

1. R. M. (Matt) Joeckel: abbreviated curriculum vitae

2. Education

1990-1993: Ph.D. (major: Geology), University of Iowa Department of Geology. Graduated: May 1993.

1991-1992: Independent study courses in Agronomy, Iowa State University (exchange program).

1988-1990: Graduate study in Geology, Zoology, and Soil Science, University of Florida.

1986-1988: M. S. (major: Geology; minor: Biological Sciences), University of Nebraska-Lincoln Department of Geology. Graduated: May 1988.

1985-86: Graduate study in Geology, Systematics and Ecology, and Geography, University of Kansas.

1981-85: B. S. (major: Geology), University of Nebraska-Lincoln. Graduated with Distinction: May 1985.

3. Current and Previous Positions (past 10 yrs. only)

Research

July 2014-present; State Geologist and Associate Director for Conservation and Survey, also Professor, School of Natural Resources, IANR, and Department of EAS (30% joint appointment), UN-L; Curator of Geology at University of Nebraska State Museum.

July 2010-July 2014: Professor, Conservation and Survey Division, School of Natural Resources, IANR, and Department of EAS (30% joint appointment); from 2011, Curator of Geology at University of Nebraska State Museum.

July 2007-present: Associate Professor, Conservation and Survey Division, School of Natural Resources, IANR, and Department of Geosciences (30% joint appointment).

July 2006-July 2007: Associate Professor and Research Geologist, Conservation and Survey Division, School of Natural Resources.

August 2000-July 2006: Assistant Professor and Research Geologist, Conservation and Survey Division, School of Natural Resources.

Teaching

December 2012-present: Teach GEOL 450/850 and, occasionally, GEOL 495/895 in Department of EAS.

September 2007-December 2012: Teach GEOL 100, GEOL 101, GEOL 110, GEOL 450/850 in Department of EAS.

January 2005-May 2008: Taught NRES 477/877 in SNR.

4. Selected recent grants (past 5 yrs. only)

2017-2018: Geologic Mapping Missouri National Recreational River, Department of the Interior-National Park Service, \$98,549.00, 2017-2018, Principal Investigator.

2017-2018: Nebraska Basin CarbonSAFE, Battelle Memorial Institute, \$116,237, 2017-2018, Investigator.

2017-2020: Nebraska GeoCloud, Lower Platte South NRD, \$264,014, 2017-2021, Investigator.

2017-2019: National Groundwater Monitoring Network, U.S. Geological Survey, \$29,962, 2017-2019, Investigator

2017-2018: Nebraska Statemap 2017, U.S. Geological Survey, \$43,093, 2017-2018, Investigator.

2016-2017: Geologic Mapping Missouri National Recreational River, Department of the Interior-National Park Service, \$98,549, 2016-2017, Principal Investigator.

2016: Geologic Mapping in Nebraska, United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, \$44,140 FY 2016-2017, Investigator.

2016: CSD NGWM Network. Department of the Interior, U.S. Geological Survey. \$42,387 FY 2016-2017, Investigator.

- 2015: Geologic Mapping in Nebraska, United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, \$45,909 FY 2015-2016, Investigator.
- 2014: Geologic Mapping in Nebraska, United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, \$45,909 FY 2015-2016, Investigator.
- 2013: Geologic Mapping in Nebraska, United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, \$65,623 FY 2013-2014, Investigator.
- 2012: Geologic Mapping in Nebraska, United States Geological Survey STATEMAP Cooperative Geologic Mapping Program, \$72,636 FY 2013-2014, Investigator.
- 2012-2015: Nebraska Water Leaders Academy, Nebraska State Irrigation Association, \$21,302, Investigator.

5. Awards and Memberships

- 1999: Vice President for Academic Affairs Distinguished Professorship, Bellevue University.
- 1993: SEPM (Society for Sedimentary Geology) Excellence in Oral Presentation Award.
- 1993: subsequent grant to 1987-1988 Myerly-Martin Prize, Department of Geology, University of Nebraska-Lincoln.
- 1991: SEPM (Society for Sedimentary Geology) Promising Young Geoscientist Award.
- 1990: Romer Prize, 50th Annual Meeting, Society of Vertebrate Paleontology.
- 1989: Grinter Scholarship, University of Florida.
- 1989: American Federation of Mineralogical Societies Scholarship.
- 1988: 1987-1988 Myerly-Martin Prize, Department of Geology, University of Nebraska-Lincoln.
- 1988: Best student paper, 22nd Annual Meeting, North-Central Section, Geological Society of America.
- 1988: Best student paper given in departmental seminar, Department of Geology, University of Nebraska-Lincoln.
- 1987: Best student paper given in departmental seminar, Department of Geology, University of Nebraska-Lincoln.
- 1987: Yatkola-Edwards Research Grant, Nebraska Geological Society.
- 1986-88: Belfer Fellowship, Department of Geology, University of Nebraska-Lincoln.
- 1985: Honorable Mention, National Science Foundation Graduate Fellowships.
- 1984: Field Camp scholarship, Department of Geology, University of Nebraska-Lincoln.
- 1983: Green Memorial Scholarship, Department of Geology and State Museum, University of Nebraska-Lincoln.
- 1981-85: Geology Scholarship, Department of Geology, University of Nebraska-Lincoln.
- 1981-82: David Scholarship, University of Nebraska-Lincoln.

Member--Geological Society of America

Member--Nebraska Geological Society

6. Publications

Published peer-reviewed journal articles:

- Joeckel, R.M., Ludvigson, G.A., and Kirkland, J.I., 2017. Lower Cretaceous paleo-Vertisols and sedimentary interrelationships in stacked alluvial sequences, Utah, USA. *Sedimentary Geology*, 361, 1-24.
- Korus, J.T., Joeckel, R.M., Divine, D.P., and Abraham, J.D., 2017. Three-dimensional architecture and hydrostratigraphy of cross-cutting buried valleys using airborne electromagnetics, glaciated Central Lowlands, Nebraska, USA. *Sedimentology* 64: 553-581.
- Joeckel, R.M., Tucker, S.T., and McMullin, J.D., 2016. Morphosedimentary features from a major flood on a small, lower-sinuosity, single-thread river: The unknown quantity of

- overbank deposition, historical-change context, and comparisons with a multichannel river. *Sedimentary Geology* 343:18-37.
- Sweeney, M.R., Zlotnik, V.A., Joeckel, R.M., and Stout, J.E., 2016. Geomorphic and hydrologic controls of dust emissions during drought from Yellow Lake playa, West Texas, USA. *Journal of Arid Environments* 133: 37-46.
- Joeckel, R.M., Tucker, S.T., and Fielding, C.R., 2015. Sedimentological effects and stratigraphic implications of a rare, high-stage flow in an evolving, braided to anabranching stream with riparian woodland. *Sedimentary Geology* 325, 71-89.
- Ludvigson, G.A., Joeckel, R.M., Murphy, L.R., Stockli, D.F., González, L.A., Suarez, C.A., Kirkland, J.I., and Al-Suwaidi, A., 2015, The emerging terrestrial record of early Cretaceous global change. *Cretaceous Research* 56, 1-24.
- Fielding, C.R., and Joeckel, R.M., 2015. Recognition of tidal-bore deposits in the rock record: towards a facies model. *Journal of Sedimentary Research* 85, 118-123.
- Burberry, C.M., Joeckel, R.M., Korus, J.T., 2015, Post-Mississippian tectonics of the Nemaha Tectonic Zone and Mid-Continent Rift System, SE Nebraska and N Kansas. *The Mountain Geologist*, 52, 47-73.
- Joeckel, R.M., Wooden, S.R., Jr., Korus, J.T., and Garbisch, J.O., 2014. Architecture, heterogeneity, and origin of late Miocene fluvial deposits hosting the most important aquifer in the Great Plains, USA. *Sedimentary Geology*, v.311, 75-95.
- Joeckel, R. M., and Tucker, S.T., 2013. Exceptionally well-preserved latest Miocene (Hemphillian) rodent burrows from the eastern Great Plains, United States, and a review of the burrows of North American rodents. *Palaios*, v. 11, p. 793-834. *NB: this paper was actually published in 2014, but journal assigned previous year because of processing delays.*
- Zhang, L., Fang, J., and Joeckel, R. M., 2013, Microbial biomass and community structure in alkaline lakes of the Nebraska Sand Hills, USA. *Chemical Geology*, v. 356, p. 171-180.
- Joeckel, R.M., and Korus, J.T., 2012, Bayhead delta interpretation of an Upper Pennsylvanian sheetlike sandbody and the broader understanding of transgressive deposits in cyclothems. *Sedimentary Geology*, v. 216, p. 15-28.
- Horn, J.D., Joeckel, R.M., and Fielding, C.R., 2012, Progressive abandonment and planform changes of the central Platte River in Nebraska, central USA, over historical timeframes. *Geomorphology*, v. 139-140, p. 372-383.
- Horn, J.D., Fielding, C.R., and Joeckel, R.M., 2012, Revision of Platte River alluvial facies model through observations of extant channels and barforms, and subsurface alluvial valley fills. *Journal of Sedimentary Research*, v. 82, p. 72-91.
- Joeckel, R.M., Wally, K.D., Ang Clement, B. J., Hanson, P.R., Dillon, J.S., and Wilson, S.K., 2011, Low-temperature acidic weathering of sulfidic shales and neof ormation of aluminum-bearing minerals, Eastern Nebraska, USA. *Catena*, v. 85, p. 253-266.
- Antia, J., Fielding, C.R., and Joeckel, R.M., 2011. Multiple cycles of wave-dominated estuarine deposits in low-accommodation settings, Cretaceous J sandstone, northwestern Nebraska. *AAPG Bulletin* v. 95, p. 1227-1256.
- Mason, J.A., Greene, R.S.B., and Joeckel, R.M., 2011. Laser diffraction analysis of the disintegration of aeolian sedimentary aggregates in water. *Catena*, v. 87, p. 107-118.
- Ludvigson, G.A., Joeckel, R.M., Gonzalez, L.A., Gulbranson, E.L., Rasbury, E.T., Hunt, G.J., Kirkland, J.I., and Madsen, S., 2010, Correlation of Aptian-Albian Carbon Isotope Excursions in Continental Strata of the Cretaceous Foreland Basin of eastern Utah. *Journal of Sedimentary Research*, v. 80, p. 955-974.
- Ludvigson, G.A., Witzke, B.J., Joeckel, R.M., Ravn, R.L., Phillips, P.L., Gonzalez, L.A., Brenner, R.L., 2010. New insights on the sequence stratigraphic architecture of the Dakota Formation in Kansas-Nebraska-Iowa from a decade of sponsored research activity. *Kansas*

- Geological Survey Current Research in Earth Sciences, Bulletin 25, part 2. p. 1-35 [URL <http://www.kgs.ku.edu/Current/2010/Ludvigson/index.html>].
- Ludvigson, G.A., Witzke, B.J., Joeckel, R.M., Ravn, R.L., Phillips, P.L., Gonzalez, L.A., Brenner, R.L., 2010. New insights on the sequence stratigraphic architecture of the Dakota Formation in Kansas-Nebraska-Iowa from a decade of sponsored research activity. Kansas Geological Survey Current Research in Earth Sciences, Bulletin 258, part 2. p. 1-3.
- 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*, v. 1, p. 101-110.
- Hanson, P.R., Joeckel, R.M., Young, A.R., and Horn, J., 2009, Late Holocene dune activity in the Eastern Platte River Valley, Nebraska. *Geomorphology*, v. 103, p. 555-561.
- Fischbein, S.A., Joeckel, R.M., and Fielding, C.R., 2009, Fluvial-estuarine reinterpretation of large, isolated sandstone bodies in epicontinental cyclothem, Upper Pennsylvanian, northern Midcontinent, USA, and their significance for understanding late Paleozoic sea-level fluctuations. *Sedimentary Geology*, v. 216, p. 15-28.
- Joeckel, R.M., 2008, Enigmatic structures in an Upper Pennsylvanian (Kasimovian) marine limestone. *Palaios*, v. 23, p. 833-847.
- Joeckel, R.M., and Henebry, G.M., 2008, Channel and island change in the lower Platte River, Eastern Nebraska, USA: 1855-2005. *Geomorphology*, v. 102, p. 407-418.
- Korus, J.T., Kvale, E.P., Eriksson, K.A., and Joeckel, R.M., 2008, Compound paleovalley fills in the Lower Pennsylvanian New River Formation, West Virginia, USA. *Sedimentary Geology*, v. 20, p. 15-26.
- Gao, S.S., Niemi, T.M., Black, R.A., Liu, K.H., Anderson, R.R., Joeckel, R.M., Busby, R.W., and Taber, J. 2008. Rationale for a permanent seismic network in the U.S. Central Plains utilizing U.S. Array. *Eos*, v. 89, p.85.
- Joeckel, R.M., Loope, H.M., Wally, K.D., and Hellerich, J.E., 2007, Late Cenozoic geomorphology of a bedrock-dominated landscape adjacent to the Laurentide glacial limit, Southeastern Nebraska, USA. *Zeitschrift für Geomorphologie*, v. 51, p. 469-486.
- Joeckel, R.M., Wally, K.D., Fischbein, S.A., and Hanson, P.R., 2007, Sulfate mineral paragenesis in Pennsylvanian rocks and the occurrence of slavikite in Nebraska. *Great Plains Research*, v. 17, p. 17-34.
- Joeckel, R.M., Nicklen, B.L., and Carlson, M.P., 2007, Low-accommodation, eustasy-dominated, coarse-clastic sediment apron alongside a basement uplift, Pennsylvanian of Midcontinent North America. *Sedimentary Geology*, v. 197, p. 165-187.
- Mason, J.A., Joeckel, R.M., and Bettis, E.A., 2007, Middle to Late Pleistocene loess record in eastern Nebraska, USA, and implications for the unique record of Oxygen Isotope Stage 2. *Quaternary Science Reviews*, v. 26, p. 773-792.
- Phillips, P.L., Ludvigson, G.A., Joeckel, R.M., González, L.A., Brenner, R.L., and Witzke, B.J., 2007, Sequence stratigraphic controls on synsedimentary cementation and preservation of dinosaur tracks: Examples from the lower Cretaceous (upper Albian) Dakota Formation, Southeastern Nebraska, U.S.A. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 246, p. 367-389.
- Gröcke, D.R., Ludvigson, G.A., Witzke, B.L., Robinson, S.A., Joeckel, R.M., Ufnar, D. F., Ravn, R.L., 2006, Recognizing the Albian-Cenomanian (OAE1d) sequence boundary using plant carbon isotopes: Dakota Formation, Western Interior Basin, USA. *Geology*, v. 34, p. 193-196.
- Gosselin, D.C., Klawer, L.M., Joeckel, R.M., Harvey, F.E., and Warren, K. J., 2006, Arsenic in rural public water supplies, Nebraska, USA. *Great Plains Research*, v. 16, p. 137-148.
- Burbach, M.E., and Joeckel, R.M., 2006, A delicate balance: Rainfall and groundwater in Nebraska during the 2000-2005 drought. *Great Plains Research*, v. 16, p. 5-16.

- Fang, J., Chan, O., Joeckel, R.M., Huang, Y., Wang, Y., Bazylnski, D.A., Moorman, T. B., and Ang Clement, B. J., 2006, Biomarker analysis of microbial diversity in sediments of a saline groundwater seep in Nebraska. *Organic Geochemistry*, v. 37, p. 912-931.
- Joeckel, R.M., Ang Clement, B., and Van Fleet, L.R., 2005, Sulfate mineral crusts, pyrite weathering, and acid rock drainage in the Dakota Formation and Graneros Shale (Cretaceous), Jefferson County, Nebraska. *Chemical Geology* v. 215, p. 433-452.
- Joeckel, R.M. and Ang Clement, B J., 2005, Soils, Surficial Geology, and Geomicrobiology of Saline-Sodic Wetlands, North Platte River Valley, Nebraska, USA. *Catena* v. 61, p. 63-101.
- Feldman, H.R., Franseen, E.K., Joeckel, R.M., and Heckel, P.H., 2005, Impact of longer-term modest climate shifts on architecture of higher-frequency sequences (cyclothems), Pennsylvanian of Mid-continent USA. *Journal of Sedimentary Research*, v. 75, p. 350-368.
- Joeckel, R.M., and Diffendal, R.F., Jr., 2004, Geomorphic and environmental change around a large, aging reservoir: Lake C.W. McConaughy, western Nebraska, USA. *Environmental and Engineering Geoscience* v. 10, p. 69-90.
- Joeckel, R.M., Cunningham, J.M., Corner, R.G., Brown, G.W., Phillips, P.L., and Ludvigson, G.A., 2004, Late Albian dinosaur tracks from the cratonic (eastern) margin of the Western Interior Seaway, Nebraska, USA. *Ichnos* v. 11, p. 275-284.
- Brenner, R.L., Ludvigson, G.A., Witzke, B.L., Phillips, P.L., Ufnar, D.F., González, L.A., Joeckel, R.M., Goettmoeller, A., and Shirk, B.R., 2003, Aggradation of gravels in tidally influenced systems: upper Albian (Lower Cretaceous) on the cratonic margin of the North American Western Interior foreland basin. *Cretaceous Research* v. 24, p.439-449.
- Joeckel, R.M., Hunt, R.M., Jr., Peigne, S., and Skolnick, R. I., 2002, The auditory region and nasal cavity of Oligocene Nimravidae (Mammalia: Carnivora). *Journal of Vertebrate Paleontology* v. 22, p. 830-847.
- Loope, David B., Rowe, Clinton M., and Joeckel, R. Matthew, 2001, Annual monsoon rains recorded by Jurassic dunes. *Nature* v. 412, p.64-66.
- Driese, S.G., Mora, C.I., Stiles, C.A., Joeckel, R.M., and Nordt, L.C., 2000, Mass-balance reconstruction of a modern Vertisol: implications for interpreting the geochemistry and burial alteration of paleo-Vertisols. *Geoderma* v. 95, p.179-204.
- Brenner, R.L., Ludvigson, G.A., Witzke, B.J., Zawistoski, A.N., Kvale, E.P., Ravn, R.L., and Joeckel, R.M., 2000, Late Albian Kiowa-Skull Creek marine transgression, lower Dakota Formation, eastern margin of western interior seaway, U.S.A. *Journal of Sedimentary Research* v. 70, p. 868-878.
- Joeckel, R.M., and Ang-Clement, B.J., 1999, Surface features of the Salt Basin of Lancaster County, Nebraska: Reconnaissance of inland sabkhas at the subhumid eastern margin of the Great Plains, USA. *Catena* v. 34, p. 243-275.
- Joeckel, R.M., 1999, Paleosol in Galesburg Formation (Kansas City Group, Upper Pennsylvanian), northern Midcontinent, U.S.A.: Evidence for climate change and mechanisms of marine transgression. *Journal of Sedimentary Research* v. 69, p. 720-737.
- Joeckel, R.M., 1998, Unique frontal sinuses in fossil and living Hyaenidae (Mammalia, Carnivora): Description and interpretation. *Journal of Vertebrate Paleontology* v. 18, p. 627-639.
- Joeckel, R.M., Bond, H.W., and Kabalka, G.W., 1997, Internal anatomy of the snout and paranasal sinuses of *Hyaenodon* (Mammalia, Creodonta). *Journal of Vertebrate Paleontology* v. 17, p. 440-446.
- Joeckel, R.M., and Stavas, J.M., 1996, Basicranial anatomy of *Syndyoceras cooki* (Artiodactyla, Protoceratidae) and the need for a reappraisal of tylopod relationships. *Journal of Vertebrate Paleontology* v. 16, p.320-327.
- Joeckel, R.M., and Stavas, J.M., 1996, New insights into the cranial anatomy of *Barbourofelis fricki* (Mammalia, Carnivora), the last of the Nimravidae. *Journal of Vertebrate Paleontology* v. 16, p.585-591.

- Joeckel, R.M., 1995, Paleosols below the Ames Marine Unit (Upper Pennsylvanian, Virgilian, Conemaugh Group) in the Appalachian Basin, U.S.A.: variability on an ancient depositional landscape. *Journal of Sedimentary Research* v. A65, p. 393-407.
- Joeckel, R.M., 1995, Virgilian (Upper Pennsylvanian) Paleosols in the Upper Lawrence Formation (Douglas Group) and in the Snyderville Shale Member (Shawnee Group, Oread Formation) of the Northern Midcontinent, U.S.A.: Pedologic Contrasts in a Cyclothem Sequence. Reply to Response by H. Feldman and A. Archer. *Journal of Sedimentary Research* v. A65, p. 714-718.
- Joeckel, R.M., 1995, Tectonic and paleoclimatic significance of a Locally Prominent Upper Pennsylvanian (Virgilian/Stephanian) weathering profile, Iowa and Nebraska, U.S.A. *Palaeogeography, Palaeoclimatology, Palaeoecology* v. 118, p.159-179.
- Joeckel, R.M., 1994, Virgilian (Upper Pennsylvanian) Paleosols in the Upper Lawrence Formation (Douglas Group) and in the Snyderville Shale Member (Shawnee Group, Oread Formation) of the Northern Midcontinent, U.S.A.: Pedologic Contrasts in a Cyclothem Sequence. *Journal of Sedimentary Research* v. A64, p. 853-866.
- Joeckel, R.M., 1992, Comparative anatomy and function of the leptaucheniine oreodont middle ear. *Journal of Vertebrate Paleontology* v. 12, p.505-523.
- Joeckel, R.M., 1991, Paleosol stratigraphy of the Eskridge Formation: Early Permian pedogenesis and climate in southeastern Nebraska. *Journal of Sedimentary Petrology* v. 61, p. 234-255.
- Joeckel, R.M., 1990, A functional interpretation of the masticatory system and paleoecology of entelodonts. *Paleobiology* v. 16, p. 459-482.
- Joeckel, R.M., 1989, Paleogeomorphology of a Pennsylvanian land surface: the Rock Lake Shale in Nebraska. *Journal of Sedimentary Petrology* v. 59, p. 469-481.
- Joeckel, R.M., 1988, A new Late Miocene herpetofauna from Franklin County, Nebraska. *Copeia* 1988(3), p. 787-789.
- Joeckel, R.M., 1987, Paleogeomorphic significance of two paleosols in the Dakota Formation (Cretaceous), southeastern Nebraska. *Contributions to Geology (University of Wyoming)* v. 25, p. 95-102.

Published peer-reviewed articles in books and symposium proceedings:

- Suarez, M. B., Suarez, C. A., Al-Suwaidi, A. H., Hatzell, G., Kirkland, J. I., Salazar-Verdin, J., Ludvigson, G. A., Joeckel, R. M., 2017. Terrestrial carbon isotope chemostratigraphy in the Yellow Cat Member of the Cedar Mountain Formation: Complications and pitfalls. In: Ziegler, K. E., and Parker, W.G. (eds.), *Terrestrial Depositional Systems*, pp. 303--336. Amsterdam: Elsevier.
- Greene, R.S.B., Joeckel, R.M., and Mason, J.A., 2006, Dry-saline lakebeds as potential source areas of aeolian dust: studies from the central Great Plains of USA and SE Australia. *Regolith 2006: Consolidation and Dispersion of Ideas. Proceedings of the CRC LEME Regolith Symposium, November 2006, Hahndorf Resort, South Australia.*
- Joeckel, R.M., 2004, Review of Geologic Factors Affecting Underground Limestone Mining in the U.S. and an Overview of Underground Limestone Mining in Nebraska. *Proceedings of the 38th Forum on the Geology of Industrial Minerals, Missouri Department of Natural Resources Geological Survey and Resource Assessment Division Report of Investigations No. 74, p. 31-55.*
- Joeckel, R.M., Ludvigson, G.A., Witzke, B.J., Kvale, E.P., Phillips, P.L., Brenner, R.L., Thomas, S.G., and Howard, L.M., 2004, Paleogeography and Fluvial to Estuarine Architecture of the Dakota Formation (Cretaceous, Albian), Eastern Nebraska, USA. *Fluvial Sedimentology 7. Special Publication, International Association of Sedimentologists, p. 453-480.*
- Joeckel, R.M., Tucker, S.T., Ang Clement, B.J., and Swigart, J.M., 2004, Lacustrine calcareous diatomite and its mining history in east-central Nebraska, USA. *Proceedings of the 39th*

Forum on the Geology of Industrial Minerals, Nevada Bureau of Mines and Geology Special Publication 33, p.162-176.

Published bulletins, field guide chapters, etc.:

- Divine, D.P., Joeckel, R.M., Lackey, S.O., 2017. Aquifers of Nebraska II: The Niobrara aquifer, Conservation and Survey Division, University of Nebraska-Lincoln, Bulletin 7 (New Series), 29 p.
- Divine, D.P., Joeckel, R.M., Lackey, S.O., 2016. Aquifers of Nebraska I: The Codell aquifer in northeastern Nebraska, Conservation and Survey Division, University of Nebraska-Lincoln, Bulletin 7 (New Series), 21 p.
- Tucker, S.T., Otto, R.E., Joeckel, R.M., and Voorhies, M.R., 2014. The geology and paleontology of Ashfall Fossil Beds, a late Miocene (Clarendonian) mass-death assemblage, Antelope County and adjacent Knox County, Nebraska, USA. *Geologic Field Trips along the Boundary between the Central Lowlands and Great Plains: 2014 Meeting of the GSA North-Central Section. Geological Society of America Field Guides*, v. 36, p. 1-22.
- Korus, J.T., Joeckel, R.M., and Divine, D.P., 2013, Three-dimensional hydrostratigraphy of the Firth, Nebraska area: results from helicopter electromagnetic (HEM) mapping in the Eastern Nebraska Water Resources Assessment (ENWRA). Bulletin 3 (New Series) Conservation and Survey Division, School of Natural Resources, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, 100 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 (R. M. Joeckel, ed.). Bulletin 1 (New Series) Conservation and Survey Division, School of Natural Resources, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln, 32 p.

Published essay:

- Joeckel, R.M., 2014. Pawnee Buttes: synecdoche and microcosm. *Great Plains Quarterly*, v. 34, p. 211-215.

Recently published abstracts (2017 only):

- Joeckel, R. M., Ludvigson, and G. A., Kirkland, J. I., 2017. Dynamic pedostratigraphy: Vertisol genesis and sedimentation in an Early Cretaceous (Neocomian–Aptian) fluvial-to-palustrine setting, Sevier foreland, Utah, USA. In: Sames, B. (ed.), *10th International Symposium on the Cretaceous—Abstracts, Berichte der Geologischen Bundesanstalt*, v. 20, p. 132. Geological Survey of Austria.
- Ludvigson, G. A., Gonzalez, L., Suarez, M., Joeckel, R. M., Moeller, A., Ross, J. (2017). Aptian–Albian Terrestrial Paleoclimatology of the North American Western Interior Basin. . In: Sames, B. (ed.), *10th International Symposium on the Cretaceous—Abstracts, Berichte der Geologischen Bundesanstalt*, v. 20, p. 167. Geological Survey of Austria.
- Ludvigson, G. A., Möller, A., Joeckel, R. M., Blum, M. D., McLean, N., 2017. Uranium-lead ages of Cretaceous (Albian–Cenomanian) strata from the Rose Creek Escarpment of the cratonic margin of the Western Interior Basin. *Geological Society of America Abstracts with Programs*, v. 49 [6]. [<https://gsa.confex.com/gsa/2017AM/webprogram/Paper304010.html>].
- Turner, E., Smith, J. J., Möller, A., Otto, R. E., Joeckel, R. M., Tucker, S. T. (2017). The first U–Pb zircon ages for the Ashfall Fossil Beds and Grove Lake volcanic deposits in Nebraska: Two different Yellowstone hotspot track sources. *Geological Society of America Abstracts with Programs*, v. 49 [1]. [<https://gsa.confex.com/gsa/2017SC/webprogram/Paper289615.html>].

Geologic maps (past 5 years only):*

- Joeckel, R.M., Howard, L.M., Tucker, S.T., and Nuzzo, G., 2017. Surficial Geology of the Norden 7.5 Minute Quadrangle, Nebraska (STATEMAP).
- Joeckel, R.M., Scofield, N.I., Howard, L.M., Olafsen Lackey, S., and Tucker, S.T., 2016. Surficial Geology of the Sparks 7.5 Minute Quadrangle, Nebraska Portion. (STATEMAP).
- Joeckel, R.M., Tucker, S.T., Howard, L.M., 2015. Surficial Geology of the Cornell Dam 7.5 Minute Quadrangle, Nebraska (STATEMAP).
- Joeckel, R.M., Tucker, S.T., Howard, L.M., and Kuzila, M.S, 2014. Surficial Geology of the Scotia 7.5 Minute Quadrangle, Nebraska (STATEMAP).
- Joeckel, R.M., Johnson, D., Howard, L.M., and Kuzila, M.S., 2013. Surficial Geology of the Gross 7.5 Minute Quadrangle, Nebraska Portion (STATEMAP).
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