

Emily Bunse
Senior Cartographic Services Specialist
Kansas Geological Survey (KGS) – University of Kansas
(785) 864-6809 | ebunse@ku.edu

GRADUATE EDUCATION

08/2015–08/2018 | M.S., Geology, Department of Geology; Graduate Certificate in GIScience, Department of Geography & Atmospheric Science | University of Kansas | GPA: 3.91 (overall)

Scholarships/Honors

- Angino Ferry Geochemistry Scholarship, Summer 2017
- Erasmus Haworth Graduate Honors in Geology Award, Spring 2019 (post-degree award)

GRADUATE RESEARCH EXPERIENCE

08/2015–08/2018 | M.S., Department of Geology | University of Kansas | Defense: August 2018

Committee members: Dr. J.D. Walker (chair), Dr. Michael Taylor, and Dr. Leigh Stearns

Project: “Interoperability between the StraboSpot graph database and GIS software– A Malpais Mesa Use Case” which predominantly consisted of building the following GIS plug-ins for download and upload of StraboSpot data: ArcMap 10.3.1 Add-In which utilizes the ArcObjects framework using VB.NET and a QGIS 2.18 Plug-In built using QT Designer and Python. More information on the plug-ins can be found at: <https://github.com/StraboSpot/strabo-arcgis-plugin> and <https://github.com/StraboSpot/strabo-qgis-plugin>.

Additional work included a field mapping excursion to Malpais Mesa, Inyo County, CA with three purposes: beta testing the StraboSpot app (available for iOS and Android devices), tectonic and stratigraphic reconnaissance mapping of the area, and gathering data for testing the GIS plug-ins.

08/2017–05/18/18 | Graduate Research Assistant, Cartographic Services | KGS

- Converted KGS Profile Tool ArcGIS Plug-In (written in VB.NET) from ArcGIS for Desktop 10.x to ArcGIS Pro 2.x: <https://github.com/egbunse/KGS-Profile-Tool>
- Automated GIS workflows used in creating geologic maps with Python Scripts
- Troubleshooting solutions to various ArcGIS for Desktop issues
- Digitizing, labeling, and reviewing geologic maps

UNDERGRADUATE EDUCATION

08/2011–08/2015 | B.S., General Geology | Northwest Missouri State University (NWMSU)
GPA: 3.82 | General Geology GPA: 3.72 | Minor: GIS, GPA: 4.0

Scholarships/Honors

- NWMSU President's Scholarship
- Missouri Bright Flight Scholarship
- John Wesley Powell Award for Academic Performance

CURRENT WORK EXPERIENCE

05/2023– | Sr. Cartographic Services Specialist | GIS and IT Division | KGS | Lawrence, KS

- Map and data creation for USGS STATEMAP deliverables and KGS M-series maps.
- Data attribution and metadata tasks for new and existing KGS geology GIS data to conform to the updated USGS GeMS standard.
- Assist in uploading bibliographic entries to the USGS National Geologic Map Database (NGMDB) online catalog.
- Conversion of map projects to ArcGIS Pro, automation of tasks and workflows, and organization of data.

- Participate in proposals to outside funding agencies for development and dissemination of digital map databases and map products.
- Engage in activities with professional organizations and committees to promote a common understanding of procedures, technologies, and standards related to the objectives of the Cartographic Services Team.
- Coordinate with KGS staff members on methods to enhance data and product dissemination.
- Participate in projects to scan and georeferenced historical cartographic products.

Contracts and Committees

- USGS STATEMAP: GIS and Cartography tasks FY2023, 2024
- KGS Culture Committee co-chair

PREVIOUS WORK EXPERIENCE

09/2018–05/2023 | Map Standards Coordinator | IL State Geological Survey | Champaign, IL

- Develop, implement, and communicate cartographic and GIS standards and procedures for all mapping programs at IL State Geological Survey (ISGS)
- Manage implementation of the USGS Geologic Mapping Schema (GeMS) at ISGS
- Research, develop, and create base map data for ISGS publications
- Oversee the migration of data from the GMDM to GeMS data model format
- Coordinate the formal review of geologic maps published at ISGS
- Keep up-to-date on new mapping techniques and technologies, applying them to the map production process to streamline work and decrease turnaround times
- Management of Maps and Publications Group
- (Prior to working remotely) Printed draft maps and publications and processed (fold/bind) for print-on-demand services. Some plotter maintenance/troubleshooting.

Contracts and Committees

- USGS STATEMAP: GIS and Cartography tasks FY2019, 2020, 2021, *2022, *2023 (*co-PI)
- USGS Earth MRI: GIS and Cartography tasks FY2019 (two year), FY2021
- USGS Data Preservation: GIS tasks FY2019, 2020
- USGS Intergovernmental Personnel Agreement (IPA) – Appalachian GeoCamp Program Manager, January-September 2019
- Prairie Research Institute Plotter Committee Member
- ISGS Hiring Committees

05/2014–05/2015 | GIS Intern | Midland GIS Solutions | Maryville, MO

- Used county and municipality (tax) maps and remotely sensed data (NAIP and MSDIS) to digitize roads, water features, farmland, and edit attribute tables.

TEACHING EXPERIENCE

08/2015–05/2017 | Graduate Teaching Assistant | Dept. of Geology | University of Kansas

Assistant to GEOL 304 (Historical Geology), Spring 2017 for Dr. Walker and Dr. Hasiotis. My duties consisted of grading quizzes and exams, formatting exams, answering student questions via email and in office hours, reporting grades to students.

Taught GEOL 103 (Introduction to Geology Lab), Fall 2015, Spring 2016, and Fall 2016. My duties consisted of lecturing before assigning the lab, answering student questions, grading all papers, and keeping track of/reporting grades to students.

01/2012–05/2015 | Lab and Office Assistant | Department of Natural Sciences | NWMSU

Teaching Assistant for Introduction to Geology Lab (taught by Dr. John Pope and Dr. Aaron Johnson) and General Earth Science Lab (taught by Mr. Jeff Bradley) where I helped answer

students' questions and graded labs and quizzes. My duties as office assistant to Dr. Pope included grading papers for Intro to Geology Lecture, making copies, and organizing rock samples.

08/2013–11/2013 | Freshmen Seminar Peer Advisor | Freshmen Seminar Office | NWMSU

Peer Advisor for Dr. Aaron Johnson's Freshmen Seminar class. My duties included: grading papers, answering questions about assignments and the campus, escorting students to events outside of the classroom, greeting students during Freshmen Orientation Week (the week prior to classes beginning).

CONFERENCES AND PRESENTATIONS

Current monthly, virtual meetings

- Geologic Mapping Forum online (held September – April)

Esri International User Conference, San Diego, CA, 07/2024

- Co-presented (with John Dunham) "Surficial Geology of Lincoln County, KS" in the Map Gallery, which won 2nd place in the Thematic Map Category.

USGS Digital Mapping Techniques (DMT), Normal, IL, 05/2024

- Co-presented *The Zen of GeMS – Individual and organizational approaches* ([Slides PDF](#)) with John Dunham
- Co-presented *Update on plans to propose GeMS extension tables* with Dave Soller
- Co-hosted discussion sessions on GIS versus map publications -- Recommendations for appropriate citations and titles and GeMS compliance for "3D" map data with Dave Soller, John Dunham, and Mark Yacucci.

USGS DMT Lite, Virtual, 04/2024

- Presented on KGS web statistics and participated in discussion sessions on field systems and web-usage statistics

USGS DMT, St. Charles, MO, 01/2024

- Invitees discussed the development of guidance for adding extension tables to GeMS to include engineering, land classification, geochemical, and geophysical data.

USGS DMT Lite, Virtual, 10/2023: Participated in discussion sessions on metadata in GeMS.

USGS DMT, Anchorage, AK, 05/2023

- Presented *Boundary challenges in ensuring gapless data* ([Slides PDF](#)) and participated in discussion sessions

USGS DMT Lite, Virtual, 04/2023: Participated in discussion sessions on challenges and approaches for releasing geologic maps, reports, and GIS data.

USGS DMT Lite, Virtual, 11/2022: Participated in discussion sessions on optional GeMS extension tables.

USGS DMT, Rolla, MO, 05/2022

- Presented *Current GeMS Workflows at Illinois State Geological Survey*
- Co-presented *Illinois State Geological Survey Publication Review Systems and ISGS Publication Series - Current Practices* with Mark Yacucci (ISGS)
- Participated in discussion sessions
- Co-presented Illinois State Geological Survey (ISGS) maps in the poster session

USGS DMT Lite, Virtual, 12/2021: Participated in discussion sessions.

USGS DMT, Virtual, 06/2021: Participated in discussion sessions; presented *GeMS implementation at the Illinois State Geological Survey*

Collaborative Database Effort for Geology (CDEFG), Virtual, 04/2021: Co-presented *Stack unit mapping in GeMS by Illinois Geological Survey* with Janet Camarca (ISGS)

- Link to download slides ([PowerPoint](#)); link to recording ([mp4](#))

Geological Society of America (GSA) Connects Online, 10/2020: Attended sessions.

USGS DMT Lite, Virtual, 12/2020: Participated in discussion sessions.

USGS DMT, Virtual, 06/2020: Participated in discussion sessions and co-presented ISGS maps in the poster session.

USGS DMT, Butte, MT, 05/2019: Participated in discussion sessions and co-presented ISGS maps in the poster session.

GSA Indianapolis, IN, 11/2018: Attended and presented *Student Use of StraboSpot, A Geologic Data Management System* and co-presented *Lessons Learned from the Inaugural WVU-USGS Appalachian Geoscience Geocamp* with John Brock.

- **Bunse, Emily G.**, Walker, J. Douglas, Graham, Kathleen A., Tikoff, Basil, Olson, Amy, Ruffedt, Carson J., Kamola, Diane L. And Möller, Andreas, Student Use Of StraboSpot, A Geologic Data Management System, GSA Annual Meeting In Indianapolis, Indiana, Usa-2018, Paper No. 142-9, Session No. 142 T178. Geologic Mapping in the Twenty-First Century: Innovative Applications of Technology and Strategies to Aid Field-Based Studies.
- Brock, John C., Carter, Mark W., Burns, Robert C., **Bunse, Emily G.**, Palaseanu-Lovejoy, Monica, Blake, Mitch, Guala, Gerald, Leveque, Jonas, Nugent, Barnes L., Ashton, Kenneth C., Britton, James Q., Harlan, Nathan and Marketti, Michael, Lessons Learned from the Inaugural WVU-USGS Appalachian Geoscience Geocamp, GSA Annual Meeting in Indianapolis, Indiana, USA-2018, Paper No. 227-6, Session No. 227 T66. The Twenty-First-Century Geoscience Workforce: What Is It? Who Is In It? Who is Missing?.

Attended and presented an informational poster, *StraboSpot: A New Geologic Data Collection System* at the following meetings:

- Geologic Mapping Forum, Minneapolis, MN, March 27-29, 2018
- USGS DMT, Lexington, KY, May 21-23, 2018

American Geophysical Union (AGU) Annual Meeting, New Orleans, LA, 12/2017: Attended and presented an eLightning presentation: *Beta Testing StraboSpot: Perspectives on mobile field mapping and data collection*.

- Poster available at the following link (last tested 9/16/22): [https://agu2017fallmeeting-
agu.ipostersessions.com/default.aspx?s=37-D6-6D-5A-DB-9F-90-33-B7-B2-65-6E-15-4D-AB-DF](https://agu2017fallmeeting-
agu.ipostersessions.com/default.aspx?s=37-D6-6D-5A-DB-9F-90-33-B7-B2-65-6E-15-4D-AB-DF)
- **Bunse, Emily**, Graham, Kathleen Anne, Ruffedt, Carson, Walker, J. Douglas, Möller, Andreas and Tikoff, Basil (2017), Beta Testing StraboSpot: Perspectives on mobile field mapping and data, Abstract 276901 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.

GSA Seattle, WA, 10/2017: Attended, assisted with StraboSpot workshop, and presented *Spots In Spots For GIS: Interoperability Between ArcGIS, QGIS And StraboSpot (Update)*

- **Bunse, Emily G.**, Walker, J. Douglas, Ash, Jason, Jordan-Koenig, Kristen, and Tikoff, Basil, SPOTS IN SPOTS For GIS: Interoperability Between ArcGIS, QGIS And StraboSpot (Update), GSA Annual Meeting in Seattle, Washington, USA- 2017, Paper No. 206-11, Session No. 206 T147. What Can You Do with Geoinformatics?.

GSA Denver, CO, 09/2016: Attended and presented a poster, *Interoperability between the Strabo System and Arc/GIS and QGIS*.

- **Bunse, Emily G.**, Walker, J. Douglas, Ash, Jason and Jordan-Koenig, Kristen, Interoperability between the Strabo System and Arc/GIS And QGIS, GSA Annual Meeting in Denver, Colorado, USA – 2016, Paper No. 242-10, Session No. 242--Booth# 144.

National Science Foundation (NSF) Earth Cube EC3 Conference, Keeler, CA, 08/2015

- Represented the University of Kansas at this meeting of computer- and geo-scientists.
- Helped attendees use Panasonic Toughbook computers with regional data set up in ESRI ArcMap to collect data during field excursions.

GSA Charlotte, NC, 11/2012: attended as a delegate to the Sigma Gamma Epsilon Annual Convention held concurrently.

PUBLICATIONS

Co-authorship credit

Walker, J.D., Tikoff, B., Newman, J., Clark, R., Ash, J., Good, J., **Bunse, E.G.**, Möller, A., Kahn, M., Williams, R.T., Michels, Z., Andrew, J.E., and Ruffedt, C., 2019, StraboSpot data system for structural geology: *Geosphere*, v. 15, no. 2, p. 533–547, <https://doi.org/10.1130/GES02039.1>.

Cartography and GIS data management credit

◆ Indicates [USGS Geologic Map Schema \(GeMS\)](#) used for map creation or conversion to the standard.

Kansas Geological Survey

◆ Collaborated with John Dunham to convert 5 previously published county maps to GeMS as part of the KGS FY2023 USGS STATEMAP project: M-29 Phillips, M-37 Russell, M-102 Osborne, M-97rev Bourbon, and M-120 Crawford.

◆ Sawin, R. S., and Layzell, A. L., 2024, Surficial geology of Lincoln County, Kansas: Kansas Geological Survey, Map M-127, scale 1:50,000. ([PDF of the published map](#))

Layzell, A. L., Newell, K. D., Oborny, S. C., Mandel, R. D., and Dunham, J. W., 2022, Surficial Geology of Miami County, Kansas: Kansas Geological Survey, Map M-126, scale 1:50,000. ([PDF of the published map](#))

Illinois State Geological Survey

(Maps noted as released did not undergo formal peer and cartographic review)

2022

Curry, B.B., A.C. Phillips, N. Healy, A.R. Bruegger, D.M. Lund, and O. Caron, 2022, Surficial geology of Dyer Quadrangle, Cook and Will Counties, Illinois and Lake County, Indiana: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Dyer-SG, 3 sheets, 1:24,000. ([PDF of the released map](#))

Delpomdor, F.R.A, 2022, Bedrock geology of Galena Quadrangle, Jo Daviess County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Galena-BG, 2 sheets, 1:24,000, report, 9 p. ([PDF of the released map](#))

◆ Devera, J.A., and J.R. Breeden, 2022, Geology of Alexander County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Alexander County-G, 2 sheets, 1:48,000. ([PDF of the released map](#))

Devera, J.A., and J.M. Krienert, 2022, Bedrock geology of Andalusia Quadrangle, Rock Island County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Andalusia-BG, 2 sheets, 1:24,000. ([PDF of the released map](#))

Devera, J.A., and J.M. Krienert, 2022, Bedrock geology of Green Rock Quadrangle, Rock Island and Henry Counties, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Green Rock-BG, 2 sheets, 1:24,000. ([PDF of the released map](#))

Devera, J.A., and J.M. Krienert, 2022, Bedrock geology of Port Byron Quadrangle, Rock Island and Henry Counties, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Port Byron-BG, 2 sheets, 1:24,000. ([PDF of the released map](#))

Grimley, D.A. and A.C. Phillips, 2022, Bedrock Topography of Madison County, Illinois: Illinois State Geological Survey, STATEMAP Madison County- BT, 1:62,500. ([PDF of the released map](#))

Grimley, D.A. and A.C. Phillips, 2022, Bedrock Topography of St. Clair County, Illinois: Illinois State Geological Survey, STATEMAP St. Clair County- BT, 1:62,500. ([PDF of the released map](#))

Nelson, W.J., 2022, Surficial geology of Willisville Quadrangle, Perry, Randolph, and Jackson Counties, Illinois: Illinois State Geological Survey, Illinois Geologic Quadrangle Map, IGQ Willisville-SG, 1 sheet, 1:24,000, report, 2 p. ([PDF of the published map](#))

◇ Nelson, W.J., F.B. Denny, J.A. Devera, and J.R. Breeden, 2022, Geology of Massac County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Massac County-G, 2 sheets, 1:48,000. ([PDF of the released map](#))

◇ Nelson, W.J., F.B. Denny, J.A. Devera, and J.R. Breeden, 2022, Geology of Pulaski County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Pulaski County-G, 2 sheets, 1:48,000. ([PDF of the released map](#))

Phillips, A.C., S. Dendy, J. Thomason, B.B. Curry, J.L. Antinao, and H. Loope, 2022, Surficial geology of Russellville Quadrangle, Crawford and Lawrence Counties, Illinois and Knox County, Indiana: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Russellville-SG, 3 sheets, 1:24,000. ([PDF of the released map](#))

Stumpf, A.J., 2022, Surficial geology of Fisher Quadrangle, Champaign County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Fisher-SG, 2 sheets, 1:24,000. ([PDF of the released map](#))

2021

◇ 2020-2021: collaborated with Janet Camarca to convert approximately 40 previously published surficial geologic quadrangle maps to GeMS as part of a USGS National Geological and Geophysical Data Preservation Program project.

◇ Breeden, J.R. (compiler), 2021, Southeastern Illinois Geologic Map Compilation: Illinois State Geological Survey, USGS Earth MRI Contract Report, EMRI SE IL Comp BG, variable scale, GIS database. ([Released data](#))

Curry, B.B., A.C. Phillips, W.R. Lenihan, and E.N.G. Huggett, 2021, Surficial geology of Calumet City Quadrangle, Cook County, Illinois and Lake County, Indiana: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Calumet City-SG, 2 sheets, 1:24,000. ([PDF of the released map](#))

◇ Curry, B.B. and J.F. Thomason, 2021, Surficial Geology of McHenry County, Illinois: Illinois State Geological Survey, STATEMAP McHenry County-SG, 2 sheets, 1:62,500. ([PDF of the released map](#))

Delpomdor, F.R.A., 2021, Bedrock geology of Coal Valley Quadrangle, Rock Island and Henry Counties, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Coal Valley-BG, 2 sheets, 1:24,000, report, 29 p. ([PDF of the released map](#))

Delpomdor, F.R.A., 2021, Bedrock geology of Silvis Quadrangle, Rock Island County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Silvis-BG, 2 sheets, 1:24,000. ([PDF of the released map](#))

- ◆ Denny, F.B. and C.T. Kershaw, 2021, Bedrock geology of Hicks Dome, Hardin and Pope Counties, Illinois: Illinois State Geological Survey, Illinois County Geologic Map, USGS-EMRI contract report, EMRI Hicks Dome-BG, 2 sheets, 1:12,000; report, 145 p. ([Released map and data](#))
- Devera, J.A., and J.M. Krienert, 2021, Bedrock geology of Wedron Quadrangle, LaSalle County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAPWedronBG, 2 sheets, 1:24,000, report, 17 p. ([PDF of the released map](#))
- ◆ Devera, J.A., W.J. Nelson, and C.F. Hoffman, 2020, Bedrock Geology of Union County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, STATEMAP Union County-BG, 1: 48,000, report, 41 p. ([PDF of the released map](#))
- Grimley, D.A., A.C. Phillips, 2021, Surficial geology of Monroe County, Illinois: Illinois State Geological Survey, STATEMAP Monroe County-SG, 2 sheets, 1:62,500. ([PDF of the released map](#))
- ◆ Nelson, W.J., J.A. Devera, and C.F. Hoffman, 2021, Bedrock Geology of Johnson County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, STATEMAP Johnson County-BG, 1: 48,000, report, 38 p. ([PDF of the released map](#))
- Phillips, A.C., B.B. Curry, and A. Sanchez, 2021, Surficial geology of Blue Island Quadrangle, Cook County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, STATEMAP Blue Island-SG, 2 sheets, 1:24,000. ([PDF of the released map](#))

2020

- ◆ 2019-2020: collaborated with Janet Camarca to convert approximately 70 previously published bedrock geologic quadrangle maps to GeMS as part of a USGS National Geological and Geophysical Data Preservation Program project.
- Caron, O.J., B.B. Curry, and D.A. Grimley, 2020, Surficial geology of Steger Quadrangle, Will and Cook Counties, Illinois: Illinois State Geological Survey, STATEMAP Steger-SG, 2 sheets, 1:24,000. ([PDF of the released map](#))
- Curry, B.B., A.C. Phillips, D.A. Grimley, and E.N.G. Huggett, 2020, Surficial geology of Harvey Quadrangle, Cook County, Illinois: Illinois State Geological Survey, STATEMAP Harvey-SG, 2 sheets, 1:24,000. ([PDF of the released map](#))
- Delpomdor, F., and J. Devera, 2020, Bedrock geology of Franklin Grove Quadrangle, Lee County, Illinois: Illinois State Geological Survey, STATEMAP Franklin Grove-BG, 2 sheets, 1:24,000, report, 24 p. ([PDF of the released map](#))
- ◆ Denny, F.B., W.J. Nelson, J.R. Breeden, and R.C. Lillie, 2020, Mines in the Illinois portion of the Illinois-Kentucky Fluorspar District: Illinois State Geological Survey, Circular 604, 73 p. and map. ([PDF of the published map](#))
- Devera, J.A., and J. Krienert, 2020, Bedrock geology of Davenport East and Milan Quadrangles, Rock Island County, Illinois: Illinois State Geological Survey, STATEMAP Davenport East-Milan-BG, 2 sheets, 1:24,000. ([PDF of the released map](#))
- Grimley, D.A., L.R. Follmer, and W. J. Nelson, 2020, Surficial Geology of Williamson County, Illinois: Illinois State Geological Survey, STATEMAP Williamson County-SG, 1:62,500, report, 11 p. ([PDF of the released map](#))
- Nelson, W.J., 2020, Bedrock Geology of Williamson County, Illinois: Illinois State Geological Survey, STATEMAP Williamson County-BG, 1 sheet, 1:62,500; report, 63 p.; 1 pl. ([PDF of the released map](#))
- Phillips, A.C., K. Mander, T.H. Larson, and R. Balikian, 2020, Surficial geology of Crossville Quadrangle, White County, Illinois: Illinois State Geological Survey, STATEMAP Crossville-SG, 2 sheets, 1:24,000. ([PDF of the released map](#))

2019

- Breeden, J.R., J.A. Devera, and F.B. Denny, 2019, Bedrock geology of Otterville Quadrangle, Jersey County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, 1:24,000. ([PDF of the released map](#))
- Caron, O.J., and B.B. Curry, 2019, Surficial geology of Palos Park Quadrangle, Cook County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, 1:24,000. ([PDF of the released map](#))
- Delpomdor, F., 2019, Bedrock geology of Rochelle Quadrangle, Lee and Ogle Counties, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, 1:24,000, report, 5 p. ([PDF of the released map](#))
- Grimley, D.A., P. Szocinski, and S.N. Dendy, 2019, Surficial geology of Beaver Creek Quadrangle, Bond County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, 1:24,000, report, 9 p. ([PDF of the released map](#))
- Nelson, W.J., 2019, Bedrock geology of De Soto Quadrangle, Franklin, Jackson, and Williamson Counties, Illinois: Illinois State Geological Survey, IGQ De Soto-BG, 2 sheets, 1:24,000. ([PDF of the published map](#))
- Nelson, W.J., 2019, Bedrock geology of New Haven SW Quadrangle, Gallatin County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, 1:24,000, report, 7 p. ([PDF of the released map](#))
- Nelson, W.J., 2019, Bedrock geology of Wabash Island Quadrangle, Gallatin County, Illinois and Posey County, Indiana and Union County, Kentucky: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, 1:24,000, report 5 p. ([PDF of the released map](#))
- Phillips, A.C., T.H. Larson, J.F. Thomason, A.C. Anderson, and K.M. Mandera, 2019, Surficial geology of Lawrenceville Quadrangle, Lawrence County, Illinois: Illinois State Geological Survey, USGS-STATEMAP contract report, 2 sheets, 1:24,000. ([PDF of the released map](#))