at the Barta Brothers Ranch. Cornhusker Economics.
<https://agecon.unl.edu/center-agricultural-profitability-contributes-collaborative-adaptive-management-project-barta>
- April 25th live on RFD-TV. Featured in UNL today on May 1, 2023.
<https://news.unl.edu/newsrooms/today/article/uden-discusses-sandhills-land-management-on-rfd-tv/>

Great Plains Woody Encroachment maps

- Vaughan, C. December 7, 2023. A 'Green Glacier' is Dismantling the Great Plains. Opinion. Guest Essay. *New York Times*
<https://www.nytimes.com/2023/12/07/opinion/prairie-great-plains-trees.html>
 - Provided early warning signal for woody encroachment data (years 1990 and 2021) used in maps by T. Maggiacomo.
- Great Plains Grasslands Extension Partnership. 2023. Reducing woody encroachment in grasslands: A pocket guide for planning and design. <https://www.wlfw.org/new-pocket->

[guide-provides-unified-planning-process-for-reducing-woody-encroachment-in-grasslands/](#)

- Provided early warning signal for woody encroachment data and maps (years 1990 and 2021) featured on page 12.
- Fogarty, D.T. and D. Twidwell. June 1, 2023. Defend the core, grow the core: Tackling eastern redcedar encroachment in Nebraska's grasslands. University of Nebraska-Lincoln Beefwatch. <https://beef.unl.edu/beefwatch/2023/defend-core-grow-core-tackling-eastern-redcedar-encroachment-nebraska%E2%80%99s-grasslands>
 - Provided early warning signal for woody encroachment data (years 1990 and 2021) featured in the article.
- Cornell Lab of Ornithology. 2023. Reconsidering cedar: The threat to Nebraska's Sandhills. <https://www.birds.cornell.edu/conservation-media/reconsidering-cedar/>
 - Provided early warning signal for woody encroachment data and maps (years 1990, 2000, 2010, and 2020) featured in videos.
- National Cattlemen's Beef Association (NCBA) Cattlemen to Cattlemen. <https://www.wlfw.org/news/photos-and-video/cattlemen-to-cattlemen-shows/>
 - Provided early warning signal for woody encroachment data and maps (years 1990 and 2020) featured in videos.
- Great Plains Grasslands Biome: A framework for conservation action. 2021-2025. NRCS Working Lands for Wildlife. <https://www.wlfw.org/wp-content/uploads/2022/11/GreatPlainsFramework.pdf>
 - Provided early warning signal for woody encroachment data and maps (years 2000 and 2018) featured on page 11.
- Twidwell, D., D. T. Fogarty, and J.R. Weir. 2021. Reducing woody encroachment in grasslands: A guide to understanding risk and vulnerability. Oklahoma Cooperative Extension Service. https://search.nal.usda.gov/discovery/delivery/01NAL_INST:MAIN/12284853920007426
 - Provided early warning signal for woody encroachment data and maps (years 2000 and 2018) featured on page 8.

University of Nebraska Center for Grassland Studies Newsletter Contributor

- **Uden, D.R.** March 2022. New course: Research Experiences in Grasslands. <https://grassland.unl.edu/March%20FINAL%20032222.pdf>
- **Uden, D.R.** 2020. Screening for rangeland transitions. Volume 26, Issue 3. <https://grassland.unl.edu/pdf/newsletters/2020FallNewsletter.pdf>

PEER-REVIEWED MANUSCRIPTS (IN REVIEW)

**Graduate student lead author*

Nesbitt, H.K., A.L. Metcalf, T.M. Floyd, **D.R. Uden**, B.C. Chaffin, S. Gulab, S. Banerjee, S. Vallury, S.L. Hamlin, E.C. Metcalf, D. Twidwell, D.T. Fogarty, and C.R. Allen. 2024. Social networks and transformative behaviors in a grassland social-ecological system. People and Nature. In review.

Scholtz, R., **D.R. Uden**, B.W. Allred, J.D. Maestas, S.L. Morford, M.O. Jones, D.E. Naugle, S.M. Cady, D.T. Fogarty, A.L. Metcalf, B.C. Chaffin, C.R. Allen, E. Rowen, G. Meredith, N.K. Nesbitt, M.A. Williamson, S. Gulab, S. Hamlin, S. Lohani, S. Vallury, S. Banerjee, and D. Twidwell. 2024. Monitoring early warning signals to Resist-Accept-Direct (RAD) ecological collapse. *Conservation Letters*. In review.

Schulz, A.N., N.P. Havill, T.D. Marsico, M.P. Ayres, K.J.K. Gandhi, D.A. Herms, A.M. Hoover, R.A. Hufbauer, A.M. Liebhold, K.F. Raffa, K.A. Thomas, P.C. Tobin, **D.R. Uden**, and A.M. Mech. 2024. What is a specialist? Quantifying host breadth enables impact prediction for invasive herbivores. *Proceedings of the National Academy of Sciences*. In review.

*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 review.

PEER-REVIEWED MANUSCRIPTS (PUBLISHED)

**Graduate student lead author*

*Bird, K.I.T., **D.R. Uden**, and C.R. Allen. 2023. Functional connectivity varies across scales in a fragmented landscape. *PLOS ONE* 18(8):e0289706.

<https://doi.org/10.1371/journal.pone.0289706>

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. 2023. Phylogenetic risk assessment is robust for forecasting the impact of European insects on North American conifers. *Ecological Applications* 33(2):e2761.

<https://doi.org/10.1002/eap.2761>

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>

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>

*Fogarty, D.T., C.P. Roberts, **D.R. Uden**, V.M. Donovan, C.R. Allen, D.E. Naugle, M.O. Jones, B.W. Allred, and D. Twidwell. 2020. Woody plant encroachment and the sustainability of priority conservation areas. *Sustainability* 12(20):8321. <https://doi.org/10.3390/su12208321>

Jones, M.O., D.E. Naugle, D. Twidwell, **D.R. Uden**, J.D. Maestas, and B.W. Allred. 2020. Beyond inventories: Emergence of a new era in rangeland monitoring. *Rangeland Ecology and Management* 73(5):577–583. <https://doi.org/10.1016/j.rama.2020.06.009>

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. Schultz, **D.R. Uden**, and P.C. Tobin. 2019. Evolutionary history predicts the impact of non-native herbivorous insects on North American conifers. *Ecology and Evolution* 9(21):12216–12230. <https://doi.org/10.1002/ece3.5709>

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Allen, C.R., H.E. Birgé, S.L. Bartelt-Hunt, R.A. Bevans, J.L. Burnett, B.A. Cosens, X. Cai, A.S. Garmestani, I. Linkov, E.A. Scott, M.D. Solomon, and **D.R. Uden**. 2016. Avoiding decline: Fostering resilience and sustainability in midsize cities. *Sustainability* 8(9):844. <https://doi.org/10.3390/su8090844>

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- *Uden, D.R.**, C.R. Allen, A.A. Bishop, R. Grosse, C.F. Jorgensen, T.G. LaGrange, R.G. Stutheit, and M.P. Vrtiska. 2015. Predictions of future ephemeral springtime waterbird habitat availability under global change. *Ecosphere* 6(11):215. <https://doi.org/10.1890/ES15-00256.1>
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- *Uden, D.R.**, C.R. Allen, R.B. Mitchell, T.D. McCoy, and Q. Guan. 2015. Predicted avian responses to bioenergy development scenarios in an intensive agricultural landscape. *Global Change Biology Bioenergy* 7(4):717–726. <https://doi.org/10.1111/gcbb.12157>
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- Allen, C.R., K.T. Nemec, K.L. Decker, D.A. Wardwell, M. Brust, D. Fogell, J.D. Hoffman, J. Hogue, A. Lotz, T. Miller, M. Pummill, L.E. Ramirez-Yanes, and **D.R. Uden**. 2013. Predictors of regional establishment success and spread of introduced nonindigenous vertebrates. *Global Ecology and Biogeography* 22(7):889–899. <https://doi.org/10.1111/geb.12054>
- *Stephen, B.J., N.M. Chaine, C.R. Allen, K.A. Fricke, D.M. Haak, M.L. Hellman, R.A. Kill, K.T. Nemec, K.L. Pope, N.A. Smeenk, **D.R. Uden**, K.M. Unstad, A.E. VanderHam, and A. Wong. 2013. Fecundity of the Chinese mystery snail in a Nebraska Reservoir. *Journal of Freshwater Ecology* 28(3):439–444. <https://doi.org/10.1080/02705060.2013.769127>
- *Uden, D.R.**, C.R. Allen, R.B. Mitchell, Q. Guan, and T.D. McCoy. 2013. Scenarios of bioenergy development impacts on regional groundwater withdrawals. *Journal of Soil and Water Conservation* 68(5):124A–128A. <https://doi.org/10.2489/jswc.68.5.124A>
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- *Unstad, K.M., **D.R. Uden**, C.R. Allen, N.M. Chaine, D.M. Haak, D.M., R.A. Kill, K.L. Pope, B.J. Stephen, and A. Wong. 2013. Survival and behavior of Chinese mystery snails (*Bellamya*

chinensis) in response to simulation water body drawdowns and air exposure. *Management of Biological Invasions* 4(2):123–127. <http://dx.doi.org/10.3391/mbi.2013.4.2.04>

*Wong, A., C.R. Allen, N.M. Hart, D.M. Haak, K.L. Pope, N.A. Smeenk, B.J. Stephen, and **D.R. Uden**. 2013. Enamel-based mark performance for marking Chinese mystery snail *Bellamya chinensis*. *Management of Biological Invasions* 4(3):231–234. <http://dx.doi.org/10.3391/mbi.2013.4.3.05>

*Chaine, N.M., C.R. Allen, K.A. Fricke, D.M. Haak, M.L. Hellman, R.A. Kill, K.T. Nemecek, K.L. Pope, N.A. Smeenk, B.J. Stephen, **D.R. Uden**, K.M. Unstad, and A.E. Vanderham. 2012. Population estimate of Chinese mystery snail (*Bellamya chinensis*) in a Nebraska reservoir. *BioInvasion Records* 1(4):283–287. <http://dx.doi.org/10.3391/bir.2012.1.4.07>

Mitchell, R.B., K.P. Vogel, and **D.R. Uden**. 2012. The feasibility of switchgrass for biofuel production. *Biofuels* 3(1):47–59. <https://doi.org/10.4155/bfs.11.153>

PEER-REVIEWED BOOK CHAPTERS

Stephenson, M.B. and **D.R. Uden**. 2024. Innovations in Sandhills rangeland monitoring. In: S. Fritz and K. Hachiya (eds.). *Nebraska Sandhills: An Atlas*. In press.

Allen, C.R., D.G. Angeler, A. Garmestani, C.P. Roberts, S. Sundstrom, D. Twidwell, and **D.R. Uden**. 2022. Applications of spatial regimes. Pages 94–115 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.

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.

Allen, C.R., **D.R. Uden**, A.R. Johnson, and D.G. Angeler. 2015. Spatial modeling approaches for understanding and predicting the impacts of invasive alien species on native species and ecosystems. Pages 162–170 In: Vennette, R.C. (ed). *Pest risk modelling and mapping for invasive alien species*. CAB International, Wallingford, U.K. 252 pp.

BOOK REVIEWS

**Graduate student lead author*

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>

Schulz, A.N., A.M. Mech, 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 R.A. Hufbauer. 2022. Synthesis and utilization of big data for forecasting the impacts of non-native forest insects in North America. Arango, R.A. and D.S. Pureswan, Eds. Proceedings of the 7th North American Forest Insect Work Conference, Shaping Forests: Action in a Changing World. USDA Forest Service FHAAS-2022-01. 231 p. <https://www.fs.usda.gov/foresthealth/technology/pdfs/FHAAS-2022-01-NAFIWC-Proceedings.pdf>

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 (SELECTED)

**Graduate student lead author*

Uden, D.R., 2024. Mapping woody encroachment in Great Plains grasslands. Great Plains Cooperative Ecosystem Studies Unit. CESU Annual Meeting. Lincoln, NE. January 18.

*Baldissara, M., A. Barg, A. Little, and **D.R. Uden**. 2023. The scale of pheasant habitat research in the North American Great Plains. Nebraska Natural Legacy Conference. Norfolk, NE. October 5.

*Barg, A., M. Baldissara, **D.R. Uden**, and A. Little. 2023. Information strategic pheasant habitat conservation in agricultural landscapes. Nebraska Natural Legacy Conference. Norfolk, NE. October 5.

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.

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. 10th 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. 10th 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 (SELECTED)**Graduate student lead author****Undergraduate student lead author*

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.*

Akpejelu, 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.

*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.
- *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.

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 Spring 2025.

Ecosystem Monitoring and Assessment (NRES/PLAS/RNGE 444; AGRO/NRES 844). Fall 2023.

- Undergraduate- and graduate-level course (3 credits).

- Co-taught with Nic McMillan (2023).
- Developed and delivered content on digital monitoring tools/techniques.
- Mentored student TA (2023).

Great Plains Ecosystems (NRES/PLAS/RNGE 440; AGRO/NRES 840/840-700). Spring 2021–2023.

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

Landscape Ecology (NRES 810/HORT 812) Fall 2021–2023.

- Graduate-level course (3 credits).
- Facilitated class research projects.
- Co-taught with Andy Little (2021–2023).

Ecological Applications of Landscape Connectivity (NRES 896). Spring 2022 & Fall 2023.

- 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).

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

Visiting International Agricultural Students (Kobe, Japan). Fall 2022 and Fall 2023.

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

**Graduated*

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–Fall 2023. Advisor.
 - *Daniel Bauloye. School of Natural Resources. Fall 2020–Spring 2023. Advisor.
<https://digitalcommons.unl.edu/natresdiss/358/>
- 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).
 - Catherine Chan. School of Natural Resources. Summer 2023–present. Co-advisor (with John Gamon).
- M.S. Online Graduate Students
 - Julia Kehoe. Department of Agronomy and Horticulture. Summer 2022–present.
 - *Drew Ratkovec. Department of Agronomy and Horticulture. Spring 2022–Spring 2023.
- Research and Extension Experiences for Undergraduates
 - *Hannah Allen. Department of Agronomy and Horticulture. Applied Plant Systems. Summer 2023.
- Postdoctoral Research Associates
 - Theo Michaels. School of Natural Resources. Center for Resilience in Agricultural Working Landscapes. Spring 2023–present.
 - Mazbahul Ahamad. Department of Agronomy and Horticulture. Summer 2021–Fall 2021.
- Temporary worker supervisor
 - Nicholas Ferrauolo. Fall 2023–present.
 - Ashley Jonas. Spring 2022.
 - Mazbahul Ahamad. Spring 2022.

STUDENT COMMITTEE SERVICE

**Graduated*

University of Nebraska–Lincoln

- Undergraduate
 - Integrated Sciences Major Committee
 - *Reegan Salverson. Summer 2021–Spring 2022.
- Graduate
 - Master of Science (M.S.) Committee
 - David Sandahl. School of Natural Resources. Fall 2023–present.
 - Kate Asmus. School of Natural Resources. Spring 2023–present.
 - Braxton Newkirk. 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–Fall 2023.
<https://digitalcommons.unl.edu/natresdiss/366/>
 - *Katie Piccora. 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/>
 - Master of Applied Science (M.A.S.) Committee
 - Emma Bulanek. School of Natural Resources. Spring 2023–present.
 - *Seth Peterson. School of Natural Resources. Fall 2020.
 - Doctor of Philosophy (Ph.D.) Committee
 - 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–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.
 - Heydi Calderon Ambelis Han. Department of Biological Systems Engineering. Fall 2021–present.

- 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

College of Agricultural Sciences and Natural Resources. University of Nebraska-Lincoln.

- CASNR Curriculum Committee member. Grassland Systems representative. Fall 2023–present.

School of Natural Resources. University of Nebraska–Lincoln.

- Faculty Advisory Committee. Member. Fall 2023 – present.
- Facilities and Safety Committee. Member. Fall 2023 – present.
- Applied Climate and Spatial Sciences Program Area. Co-chair Fall 2023 – present.
- Position search committees
 - Applied Climate Scientist (State Climatologist). Search committee member. Fall 2023 – present.
 - Nebraska Cooperative Fish and Wildlife Research Unit Scientist. Search committee member. Fall 2022 – present.
- GIS M.S. degree specialization contact. 2023 – present.
- Spatial Science Curriculum Group. 2021 – present.
- Natural Resources Diversity and Inclusion (NRDI) Committee member. 2018 – 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–present.

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.

PROFESSIONAL DEVELOPMENT

University of Nebraska–Lincoln

- College of Agricultural Sciences and Natural Resources
 - 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.

ACADEMIC SOCIETY MEMBERSHIPS

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

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