

Paul R. Hanson
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Professional Appointments

Professor, University of Nebraska-Lincoln, School of Natural Resources, July 2017-present
Director, Great Plains Cooperative Ecosystem Studies Unit, Jan 2020-present
Courtesy Faculty Member, University of Nebraska-Lincoln, School of Global Integrative Studies, June 2021-May 2026
Associate Director, School of Natural Resources, University of Nebraska-Lincoln, January 2014-June 2019
Associate Professor, University of Nebraska-Lincoln, School of Natural Resources, July 2011-2017
Research Associate, Wisconsin Geological and Natural History Survey, 2011-2024
Assistant Professor, University of Nebraska-Lincoln, School of Natural Resources, October 2005-June 2011

Education

University of Nebraska-Lincoln	Major: Geosciences	Ph.D. 2005
University of Nebraska-Lincoln	Major: Geosciences	M.S. 2003
University of Wisconsin-Milwaukee	Major: Anthropology	B.A. 1994

Awards

Invited Visiting Professor, University Paul Sabatier and University of Toulouse, Toulouse, France, September to October 2024
Charles E. Bessey Award for the best Natural Sciences Paper in the journal Great Plains Research in 2013 for Puta et al. (see citation below) manuscript on dune evolution in northeastern Nebraska.
Nominated for Outstanding Teaching in the College of Agriculture and Natural Resources, April 2018.

Peer-Reviewed Publications

Submitted/In Review/Accepted

Mandel, R.D., Layzell, A.L., **Hanson, P.R.**, submitted. Late Quaternary landscape evolution in rivers valleys of the Nebraska Sand Hills, USA. Quaternary Science Reviews.
Loope, H., Antinao, J.L., **Hanson, P.R.**, Jacobs, P., Grimley, D., In review. Last glacial maximum and late glacial eolian sand activity linked to Laurentide Ice Sheet extent and no-analog paleoenvironmental conditions, south-central Indiana, USA. Quaternary Research.
Mahan, S., Mead, J., **Hanson, P.R.**, Jass, C., Holen, S., Krolczyk, in review. Age reassignment using luminescence dating for the Mammoth Site, Black Hills, South

Dakota, USA. Quaternary Research.

Hanson, P.R., Joeckel, R.M., Accepted. Stratigraphy and OSL chronology of lunette deposits indicates that Nebraska's Rainwater Basins formed by eolian deflation between 25 and 39 ka. Quaternary Research.

Published

- Benes, J.V., **Hanson, P.R.**, Fritz, S.C., in press. Fires and drought during the Euro-American settlement period (1850-1950) in the Nebraska Sand Hills. *The Holocene* 35, 835-843, <https://doi.org/10.1177/09596836251340843>.
- Mahoney, G., Mandel, R., **Hanson, P.R.**, Fritz, S., 2025. Early Holocene interaction of eolian, alluvial and lacustrine processes in a dune-dammed paleovalley in the central Nebraska Sand Hills. *Quaternary Research* 124, 121-138.
- Hanson, P.R.**, Joeckel, R.M., Howard, L.M., 2024. Locating and Assessing Oregon Trail Ruts with Aerial Stereophotographs, Satellite Imagery and LiDAR. *Great Plains Research* 34:2, 67-83.
- Schmidt, C., Halter, T., **Hanson, P.R.**, Ulianov, A., Putlitz, B., King, G.E., Kreutzer, S., 2024. Zircon luminescence dating re-visited. *Geochronology* 6, 665-682, [doi.org/10.5194/gchron-6-665-2024].
- Layzell, T., Andrzejewski, K., Mandel, R.D., **Hanson, P.R.**, 2024. Landscape and paleoenvironmental change in stream valleys of the central Great Plains, North America during Marine Isotope Stage 3 (ca. 59-27 ka). *Quaternary Science Reviews* 338, 10830, [doi.org/10.1016/j.quascirev.2024.108830].
- Huang, X., Miao, X., Chang, Q., Zhong, J., Mason, J.A., **Hanson, P.R.**, Ou, X., Xu, L., Lai, Z. 2022. Tibetan dust accumulation linked to ecological and landscape response to global climate change. *Geophysical Research Letters* 49, Issue 1.
- Miao, X., Chongyi, E., Xu, S., Wang, Q., **Hanson, P.R.**, Chen, H., Shi, Y., 2022. Age and source of coastal loess deposits in Shandong Province, Bohai Sea, China: Loess Aggradation in Response to Sea-Level Change. *Aeolian Research* 54, 1-11.
- Sweeney, M.R., McDonald, E.V., Chabela, L.P., **Hanson, P.R.**, 2020. The role of eolian-fluvial interactions and dune dams in alluvial fan and ephemeral wash dynamics, late Pleistocene-Holocene, Mojave Desert, USA. *Geological Society of America Bulletin* B35434.1.
- Miao, X., Stohr, C., **Hanson, P.R.**, Wang, Q., 2020. Remote sensing and three-dimensional photogrammetric analysis of glaciofluvial sand and gravel deposits in McHenry County, Illinois, USA. *Engineering Geology* 274, article 105695.
- Johnson, W.C., **Hanson, P.R.**, Halfen, A.F., Koop, A.N. 2020. Sand dunes of the central and southern Great Plains, in: Lancaster, N. and Hesp, P. (eds) *Inland Dunes of North America*. Springer. Pages 121-179.
- Carson, E.C., Attig, J.W., Rawling, J.E. III, **Hanson, P.R.**, Dodge, S.E., 2020. Constraints on the end of MIS 2 advance and onset of cessation for the Green Bay Lobe of the Laurentide Ice Sheet, south-central Wisconsin, USA. *Quaternary Research* 95, 142-153.
- Joeckel, R.M., **Hanson, P.R.**, Howard, L.M., 2019. Solving a periglacial puzzle: Pleistocene

- polygonal ground in north-central Nebraska. *Great Plains Research* 29, 153-168.
- Aslan, A., Karlstrom, K., Kirby, E., Heizler, M., Granger, D., Feathers, J., **Hanson, P.R.**, Mahan, S., 2019. Resolving time-space histories of Cenozoic bedrock incision along the Upper Colorado River, USA. *Geomorphology* 347, 1-26.
- Miao, X., **Hanson, P.R.**, Stohr, C., Wang, H., 2019. Evidence Supporting Holocene Loess in Illinois with New Proxy Data and Historical, Regional Perspectives on Loess Deposition in the Upper Mississippi River Valley. *Quaternary Science Reviews* 216, 119-123.
- Baldauf, P.E., Burkhart, P., **Hanson, P.R.**, Larsen, A.K., 2019. Chronology of White River Badlands Aeolian sedimentation, northern Great Plains, South Dakota, USA. *Aeolian Research* 37, 14-24.
- Johnson, W.C., Halfen, A.F., Spencer, J.Q.G., **Hanson, P.R.**, Young, A.R., Mason, J.A., 2019. Late MIS 3 Stabilization of dunes in northeastern Kansas, USA. *Aeolian Research* 36, 68-81.
- Huckleberry, G., Henderson, T.K., **Hanson, P.R.**, 2018. Flood-damaged canals and human response, A.D. 1000-1400, Phoenix, Arizona, USA. *Journal of Field Archaeology* 43, 604-618.
- Martin, S.J., Funch, R.R., **Hanson, P.R.**, Enki Yoo, E.-H., 2018. Massive 4000-year-old termite populations continue to survive in NE Brazil. *Current Biology* 28, R1283-R1295.
- Miao, X., **Hanson, P.R.**, Stohr, C.J., Wang, H., 2018. Holocene loess in Illinois revealed by OSL dating: Implications for stratigraphy and geoarchaeology of the Midwest United States, *Quaternary Science Reviews* 200, 253-261.
- Joeckel, R.M., Diffendal, R.F., **Hanson, P.R.**, Korus, J.T., 2018. Geologic Mapping of Nebraska: Old Rocks, New Maps, Fresh Insights. *Great Plains Research* 28, 119-147.
- Hooke, R. LeB., **Hanson, P.R.**, 2017. Late- and Post-glacial history of the East Branch of the Penobscot River, Maine. *Atlantic Geology* 53, 285-300.
- Hooke, R. LeB., **Hanson, P.R.**, Belknap, D.F., Kelley, A.R., 2017. Late Holocene history of the Penobscot River in the Penobscot Lowland, Maine. *The Holocene* 27, 726-739.
- Mason, J.A., Jacobs, P.M., Guley, K.E., Reyerson, P., **Hanson, P.R.**, 2016. Parent Material Influence on Soil Response to Vegetation Change, Southeastern Minnesota, U.S.A. *Geoderma* 275, 1-17.
- Miao, X., Wang, H., **Hanson, P.R.**, Mason, J.A., Liu, X., 2016. Using both OSL and radiocarbon dates to constrain the time of soil development, *Geoderma* 261, 93-100.
- Wang, T., Istanbuluoglu, E., Wedin, D., **Hanson, P.R.**, 2015. Impacts of revegetation on the temporal evolution of soil saturated hydraulic conductivity in a vegetated sand dune area. *Environmental Earth Sciences* 73, 7651-7660.
- Hanson, P.R.**, Mason, J.A., Jacobs, P.M., Young, A.R., 2015. Evidence for Bioturbation of Luminescence Signals in Eolian Sand on Upland Ridgetops, Southeastern Minnesota, USA, *Quaternary International* 362, 108-115.
- Arbogast, A.F., Luehmann, M.D., Miller, B.A., Adams, K.M., Wernette, P.A., Waha, J.D., Oneil, G.A., Tang, Y., Boothroyd, J.J., Babcock, C.R., **Hanson, P.R.**, Daly, T.A., Young, A.R., 2015. Late-Pleistocene Paleowinds and Aeolian Sand Mobilization in North-Central Lower Michigan, *Aeolian Research* 16, 109-116.
- Dotterweich, M., Ivester, A.H., **Hanson, P.R.**, Larsen, D., Dye, D.H., 2014. Natural and human induced prehistoric and historical soil erosion and landscape development in

southwestern Tennessee, USA. *Anthropocene* 8, 6-24.

- Rawling, E., III, **Hanson, P.R.**, 2014, Dune Formation on Sandy Bay Barriers along Lake Michigan's Door Peninsula: The Importance of Increased Sediment Supply Following the Nipissing and Algoma High Lake Level Phases. In: Geological Society of America Special Publication 508 entitled Coastline and Dune Evolution along the Great Lakes, T.G. Fisher and E. Hansen (eds), p. 65-84.
- Fisher, T.G., Castenda, M.R., Krantz, D.E., Loope, W.L., Jol, H.M., Goble, R., Higley, M.C., DeWald, S., **Hanson, P.R.**, 2014, Recent origins of Sand Point initiated by a late Holocene transgression. In: Geological Society of America Special Publication 508 entitled Coastline and Dune Evolution along the Great Lakes, T.G. Fisher and E. Hansen (eds), p. 85-110.
- Putz, R.A., **Hanson, P.R.**, Young, A.R., 2013, Late Holocene history of dune activity along the Elkhorn River in northeastern Nebraska, *Great Plains Research* 23 (1), 11-24.
Manuscript won the Charles E. Bessey Award for the best natural sciences article in Great Plains Research in 2013.
- Carson, E.C., **Hanson, P.R.**, Attig, J.W., Young, A.R., 2012, Numeric control on the late-glacial chronology of the southern Laurentide Ice Sheet derived from ice-proximal lacustrine deposits, *Quaternary Research* 78, 583-589.
- Hanson, P.R.**, Korus, J.T., Divine, D.P., 2012, Three-dimensional hydrostratigraphy of the Platte River Valley near Ashland, Nebraska: Results from Helicopter Electromagnetic (HEM) mapping in the Eastern Nebraska Water Resources Assessment (ENWRA), Larson, D. (Ed.), *Conservation and Survey Division Bulletin 2 (New Series)*, 58 p.
- Jacobs, P.M., Mason, J.A., **Hanson, P.R.**, 2012, Loess mantle spatial variability and soil horizonation, Southern Wisconsin, USA, *Quaternary International* 265, 43-53.
- Halfen, A.F., Johnson, W.C., **Hanson, P.R.**, Woodburn, T.L., Young, A.R., Ludvigson, G.A., 2012, Late Holocene dune activity in the Hutchinson dunes, east-central Kansas, USA, *Aeolian Research* 5, 9-20.
- Loope, W.L., Loope, H.M., Goble, R.J., Fisher, T.G., Lytle, D.E., Legg, R.J., Wysocki, D.A., **Hanson, P.R.**, Young, A.R., 2012, Dunes across interior eastern Upper Michigan reflect early Holocene forest destruction concurrent with hydrologic closure of the Upper Great Lakes, *Geology* 40, 315-318.
- Mason, J.A., Swinehart, J.B., **Hanson, P.R.**, Loope, D.B., Goble, R.J., Miao, X., Schmeisser, R., 2011, Late Pleistocene dune activity in the central Great Plains, USA, *Quaternary Science Reviews* 30, 3858-3870.
- Attig, J.W., **Hanson, P.R.**, Rawling, J.E., III, Young, A.R., Carson, E.C., 2011, Optical ages indicate the southwestern margin of the Green Bay Lobe was at its maximum extent until about 18,500 years ago, *Geomorphology* 130, 384-390.
- Jacobs, P.M., Mason, J.A., **Hanson, P.R.**, 2011, Mississippi Valley Regional Source of Loess on the Southern Green Bay Lobe Land Surface, Wisconsin, *Quaternary Research* 75, 574-583.
- Joeckel, R.M., Wally, K.D., Ang Clement, B.J., **Hanson, P.R.**, Dillon, J.S., 2011, Low-temperature extrapedogenic acidic weathering of sulfidic shales and neoformation of aluminum-bearing minerals, eastern Nebraska, *Catena* 85, 253-266.
- Werner, C., Mason, J.A., **Hanson, P.R.**, 2011, Nonlinear connections between dune activity and climate in the High Plains, Kansas and Oklahoma, USA, *Quaternary Research* 75, 267-277.

- Blasi, A.M., Castineira Latorre, C., Del Puerto, L., Prieto, A.R., Fucks, E., De Francesco, C., **Hanson, P.R.**, Garcia-Rodriguez, F., Huarte, R., Carbonari, J., Young, A.R., 2010, Paleoambientes de la Cuenca media del Rio Lujan (Buenos Aires, Argentina) durante el ultimo periodo glacial (EIO 4-2), *Latin American Journal of Sedimentology and Basin Analysis* 17, 85-110.
- Arbogast, A.F., Bigsby, M.E., Devisser, M.H., Langley, S.A., **Hanson, P.R.**, Daly, T.A., Young, A.R., 2010, Reconstructing the age of coastal sand dunes along the northwestern shore of Lake Huron in Lower Michigan: Paleoenvironmental implications and regional comparisons, *Aeolian Research* 2, 83-92.
- Saunders, J.J., Grimm, E.C., Widga, C.C., Campbell, G.D., Curry, B.B., Grimley, D.A., **Hanson, P.R.**, McCullum, J.P., Oliver, J.S., Treworgy, J.D., 2010, "A New Land of the Eye:" Paradigms and proboscideans in the southern Great Lakes region, USA, *Quaternary International* 217, 175-187.
- Miao, X., **Hanson, P.R.**, Wang, H., Young, A.R., 2010, Sand Dune Age and Provenance in the Green River Lowland of Illinois, Upper Midwestern United States, *Quaternary Science Reviews* 29, 763-773.
- Hanson, P.R.**, Arbogast, A.F., Johnson, W.C., Joeckel, R.M., Young, A.R., 2010, Megadroughts and late Holocene dune activation at the eastern margin of the Great Plains, North-Central Kansas, USA, *Aeolian Research* 1, 101-110.
- Powell, L.A., Tyre, A.J., Hygnstrom, S.E., Wedin, D.A., **Hanson, P.R.**, Kuzila, M.S., Swinehart, J.B., 2009, Wilderness serendipity: how to plan and assess learning experiences during an experiential field course, *North American Colleges and Teachers of Agriculture Journal* 53, p. 56-61.
- Hanson, P.R.**, Joeckel, R.M., Young, A.R., Horn, J., 2009, Late Holocene Dune Activity in the Eastern Platte River Valley, Nebraska, *Geomorphology* 103, 555-561.
- Mason, J.A., Miao, X., **Hanson, P.R.**, Johnson, W.C., Jacobs, P.M., Goble, R.J., 2008, Loess record of the last Glacial-Interglacial transition on the northern and central Great Plains, *Quaternary Science Reviews* 27, 1772-1783.
- Rawling, J.E., III, **Hanson, P.R.**, Young, A.R., Attig, J.W., 2008, Late Pleistocene dune construction in the Central Sand Plain of Wisconsin, USA, *Geomorphology* 100, 494-505.
- Morgan, M.L., Matthews, V., Gutierrez, F., Thorson, J.P., Madole, R.F., **Hanson, P.R.**, 2008, From buttes to bowls: Repeated relief inversions in the landscape of the Colorado Piedmont, in Raynolds, R.G., ed., *Roaming the Rocky Mountains and Environs: Geological Field Trips: Geological Society of America Field Guide* 10, 203-216.
- Burkhart, P.A., Rawling, J.E. III, Livingston, J., **Hanson, P.R.**, Mahan, S., Benton, R., Heffron, E., Jahn, M., Anderson, T., Page, B., 2008, Late Pleistocene through Holocene Landscape Evolution of the White River Badlands, South Dakota, in Raynolds, R.G., ed., *Roaming the Rocky Mountains and Environs: Geological Field Trips: Geological Society of America Field Guide* 10, 235-248.
- Joeckel, R.M., Wally, K.D., Fischbein, S.A., **Hanson, P.R.**, 2007, Sulfate mineral paragenesis in Pennsylvanian rocks and occurrence of slavikite, Nebraska, USA, *Great Plains Research* 17, 17-33.
- Miao, X., Mason, J.A., Swinehart, J.B., Loope, D.B., **Hanson, P.R.**, Goble, R.J., Liu, X., 2007, A 10,000-year record of dune activity, dust storms, and drought in the central Great Plains, *Geology* 35, 119-122.

- Hanson, P.R.**, Mason, J.A. and Goble, R.J., 2006, The formation of fluvial terraces along Wyoming's Laramie Range as a response to late Pleistocene flooding events. *Geomorphology* 76, 12-25.
- Miao, X., Mason, J.A., Goble, R.J. and **Hanson, P.R.**, 2005, Loess-inferred dry climate and eolian activity in the early to mid-Holocene, central Great Plains, North America. *The Holocene* 15, 339-346.
- Hanson, P.R.**, Mason, J.A. and Goble, R.J., 2004, Episodic late Quaternary slope wash deposition as recorded in colluvial aprons, southeastern Wyoming. *Quaternary Science Reviews* 23, 1835-1846.
- Mason, J.A., Jacobs, P.M., **Hanson, P.R.**, Miao, X. and Goble, R.J., 2003, Sources and paleoclimatic significance of Holocene Bignell Loess, central Great Plains, U.S.A. *Quaternary Research* 60, 330-339.

Technical Reports, Book Chapters and Articles that were not Peer-Reviewed

- Joeckel, R.M., Reinier, C.L., **Hanson, P.R.**, Korus, J.T., Gilmore, T., Young, A.R., 2024. Physical Setting of the Sandhills in Maps, *in* Norby, M.M., Diamond, J., Sutherlen, A., Fritz, S.C., Hachiya, K., Norby, D.A., Forsberg, M., *The Nebraska Sandhills*, University of Nebraska Press, Lincoln, NE, 259 p.
- Mahan, S.A., Nelson, M.S., Rittenour, T.M., **Hanson, P.R.**, Rhodes, E., 2015, the 9th new World Luminescence Dating Workshop: Aim of the community and scope of the conference proceedings. *Quaternary International* 362, p. 1-2.
- Jacobs, P.M., Mason, J.A., **Hanson, P.R.**, 2012, Mississippi Valley Regional Source of Loess on the Southern Green Bay Lobe Land Surface, Wisconsin—Response to comments by Randall Schaetzl, *Quaternary Research* 78, 152-153.
- Blikre, L., Benn, D.W., Lee, D., **Hanson, P.R.**, 2010, Phase III data recovery excavations at the Cochran Site (13LE634) US Highway 61, Fort Madison Bypass Lee County, Iowa, Iowa Department of Transportation, Ames, Iowa, 235 p.
- Divine, D.P., Joeckel, R.M., Korus, J.T., **Hanson, P.R.**, Olafsen Lackey, S., 2009, Eastern Nebraska Water Resources Assessment (ENWRA): Introduction to a Hydrogeologic Study, University of Nebraska-Lincoln, Conservation and Survey Division Bulletin 1 (New Series), 32 p.

Digital Geologic Maps and Geologic Cross-Sections (Nebraska Quads can be found at <http://snr.unl.edu/data/geologysoils/STATEMAP/index.aspx>) (denotes map was internally peer-reviewed in the USGS)**

- Hanson, P.R.**, Nouth-Chea, N., Sanchez, D., Tran, J.T., Joeckel, R.M., 2025. Surficial geology of the Brule 7.5' Quadrangle, Nebraska. Conservation and Survey Division, School of Natural Resources.
- Hanson, P.R.**, Shrestha, N., Reinier, C.L. 2024. Surficial geology of the Belgrade SE 7.5' Quadrangle, Nebraska. Conservation and Survey Division, School of Natural Resources.
- Hanson, P.R.**, Shrestha, N., Girard, M., Joeckel, R.M., Reinier, C.L. 2024. Surficial geology of the Central City West 7.5' Quadrangle, Nebraska. Conservation and Survey Division, School of Natural Resources.

- Lundstrom, S.C., McBeth, J.L., Alexander, J., **Hanson, P.R.**, Mahan, S.A., 2024. Geologic map of the valley corridor of the Niobrara National Scenic River, Nebraska: U.S. Geological Survey Data Release [doi.org/10.5066/P1RVSXF4].
- Hanson, P.R.**, Reinier, C.L. 2023. Surficial geology of the Leshara 7.5' Quadrangle, Nebraska.
- Reinier, C.L., **Hanson, P.R.**, C.L. 2023. Surficial geology of the Richland 7.5' Quadrangle, Nebraska.
- Reinier, C.L., **Hanson, P.R.**, 2023. Surficial geology of the Mead 7.5' Quadrangle, Nebraska.
- Lundstrom, S.C., Cowman, T., **Hanson, P.**, Holbrook, J., Mahan, S., Moreno-Ward, A. Paces, J., 2022. Geologic map geodatabase of the valley corridor of the 59-mile reach of the Missouri National Recreational River, South Dakota, Nebraska and Iowa: Gavins Point Dam to North Sioux City. U.S. Geological Survey Data Release, <https://www.sciencebase.gov/catalog/item/624cb901d34e21f82765072b>
- Hanson, P.R.**, Reinier, C.L., Howard, L.M., Baker, E. and Carlson, C. 2022. Surficial geology of the Fremont West 7.5' Quadrangle, Nebraska.
- Hanson, P.R.**, Howard, L.M., 2019. Surficial geology of the Monroe 7.5' Quadrangle, Nebraska.
- Hanson, P.R.**, Larsen, A.K., Howard, L.M., 2018. Surficial geology of the Axtell East 7.5' Quadrangle, Nebraska.
- Young, A.R., **Hanson, P.R.**, Larsen, A.K., Howard, L.M., 2018. Surficial geology of the Edgar NW 7.5' Quadrangle, Nebraska.
- **Berry, M.E., Taylor, E.M., Slate, J.L., Paces, J.B., Hanson, P.R., Brandt, T.R., 2018. Geologic map of the Fort Morgan 7.5' quadrangle, Morgan County, Colorado. U.S. Geological Survey Scientific Investigations Map 3408, 2 sheets, scale 1:24,000. <https://doi.org/10.3133/sim3408>**
- **Berry, M.E., Taylor, E.M., Slate, J.L., Paces, J.B., Hanson, P.R., Brandt, T.R., 2018. Geologic map of the Weldona 7.5' quadrangle, Morgan County, Colorado. U.S. Geological Survey Scientific Investigations Map 3396, 1 sheet, scale 1:24,000. <https://doi.org/10.3133/sim3396>**
- Hanson, P.R.**, Young, A.R., Larsen, A.K., Howard, L.M., Dillon, J.S., 2017. Surficial Geology of the Fairmont 7.5 Minute Quadrangle, Nebraska.
- Young, A.R., **Hanson, P.R.**, Larsen, A.K., Howard, L.M., Dillon, J.S., 2017. Surficial Geology of the Exeter 7.5 Minute Quadrangle, Nebraska.
- Dillon, J.S., **Hanson, P.R.**, Larsen, A., Raymond, C., Howard, L., 2016. Surficial geology of the Kearney SW 7.5-minute quadrangle.
- **Berry, M.E., Slate, J.L., Paces, J.B., Hanson, P.R., and Brandt, T.R., 2015. Geologic map of the Masters 7.5' quadrangle, Weld and Morgan Counties, Colorado. U.S. Geological Survey Scientific Investigations Map 3334, 1 sheet, 1:24,000, <http://pubs.er.usgs.gov/publication/sim3344>.**
- **Berry, M.E., Slate, J.L., Hanson, P.R., and Brandt, T.R., 2015. Geologic map of the Orchard 7.5' quadrangle, Morgan County, Colorado. U.S. Geological Survey Scientific Investigations Map 3331, 1 sheet, 1:24,000, <http://dx.doi.org/10.3133/sim3331>.**
- Hanson, P.R.**, Bruihler, J., Howard, L.M., 2015. Surficial Geology of the Hershey East 7.5 Minute Quadrangle, Nebraska

- Young, A.R., **Hanson, P.R.**, Howard, L.M., 2015. Surficial Geology of the Fairfield 7.5 Minute Quadrangle, Nebraska
- Hanson, P.R.**, Dillon, J.S., Bruihler, J., Howard, L.M., 2014. Surficial Geology of the Kearney 7.5 Minute Quadrangle, Nebraska
- Young, A.R., Howard, L.M., **Hanson, P.R.**, Kuzila, M.S., 2014. Surficial Geology of the Crete North 7.5 Minute Quadrangle, Nebraska
- Dillon, J.S., **Hanson, P.R.**, Howard, L.M., 2013, Surficial Geologic Map of the Fordyce, Nebraska 7.5-Minute Quadrangle
- Young, A.R., **Hanson, P.R.**, Howard, L.M., 2013, Surficial Geologic Map of the Hershey West, Nebraska 7.5-Minute Quadrangle
- Korus, J.T., Divine, D.P., **Hanson, P.R.**, Dillon, J.S., 2012, Three Geologic Cross Sections across Portions of eastern Nebraska showing Quaternary Lithologic Units and Stratigraphy of Uppermost Bedrock. Conservation and Survey Division, Correlations and Cross Sections (CCS) 18-1, 16 p.
- Hanson, P.R.**, Young, A.R., Howard, L.M., 2012, Surficial Geologic Map of the Emerald, Nebraska 7.5-Minute Quadrangle
- Young, A.R., **Hanson, P.R.**, Howard, L.M., 2012, Surficial Geologic Map of the Gothenburg, Nebraska 7.5-Minute Quadrangle
- Dillon, J.S., **Hanson, P.R.**, Howard, L.M., 2012, Surficial Geologic Map of the Hartington, Nebraska 7.5-Minute Quadrangle
- Dillon, J.S., **Hanson, P.R.**, Howard, L.M., 2011, Surficial Geologic map of the Coleridge SE, Nebraska 7.5-Minute Quadrangle
- Young, A.R., **Hanson, P.R.**, Howard, L.M., 2011, Surficial Geologic Map of the North Platte West, Nebraska 7.5-Minute Quadrangle
- Young, A.R., **Hanson, P.R.**, Howard, L.M., 2010, Surficial Geologic Map and Interpretive Geological Cross-Section of the Schuyler, Nebraska 7.5-Minute Quadrangle
- Young, A.R., **Hanson, P.R.**, Howard, L.M., 2010, Surficial Geologic Map of the Denton, Nebraska 7.5-Minute Quadrangle
- Dillon, J.S., **Hanson, P.R.**, Young, A.R., Howard, L.M., 2010, Surficial Geologic map of the Coleridge, Nebraska 7.5-Minute Quadrangle
- Hanson, P.R.**, Young, A.R., Howard, L.M., 2009, Surficial Geologic Map and Interpretive Geological Cross-Section of the Duncan, Nebraska 7.5-Minute Quadrangle
- Dillon, J.S., **Hanson, P.R.**, Young, A.R., Howard, L.M., 2009, Surficial Geologic map of the Obert, Nebraska 7.5-Minute Quadrangle
- Hanson, P.R.**, Hooke, R. LeB., Kelley, A.R., 2008, Optically stimulated luminescence ages on sand dunes near Greenbush, Maine, in Hooke, R. LeB., Metcalfe, E., Wiesner, R., 2009, Surficial geology of the Greenbush Quadrangle, Maine. Maine Geological Survey Open File Report No. 09-1.
(<http://www.maine.gov/doc/nrimc/mgs/pubs/online/surficial/qc-greenbush-sidebar.pdf>)
- Hanson, P.R.**, Young, A.R., 2008, Surficial Geologic Map of the Silver Creek SE 7.5-Minute Quadrangle
- Dillon, J.S., **Hanson, P.R.**, Joeckel, R.M., Young, A.R., Kuzila, M.S., 2008, Surficial Geologic map of the Wynot 7.5-Minute Quadrangle
- Noe, D.C., Morgan, M.L., **Hanson, P.R.**, Keller, S.M., 2007, Geologic map of the Montrose East quadrangle, Montrose County, Colorado, Colorado Geological Survey Open-File

Report 07-02, CD-ROM

Hanson, P.R., Young, A.R., 2007, Surficial geologic map of the Columbus, Nebraska 7.5' Quadrangle

Hanson, P.R., Young, A.R., 2007, Surficial geologic map of the Columbus SW, Nebraska 7.5' Quadrangle

Hanson, P.R., Mason, J.A., 2003, Surficial Geologic Map of the Rogers, Nebraska 7.5' Quadrangle

Field Trip Guidebooks

Hallum, D., **Hanson, P.R.**, Tucker, S., Diffendal, R.F., Jr., 2020. Hydrogeology and geology of the lower North and South Platte Rivers of Nebraska. Conservation and Survey Division Guidebook No. 37, 44 pages.

Joeckel, R.M., Divine, D.P., **Hanson, P.R.**, Howard, L., 2017. Geology of northeastern Nebraska and environs: Cedar, Dakota, and Dixon Counties in Nebraska, and Plymouth and Woodbury County in Iowa. Conservation and Survey Division Guidebook No. 21, 65 p.

Jarrin, D., Aslan, A., Mahan, S., **Hanson, P.R.**, 2017. New age constraints on Late Pleistocene glacial outwash deposits near Ridgway, Colorado, northern San Juan Mountains. In: Karlstrom, K.E., Gonzales, D., Zimmerer, M.J., Heizler, M., Ulmer-Scholle, D.S. (Eds.), The Geology of the Ouray-Silverton Area. New Mexico Geological Society 68th Annual Fall Field Conference Guidebook, 179-186.

Dillon, J.S., **Hanson, P.R.**, Larsen, A., Bruhler, J., Raymond, C., 2016. Geology of the Platte River Valley near Kearney, Nebraska. Nebraska Conservation and Survey Division Guide Book 19, 23 p.

Mason, J.A. and Knox, J.C., with Attig, J.W., Faulkner, D.J., **Hanson, P.R.**, Jacobs, P.M., Jol, H., Kuchta, M., Loope, H., Rawling, J.E., Running, G., Stanley, K.E., Young, A.R., 2011, Late Quaternary Landscape Dynamics Beyond the Ice Margin in the Upper Mississippi Valley, Geological Society of America Annual Meeting Field Trip Guidebook, 77 p.

Hooke, R. LeB., **Hanson, P.R.**, 2010, Optically stimulated luminescence ages of sands from Penobscot River terraces and eolian dunes, 102nd New England Intercollegiate Geological Conference, Oct 1-3.

Rawling, J.E., **Hanson, P.R.**, Young, A., 2007, Preliminary optical luminescence ages from eolian sand in the Central Sand Plain of Wisconsin, Midwest Friends of the Pleistocene Field Trip Guidebook Supplement

Bettis, E.A., III, Mason, J.A., Swinehart, J.B., Miao, X.-D., **Hanson, P.R.**, Goble, R.J., Loope, D.B., Jacobs, P.M., Roberts, H.M., 2003, Cenozoic eolian sedimentary systems of the USA mid-continent. In D. Easterbrook (ed.), Quaternary Geology of the United States. Geological Society of America, Boulder, Colorado, pp. 195-218.

Grants Awarded

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2025-8/2027, "Geologic Mapping and Production of GEMs Compliant Geologic

Maps in Nebraska”, PI: **P.R. Hanson**, A.R. Young, K. Cameron, R.M. Joeckel, \$217,220.

United States National Park Service, 9/2025-8/2026, CESU GRPL Leadership, Coordination and Administrative Oversight for the Great Plains Cooperative Ecosystem Studies Unit, PI: **P.R. Hanson**, \$57,708.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2023-8/2025, “Geologic Mapping and Production of GEMs Compliant Geologic Maps in Nebraska”, PI: **P.R. Hanson**, A.R. Young, K. Cameron, R.M. Joeckel, \$203,497.

United States Geological Survey, 9/2024-8/2026, “Pre-Illionian Glacial Till Cooperative Grant”, PI: **P.R. Hanson**, R.M. Joeckel, \$109,999.

United States National Park Service, 9/2024-8/2025, CESU GRPL Leadership, Coordination and Administrative Oversight for the Great Plains Cooperative Ecosystem Studies Unit, PI: **P.R. Hanson**, \$16,200.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2023-8/2025, “Geologic Mapping and Production of GEMs Compliant Geologic Maps in Nebraska”, PI: **P.R. Hanson**, A.R. Young, K. Cameron, R.M. Joeckel, \$203,497.

United States National Park Service, 9/2023-8/2024, CESU GRPL Leadership, Coordination and Administrative Oversight for the Great Plains Cooperative Ecosystem Studies Unit, PI: **P.R. Hanson**, \$18,000.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2022-9/2023, “Geologic Mapping of the Belgrade SE, Central City West, and Hire SW 7.5-Minute Quadrangle, Nebraska”, PI: **P.R. Hanson**, A.R. Young, \$107,223.

United States National Park Service, 9/2022-9/2023, CESU GRPL Leadership, Coordination and Administrative Oversight for the Great Plains Cooperative Ecosystem Studies Unit, PI: **P.R. Hanson**, \$33,425.

Natural Resources Conservation Service, Soil Survey Information Production and Management, U.S. Dept. of Agriculture, 9/2022-9/2024, PI: **P.R. Hanson**, \$50,000.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2021-9/2022, “Geologic Mapping of the Leshara, Mead, Meadville and Richland 7.5-Minute Quadrangle, Nebraska”, PI: **P.R. Hanson**, R.M. Joeckel, \$153,302.

United States National Park Service, 9/2021-8/2022, CESU GRPL Leadership, Coordination and Administrative Oversight for the Great Plains Cooperative Ecosystem Studies Unit, PI: **P.R. Hanson**, \$29,800.

United States National Park Service, 12/2020-9/2021, CESU GRPL Leadership, Coordination and Administrative Oversight for the Great Plains Cooperative Ecosystem Studies Unit, PI: **P.R. Hanson**, \$13,500.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2020-9/2021, “Geologic Mapping of the Fremont West 7.5-Minute Quadrangle, Nebraska”, PI: **P.R. Hanson**, \$27,934.

Natural Resources Conservation Service, Soil Survey Information Production and Management, U.S. Dept. of Agriculture, 9/2018-9/2022, PI: **P.R. Hanson**, \$160,000.

Natural Resources Conservation Service, Scanning Aerial Imagery from Nebraska, U.S. Dept.

- of Agriculture, 9/2016-9/2021, PI: L.M. Howard, **P.R. Hanson**, \$50,000.
- United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2018-9/2019, “Geologic Mapping of the Crete South and Monroe 7.5-Minute Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, A.R. Young, \$48,564.
- United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2017-9/2018, “Geologic Mapping of the Axtell East, Edgar NW and Sparks 7.5-Minute Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, A.R. Young, \$43,093.
- United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2016-9/2017, “Geologic Mapping of the Exeter, Fairmont, and Norden 7.5-Minute Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, A.R. Young, \$44,140.
- Natural Resources Conservation Service, Digital video training materials for the soil survey program, U.S. Dept. of Agriculture, 9/2016-9/2019, PI: **P.R. Hanson**, \$12,000.
- Natural Resources Conservation Service, Quality of Soils from Selected Areas of the United States, U.S. Dept. of Agriculture, 9/2015-9/2017. Soil Quality in Selected Areas of the U.S., PI: **P.R. Hanson**, \$215,000.
- Natural Resources Conservation Service, Soil Survey Information Production and Management, U.S. Dept. of Agriculture, 9/2015-9/2018. Soil Survey Information Production and Management, PI: **P.R. Hanson**, \$206,700.
- United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2015-9/2016, “Geologic Mapping of the Kearney SW, Raymond and Sparks 7.5-Minute Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, A.R. Young, J.T. Korus, \$45,909.
- United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 9/2014-9/2015, “Geologic Mapping of the Cornell Dam, Du Bois, Fairfield and Hershey East 7.5-Minute Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, A.R. Young, J.T. Korus, M. Kuzila, \$65,623.
- Natural Resources Conservation Service, Scanning and Geo-Rectifying Historical Aerial Photographs from Nebraska, 9/2016-9/2018, PI: L. Howard, Co-PI: **P.R. Hanson**, \$100,000.
- United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 2013, “Geologic Mapping of the Crete North, Kearney, Scotia, and Table Rock 7.5-Minute Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, A.R. Young, J.T. Korus, M. Kuzila, \$72,636.
- United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 2012, “Geologic Mapping of the Fordyce, Gross, Hershey West and Naper 7.5-Minute Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, M. Kuzila, \$69,667.
- United States Geological Survey, Optically Stimulated Luminescence (OSL) Dating of Sediment Samples for the USGS, 2012, PI: **P.R. Hanson**, \$15522.
- United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 2011, “Geologic Mapping of the Emerald, Gothenburg, Hartington and Verdel Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, M. Kuzila, \$71,017.

United States Geological Survey Global Climate Change Initiative, 2010, Interdune stratigraphy in the Crescent Lake National Wildlife Refuge, Nebraska, PI: **P.R. Hanson**, \$65,000.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 2010, “Geologic Mapping of the Coleridge SE, Marty, North Platte West, and Ogallala Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, M. Kuzila, \$75,854.

Lower Platte North Natural Resource District, “Eastern Nebraska Water Resources Assessment”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, S. Lackey, 2009-2010, \$84,500.

Lower Platte South Natural Resource District, “Eastern Nebraska HEM Aquifer Mapping”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, J.T. Korus, 2009-2010, \$60,000.

Lower Platte North Natural Resource District, “Eastern Nebraska Water Resources Assessment”, PI’s: S. Lackey, **P.R. Hanson**, R.M. Joeckel, 2009-2010, \$17,080.

National Science Foundation, 2009-2010, Collaborative Research: Linking Loess Landforms and Eolian Processes (EAR 0921838), PI’s: J.A. Mason, **P.R. Hanson**, M. Sweeney, UNL Share = \$45,730.

National Science Foundation, 2010-2012, Collaborative Research: Dune Undergraduate Geomorphology and Geochronology (DUGG) Project in Wisconsin (EAR 0850525), PI’s: J.E. Rawling, III, **P.R. Hanson**, UNL Share = \$45,331.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 2009, “Geologic Mapping of the Coleridge, Denton, Lynch, and Schuyler Quadrangles, Nebraska”, PI: **P.R. Hanson**, co-PI’s: R.M. Joeckel, M. Kuzila, \$82,156.

National Science Foundation, 2008-2009, Collaborative Research: How Important is the Loess Mantle in Midwestern Soil Catena Evolution? (BCS 0751911), PI’s: J.A. Mason, P. Jacobs, **P.R. Hanson**, UN-L share = \$27,219.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 2008, “Geologic Mapping of the Duncan, Hallam, and Obert Quadrangles, Nebraska”, PI’s: **P.R. Hanson**, R.M. Joeckel, M. Kuzila, \$49,759.

Lower Platte North Natural Resource District, “Eastern Nebraska Water Resources Assessment”, PI: S. Lackey, co-PI’s: **P.R. Hanson**, R.M. Joeckel, 2007-2010, \$216,000.

UNL Office of Research Layman Award “Evaluating the Effects of Climate Change on Flood Magnitudes in the Central Great Plains: A Case Study from Two Nebraska Streams”, PI: **P.R. Hanson**, \$10,000, 2006-2008.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 2007, “Geologic Mapping of the Doniphan, Grand Island, Silver Creek SE, and Wynot Quadrangles, Nebraska”, PI’s: **P.R. Hanson**, R.M. Joeckel, \$68,053.

United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, 2006, “Geologic Mapping of the Columbus, Columbus SW, Cortland, and Firth Quadrangles, Nebraska”, PI’s: **P.R. Hanson**, R.M. Joeckel, J. B. Swinehart, \$56,378.

Myerly-Martin Prize for Outstanding Graduate Student, Department of Geosciences, University of Nebraska-Lincoln (2005)

University of Nebraska-Lincoln Department of Geosciences Fellowship (Summer 2000 and

2004)

National Science Foundation Doctoral Dissertation Improvement Grant, “Doctoral Dissertation Research: Precipitation Pulses and Geomorphic Response during Periods of Late Quaternary Climate Change, Western United States”, \$12,000, 2003-2005)
Geological Society of America Graduate Student Research Grant (2002)
Lincoln Gem and Mineral Association Grant (2001)
Center for Great Plains Studies Research Grant (2000)

Invited Presentations

- Hanson, P.R.**, 2024. Paleoenvironmental change and dune movement in response to prehistoric droughts in the Nebraska Sand Hills, Paul Sabatier University, Toulouse, France, October 2024.
- Hanson, P.R.**, 2024. Age, bedding and morphology of paired dunes in the Nebraska Sand Hills, University of Wisconsin-Eau Claire, April 2024.
- Hanson, P.R.**, 2023. Late Holocene dune activation in the Nebraska Sand Hills, USA. Heidelberg University, Heidelberg, Germany, April 2023.
- Hanson, P.R.**, 2019. Records of Quaternary climate change on the Central Great Plains, USA. Linyi University, Linyi, China, September 2019.
- Hanson, P.R.**, 2015. Dating fluvial sediments with luminescence: Improving our understanding of late Quaternary stream evolution. University of Maine, May 1, 2015.
- Hanson, P.R.**, 2015. Paleoclimate records of Holocene drought events from sand dunes on the Great Plains, University of Maine, April 30, 2015.
- Hanson, P.R.**, 2014, Records of extreme drought events from sand dunes in the central Great Plains. Center for Great Plains Studies Drought Symposium, April 1-4, Lincoln, Nebraska.
- Hanson, P.R.**, Korus, J.T., Divine, D., 2012, Three-dimensional hydrostratigraphy of the Platte River Valley near Ashland, Nebraska: Results from Helicopter Electromagnetic (HEM) mapping, Nebraska Geological Society, July 29, 2012.
- Carson, E.C., Attig, J.W., **Hanson, P.R.**, Young, A.R., 2011, Geochronology of late Wisconsin ice margin fluctuations of the southern Laurentide ice sheet, Geological Society of America Abstracts with Programs 43, no 5, p. 32.
- Joeckel, R.M., Korus, J.T., **Hanson, P.R.**, Divine, D., Olafsen Lackey, S., 2011, Integrated helicopter electromagnetic and borehole interpretation of aquifers in alluvial valleys and under dissected till plains, Nebraska, USA, Geological Society of America Abstracts with Programs 43, no 5, p. 224.
- Hanson, P.R.**, Korus, J.T., Divine, D., 2010, Three-dimensional hydrostratigraphy of the Platte River Valley near Ashland, Nebraska: Results from Helicopter Electromagnetic (HEM) mapping, Eastern Nebraska Groundwater Modeling Working Group, July 29, 2010.
- Hanson, P.R.**, Korus, J.T., Divine, D., 2010, Three-dimensional hydrostratigraphy of the Platte River Valley near Ashland, Nebraska: Results from Helicopter Electromagnetic (HEM) mapping, United States Geological Survey Geophysics Workshop (GW2593): Geophysical Methods to Assess Saline Groundwater Resources, Lincoln, NE, May 18, 2010.
- Hanson, P.R.**, 2010, Unraveling Nebraska’s Recent Geologic Past: Insight from the last 10

years of geologic research, Lincoln Gem and Mineral Club's 52nd Annual Show, Lincoln, Nebraska, April 3, 2010.

- Hanson, P.R.**, 2007, Geochronologic and Geomorphic evidence for stream terrace reoccupation along the Laramie Range, Wyoming, Geological Society of America Annual Meeting, Denver, Colorado, v. 39, p. 514.
- Hanson, P.R.**, 2006, Application of optical dating methods to alluvial and eolian sediments: Recent results from the University of Nebraska-Lincoln Luminescence Dating Laboratory, University of Iowa Department of Geoscience, October 13, 2006.
- Hanson, P.R.**, 2005, The stream power model and terrace genesis in the central Rocky Mountains, Geological Society of America 2005 Rocky Mountain Section Meeting, Abstracts with Programs 37 No. 6, p. 16.

Presentations (last five years)

- Hanson, P.R.**, Joeckel, R.M., 2026. Formation of Nebraska's Rainwater Basins by Eolian Deflation Between 25 and 38 ka. International Conference on Geomorphology, Christchurch, New Zealand, February 2026.
- Jol, H., Reeder, P., **Hanson, P.R.**, Lensky, I., 2026. Locating Holocaust mass burial sites: Using geomorphic models, subsurface imaging, and testimony at Skede, Latvia. International Conference on Geomorphology, Christchurch, New Zealand, February 2026.
- Hanson, P.R.**, Joeckel, R.M., 2025. OSL dating and stratigraphy indicate Nebraska's Rainwater Basins formed during the late Pleistocene. Nebraska Academy of Sciences Annual Meeting, April 2025.
- Ziemer, R., Jol, H., Fogarty, F., Olski, J., Rocha, T., Anderson, D., Heunisch, E., **Hanson, P.R.**, Lensky, I., Reeder, J., Reeder, P., 2025. Investigating a Baltic Sea foredune for a holocaust mass grave using ground penetrating radar in Skede, Latvia. Geological Society of America North Central Section Meeting, March 2025.
- Hanson, P.R.**, Joeckel, R.M., Nouth-Chea, N., 2024. OSL dating of Rainwater Basins in south-central Nebraska confirms development coeval with Late Pleistocene Loess Deposition. New World Luminescence Dating Workshop, June 2024, Reno, NV.
- Loope, H., Antinao, J.L., **Hanson, P.R.**, Huot, S., Jacobs, P., Grimley, D., 2024. Age and luminescence properties of Marine Isotope Stage 2 glaciofluvial and eolian deposits, White River drainage basin, Indiana, USA. New World Luminescence Dating Workshop, June 2024, Reno NV.
- Kreutzer, S., Schmidt, C., Kadereit, A., **Hanson, P.R.**, 2024. Tracking dune blowouts to constrain prehistoric droughts in the Nebraska Sand Hills (Great Plains, USA). European Geophysical Union General Assembly, April 2024, EGU 24-1804.
- Baldauf, P., Baker, G.S., Burkhart, P., Grimley, D.A., **Hanson, P.R.**, Renshaw, C., Nichols, J., 2024. Paleoenvironmental significance of the last Glacial Red Dog Loess, a Peoria Loess equivalent, White River Badlands, South Dakota, USA. Geological Society of America Abstracts with Programs Vol 56, No. 5.
- Mason, J.A., McDowell, T.M., Miao, X., **Hanson, P.R.**, Johnson, W.C., Xu, Z., Marin-Spiotta, E., 2023. Paleosols as essential evidence in dune field and loess records of Holocene environmental change. XIV International Symposium and Field Workshop

- on Paleopedology, Las Cruces, NM, USA, October, 2023.
- Solberg, J., Jol, H., **Hanson, P.R.**, Ju, F., 2023. Analysis of paired linear dune stratigraphy in the Nebraska Sand Hills utilizing ground penetrating radar. Geological Society of America Annual Meeting. GSA Abstracts with Programs 55, no. 6.
- Hanson, P.R.**, Reinier, C.L., Bruhler, J.C., Joeckel, R.M., 2023. Luminescence dating and alluvial history of the Platte River in Nebraska, USA. 17th International Luminescence and Electron Spin Resonance Dating Conference, Copenhagen, Denmark. June 2023.
- Mahan, S.A., Mead, J.I., Hanson, P.R., Wilkins, J., Holen, S.R., Jass, C.N., 2023. Age reassignment using luminescence dating for The Mammoth Site, Black Hills, South Dakota, USA. 17th International Luminescence and Electron Spin Resonance Dating Conference, Copenhagen, Denmark. June 2023.
- Schmidt, C., Halter, T., King, G., Hanson, P., Kreutzer, S., 2023. Zircon luminescence as a geochronological tool for (sub-) recent sediments. 17th International Luminescence and Electron Spin Resonance Dating Conference, Copenhagen, Denmark. June 2023.
- Loope, H.M., **Hanson, P.R.**, Antinao, J.L., Jacobs, P.M., Grimley, D.A., 2023. Last glacial maximum and late glacial eolian sand activity, east fork White River Basin, Indiana, USA. Geological Society of America North-Central Section Meeting, Grand Rapids, MI, May 2023.
- Katchcer, J., Jol, H.M., **Hanson, P.R.**, Reinier, C.L., 2023. Stratigraphic Analysis of Paired Vegetated Linear Dunes in the Nebraska Sand Hills Using Ground Penetrating Radar. Council on Undergraduate Research Annual Meeting, Eau Claire, WI, April 2023.
- Hanson, P.R.**, Reinier, C.L., Bruhler, J.C., Joeckel, R.M., 2022. Dating the Platte: Luminescence Geochronology of the Alluvial History of an Iconic Braided Stream. New World Luminescence Dating Workshop, Palisade, CO. October 2022.
- Schmidt, C., Halter, T., King, G., Kreutzer, S., **Hanson, P.R.**, 2022. Zircon luminescence as a geochronological tool for (sub)-recent sediments—First results. Swiss Geoscience Meeting, Lausanne, Switzerland, November 2022.
- Hanson, P.R.**, Reinier, C., Joeckel, R.M., Turk, J., 2022. Stratigraphy and geochronology of the Todd Valley, an abandoned segment of the Platte River Valley, eastern Nebraska. Geological Society of America Annual Meeting, Denver, CO.
- Hanson, P.R.**, Reinier, C., Joeckel, R.M., Bruhler, J., Young, A.R., 2022. Late Quaternary evolution of an iconic braided stream: Dating the alluvial fill of the Platte River, Nebraska, USA. 10th International Association of Geomorphologists Conference, Coimbra, Portugal, September, 2022.
- Miao, X., Ee, C., Xu, S., Wang, Q., **Hanson, P.R.**, Chen, H., Shi, Y., 2022. Age and source of coastal loess in the Shandong Peninsula, Bohai Sea, China. 10th International Association of Geomorphologists Conference, Coimbra, Portugal, September, 2022.
- Joeckel, R.M., **Hanson, P.R.**, Korus, J.T., 2022. The grain of the plains remains: Widespread northwest-southeast ridgelines and associated oriented landforms, northern interior Plains, USA. 10th International Association of Geomorphologists Conference, Coimbra, Portugal, September, 2022.

Courses Taught

NRES 115 Introduction to Environmental Science (Fall, 2023, 2024, 2025)

GEOG 155 Introduction to Physical Geography (Spring 2009; Summer 2009; Fall, 2009; Spring 2010; Fall 2010; Spring 2011; Spring 2012; Fall 2012; Spring 2013-21; Fall 2025)

GEOG 491/898 Field Tour of Great Plains and Rocky Mountains (Summer 2012, 2013, 2014)

NRES 492 Puerto Rico Field Course (Spring 2009, 2011, 2012, 2013; 2019; 2020, 2022, 2024)

NRES 492 Minnesota Boundary Waters Field Course (Summers 2007 & 2008)

NRES 891 Seminar in Natural Resources, Presentation Focus (Fall, 2007)

NRES 498/898 Special Topics: Luminescence Dating Applications (Fall, 2016)

Professional Activities and Service

Professional Memberships

American Association for the Advancement of Science (AAAS) (Oct 2024-present)

Geological Society of America (1998-present)

Fellow of the Center for Great Plains Studies (2006-present)

Gamma Theta Upsilon (2017-present)

Nebraska Geological Society (2017-present)

Nebraska Society of Professional Soil Scientists (2017-present)

University of Nebraska-Lincoln Service

Chair, SNR Promotion and Tenure Committee, Aug 2023-June 2025

Member, SNR Graduate Committee, 2022-present

Member, SNR Wellness Committee, Fall 2019-present

Lead, Environmental Science Program, 2022-2024

Member, search committee for 2 Human-Environment Geography faculty positions, Fall 2018

Member, search committee for UNL Geography Program Director, Fall 2016 & Fall 2017

Chair, search committee for School of Natural Resources Recruitment Coordinator, August 2016

Chair, search committee for Geography Program Professor of Practice, May 2016

Member, search committee for Pedologist Faculty Position in the School of Natural Resources, May 2016

Chair, search committee for School of Natural Resources Communication Associate, March 2016

Chair, search committee for School of Natural Resources Administrative Associate, March 2015

Member, School of Natural Resources Faculty Advisory Committee, 2009-2012

Member, School of Natural Resources Safety and Facilities Committee, 2006-2009

Member, School of Natural Resources Research Committee, 2007-2010

Service to the Scientific Community

Served as Vice-Chair of the North-Central Section of the Geological Society of America's Meeting held in Lincoln, Nebraska in April 2014

Served as a Guest Editor for conference proceedings from the 9th New World Luminescence Dating Workshop that were published in the Journal *Quaternary International* in 2014.

I was nominated to and served on the North-Central Section of the Geological Society of America Management Board which serves ~ 3,600 members (2012-2015).

Meetings/Events Hosted

Hosted Region V Soil Judging competition in Lincoln, Nebraska, October 9-14, 2016.

Hosted the 11th New World Luminescence Dating Workshop in Lincoln, Nebraska, May 19-21, 2016.

Served as Vice-Chair of the North-Central Section of the Geological Society of America's Meeting held in Lincoln, Nebraska in April 2014

Short Courses Taught/Field Trips Lead

Co-lead field trip on the geology and environmental science of the Nebraska Sand Hills and loess hills near North Platte, Nebraska for the Nebraska Academy of Sciences, May 2024

Co-lead field trip on the geology of the Platte River Valley near North Platte, October 2020

Co-lead field trip on the geology of northeastern Nebraska and surroundings. October 2018.

Co-taught Range Management Short Course in Chadron, Nebraska to ~ 35 professionals, June 20-21, 2016.

Co-lead field trip on the surficial geology of the Kearney, NE area for the Nebraska Geological Society on March 19, 2016.

Co-lead 2014 Southeast Friends of the Pleistocene field trip in the Chickasaw Bluffs region of Tennessee.

Co-lead geological history of the Platte River near Columbus, NE for the Nebraska Geological Society on June 7, 2008.

Co-lead short course and field trip entitled Eolian Sediments for Soil Scientists to Natural Resources Conservation Service employees on March 9-10, 2007

Co-lead two day short course on geomorphology for soil scientists for Natural Resources Conservation Service employees on May 17 & 18, 2004.

Other Activities

I was invited to and conducted research as part of my dissertation at the Nordic Laboratory for Luminescence Dating at the University of Aarhus in Roskilde, Denmark from February to April 2005.

Attended the UNL Winter Interim Teaching Workshop on Blended Learning Techniques, January 10, 2014.

Graduate Students Supervised

Aaron Young (MS, 2008), Rebecca (Putra) Young (MS, 2011), Gabrielle Tegeder (PhD,

2015), Jacob Bruihler (MA, 2016), Christian Cruz (MA, 2017), Josh Gates (MS, 2018), Ashley Larsen (MA, 2018), Gosia Mahoney (co-advised, MS, 2018), Gosia Mahoney (co-advised, PhD, expected 2025), James Benes (PhD, expected 2025).

Collaborators

Paul Baldauf (Nova Southeastern University), Eric Carson (Wisconsin Geological and Natural History Survey), Tim Fisher (U. of Toledo), Peter M. Jacobs (U. of Wisconsin-Whitewater), Robert M. Joeckel (U. of Nebraska), Bill Johnson (U. of Kansas), Harry Jol (Univ. of Wisconsin-Eau Claire), Sebastian Kreutzer (Heidelberg University), Henry Loope (Indiana State Geological Survey), Shannon Mahan (USGS), Rolfe Mandel (U. of Kansas), Joseph A. Mason (U. of Wisconsin-Madison), Xiadong Miao (Henan University), Donatas Pupienis (Vilnius University), Vincent Regard (Toulouse University), Christoph Schmidt (Lausanne University), Mark Sweeney (U. of South Dakota).