

Dr. Steven J. Rosscoe

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Education

PhD in Geosciences, Texas Tech University, Lubbock, Texas – 2008

MS in Geosciences, Texas Tech University, Lubbock, Texas – 2005

BA in Geological Sciences, State University of New York College at Geneseo, New York – 2003

Professional Experience

Midwestern State University | Wichita Fall, Texas

Associate Professor of Geology, Kimbell School of Geosciences (August 2023 to Present)

Geology Graduate Program Coordinator (Beginning January 2025)

Visiting Assistant Professor of Geology (August 2022 to August 2023)

- Responsible for teaching undergraduate and graduate courses in my area of expertise (“soft rock geology” or sedimentary geology and paleontology) and in rotating seminar courses. All course work at MSU is listed in the Teaching Responsibilities section that follows. Supervision of undergraduate research projects in soft rock geology including UGROW and EURECA projects. I advise several undergraduate geoscience majors. On the graduate side I supervise thesis students in our MS in Geosciences program and have already graduated two. Additionally, I attend and evaluate thesis defenses for our students and sit on several thesis committees. Departmental service includes participating in meetings, review of graduate applications, curriculum development and discussions, and other tasks as needed. University committee service is the Student Success Council, Honors Program Committee, and Graduate Council (Beginning January 2025).

Hardin-Simmons University | Abilene, Texas

Professor of Geology (August 2020 to August 2022)

Associate Professor of Geology (August 2014 to August 2020)

Assistant Professor of Geology (August 2008 to August 2014)

- For much of my career at HSU, I was responsible for teaching all soft rock geology courses in my primary area of expertise. Over the years that expanded to courses for the environmental management MS program, and courses in other programs as needed (First Year Seminar, Honors Discourse in Science, and Teaching EC-6 Science). The teaching load at HSU was high, 12 hours was the official load, but I taught semesters of over 16-20+ hours, regularly. Upon the closure of the geology program, I taught every course in the major to our remaining students, as the other faculty were let go. I served on numerous committees, including Faculty Council, Faculty Promotion Committee (Chair 2018-19), Teaching Effectiveness, Assessment of Learning Outcomes Committee, and the Holland School of Science and Mathematics Curriculum Committee. I also served on Ad Hoc Committees for Learning Management System Selection and General Education Revision. In addition, I served on several faculty search committees and a dean search committee. I worked with undergraduate students and brought them to GSA meetings to present their research. I received tenure in 2013.

Cisco College / Abilene, Texas

Adjunct Instructor of Geology (September 2021 to December 2021)

- After their regular instructor quit in the first week of the semester, I stepped in and taught the night class and lab for their Historical Geology course.

Texas Tech University / Lubbock, Texas

Adjunct Instructor of Geoscience (June 2011)

- Taught the Advances in Historical Geology course for the MS Multidisciplinary Science program at the Junction Campus for the summer term.

Teaching Responsibilities at Midwestern State University

- GEOS 1234 – Historical Geology
- GEOS 1234 – Historical Geology Online
- GEOS 3034 – Oceanography
- GEOS 3534 – Invertebrate Paleobiology
- GEOS 4534 – Sedimentology and Stratigraphy
- GEOS 4644 – Paleoecology
- GEOS 5313 – Carbonate Depositional Systems
- GEOS 5323 – Clastic Depositional Systems
- GEOS 6001 – Graduate Seminar in Geosciences
- GNSC 1104 – Life/Earth Science

Research and Scholarly Activity

Publications

Rosscoe, S. J., Barrick, J. E., Backus, T. S., and Nestell, M. K., 2025. Age of the Porvenir Formation-Alamitos Formation contact at the Porvenir Type Section, Southern Sangre de Cristo Mountains, New Mexico. *In*: Lucas, S. G., Morgan, G. S., Hunt, A. P., and Lichtig, A. J. (eds.). Fossil Record 10. New Mexico Museum of Natural History and Science Bulletin, No. 100, pp. 197-205.

Barrick, J. E., Hogancamp, N. J., & Rosscoe, S. J. 2023. Evolutionary Patterns in Late Pennsylvanian Conodonts. *In*: DiMichele, W. A., Lucas, S. G., Oplustil, S., Schneider, J.W., & Wang, X (eds.). Ice Ages, Climate Dynamics, and Biotic Events: The Late Pennsylvanian World. Geological Society, London, Special Publications, vol. 535, pp. 383-408.

Rosscoe, S. J., and Barrick, J. E. 2021. Conodont faunas from the lower part of the Tinajas Member of the Atrasado Formation (Upper Pennsylvanian/Missourian), Manzanita Mountains, New Mexico. *In* Lucas, S. G., et. al., eds. Kinney Brick Quarry Lagerstätte. New Mexico Museum of Natural History and Science Bulletin, No. 84, pp. 241-253.

Gee, B. M., Rosscoe, S. J., Scott, D. Ostlein, J., & Reisz, R. R. 2018. Faunal overview of the Mud Hill locality from the early Permian Vale Formation of Taylor County, Texas. *Journal of Paleontology*, 92, no. 6, pp. 1092-1106.

- Hogancamp, N. J., Rosscoe, S. J., and Barrick, J. E. 2017. Geometric morphometric analysis of P₁ element asymmetry in the Late Pennsylvanian conodont *Idiognathodus magnificus* Stauffer and Plummer 1932. *Stratigraphy*, vol. 14, nos. 1-2, pp. 179-196.
- Barrick, J. E., Lambert, L. L., Heckel, P. H., Rosscoe, S. J., and Boardman II, D. R. 2013. Midcontinent Pennsylvanian conodont zonation. *In* Heckel, P. H. ed. Pennsylvanian genetic stratigraphy and biostratigraphy of midcontinent North America. *Stratigraphy*, vol. 10, nos. 1-2, pp. 55-72.
- Rosscoe, S. J. & Barrick, J. E. 2013. North American species of the conodont genus *Idiognathodus* from the Moscovian-Kasimovian Boundary Composite Sequence and correlation of the Moscovian-Kasimovian stage boundary. *In* Lucas, S. G., DiMichele, W. A., Barrick, J. E., Schneider, J. W., and Spielmann, J. A., eds. The Carboniferous-Permian Transition. New Mexico Museum of Natural History and Science: Bulletin, no. 60, pp. 354-371.
- Barrick, J. E., Heckel, P. H. & Rosscoe, S. J. 2012. Conodont-based correlation of lower Conemaugh marine units (Late Pennsylvanian) in Northern Appalachian Basin. *Stratigraphy*, vol. 8, no. 4, pp. 273-279.
- Falcon-Lang, H. J., Heckel, P. H., DiMichele, W. A., Blake, B. M., Easterday, C. R., Eble, C. F., Elrick, S., Gastaldo, R. A., Greb, S. F., Martino, R. L., Nelson, W. J., Pfefferkorn, H. W., Phillips, T. L., & Rosscoe, S. J. 2011B. Reply to comment on "No major stratigraphic gap exists near the Desmoinesian-Missourian Stage Boundary in North America. *Palaios*, vol. 26, no. 2, pp. 125-139." *Palaios*, vol. 26, no. 10, pp. 672-673.
- Falcon-Lang, H. J., Heckel, P. H., DiMichele, W. A., Blake, B. M., Easterday, C. R., Eble, C. F., Elrick, S., Gastaldo, R. A., Greb, S. F., Martino, R. L., Nelson, W. J., Pfefferkorn, H. W., Phillips, T. L., & Rosscoe, S. J. 2011A. No major stratigraphic gap exists near the Desmoinesian-Missourian Stage Boundary in North America. *Palaios*, vol. 26, no. 2, pp. 125-139.
- Rosscoe, S. J. & Barrick, J. E. 2009. *Idiognathodus turbatus* and other key taxa of the Moscovian-Kasimovian boundary interval in the Midcontinent Region, North America. *Newsletter on Carboniferous Stratigraphy*, vol. 27, pp. 21-25.
- Rosscoe, S. J. & Barrick, J. E. 2009. Revision of *Idiognathodus* species from the Desmoinesian-Missourian (~Moscovian-Kasimovian) boundary interval in the Midcontinent Basin, North America. *In* Over, D. J. ed. Conodont studies commemorating the 150th anniversary of the first conodont paper (Pander, 1856) and the 40th anniversary of the Pander Society. *Paleontographica Americana*, no. 62, pp. 115-147.

Published Presentation Abstracts (2009-Present)

- Rosscoe, S. J. & Bader, J. D. 2025. SUBMITTED. Late Desmoinesian to Missourian Platformed Species of Gondolella from the Type Region and Interval of Stauffer and Plummer (1932), Brazos River Valley, Texas. Geological Society of America.
- Rosscoe, S. J. & Bader, J. D. 2024. Gondolellid conodonts from the Upper Salesville Formation, Palo Pinto County, Texas. *Museum of Paleontology, the University of Michigan. Papers on Paleontology* No. 39, p. 370.

Rosscoe, S. J. & Bader, J. D. 2023. Conodonts from the Mineral Wells Fossil Park (Late Pennsylvanian), North-Central Texas. Geological Society of America Abstracts with Programs vol. 55, no. 6.

Hogancamp, N. J., Rosscoe, S. J., and Barrick, J. E. 2016. Landmark-based morphometric analyses of *Idiognathodus magnificus* and development of comprehensive protocols to study morphological variation in conodont P₁ Elements. Geological Society of America: Abstracts with Programs, vol. 48, no. 7.

Heckel, P. H., Barrick, J. E., and Rosscoe, S. J. 2011. Conodont-based correlation of lower Conemaugh marine units (Late Pennsylvanian) in northern Appalachian Basin. Geological Society of America: Abstracts with Programs, vol. 43, no. 1, p. 74.

Butler, G., Holterhoff, P., and Rosscoe, S. 2010. High frequency sequence stratigraphic controls on sequence architecture of an Upper Pennsylvanian “regressive limestone” (Bethany Falls Limestone), Mid-Continent, USA. AAPG Search and Discover Article #90104, AAPG Annual Convention and Exhibition-11-14 April 2010.

Rosscoe, S. J. and Bader, J. D. 2010. Conodont biostratigraphy of the Upper Salesville Shale (Canyon – Upper Pennsylvanian) of north-central Texas as compared to the Hushpuckney Shale of the Midcontinent Basin, USA. Geological Society of America: Abstract with Programs, vol. 42, no. 2, p. 72.

Over, D. J., Travis, M., Morgan, P., Baird, G. C., Rosscoe, S., Bartholomew, A., and Schramm, T. 2009. Conodonts, dacryoconarids, magnetic susceptibility, and placement of the Eifelian-Givetian Boundary in the Marcellus Shale of the lower Hamilton Group, Appalachian Basin, western New York State. Permophiles: Newsletter of the Subcommittee on Permian Stratigraphy, no. 53, supp. 1, p. 38.

Rosscoe, S. J. and Barrick, J. E. 2009. Morphological features, possible functions, and evolution of Late Carboniferous idiognathodid P₁ elements. Permophiles: Newsletter of the Subcommittee on Permian Stratigraphy, no. 53, supp. 1, p. 44-45.

Theses/Dissertations Supervised

Chreene, Kasey. 2025. Reservoir characterization of the Pennsylvanian Lower Caddo Play, Vera Field in Clay County, Texas. Midwestern State University. MS Thesis. 98 p.

Rolle, Wiltany. 2024. The presence of microplastics in sand samples on Long Beach, Long Island, New York. Midwestern State University. MS Thesis. 49 p.

Stancik, Lauren. 2024. State of the cleithrum in Early Permian North American Tetrapods. Midwestern State University. MS Thesis. 88 p.

Student Research Presentations

Lane, A. & Rosscoe, S. 2025. SUBMITTED. Crinoid Conundrum: Analysis of disarticulated crinoid columnals from Mineral Wells, Texas. Geological Society of America.

- Burke, I. & Rosscoe, S. 2025. Comparison of brachiopod general from the Mid-Late Pennsylvanian in North-Central Texas. Geological Society of America Abstracts with Programs, vol. 57, no. 1.
- Kenvin, K. & Rosscoe, S. 2025. High-resolution stratigraphy of the Permian Craddock Bone Bed, Seymour, Texas. Geological Society of America Abstracts with Programs, vol. 57, no. 1.
- Stancik, L., Flis, C., and Rosscoe, S. 2024. Variation in the Early Permian North American Synapsid Cleithrum. Journal of Vertebrate Paleontology, Program and Abstracts, 2024, pp. 515-516.
- Jones, C. & Rosscoe, S. J. 2022. An enigmatic limestone conglomerate in the predominantly siliciclastic Antlers Formation, Taylor County, Texas. Geological Society of America Abstracts with Programs vol. 54, no. 2.
- Deen, J. M., Mann, C. D., Garcia, A., & Rosscoe, S. J. 2020. Preliminary textural analysis of the Antlers Sandstone, Taylor County, Texas. Geological Society of America: Abstracts with Programs, vol. 52, no. 1.
- Robinson, S. E., Rosscoe, S. J., and Dose, M. M. 2017. Preliminary analysis of gamma radiation, conodont element abundance, and finer than sand fraction relationships in the lower Barnett Shale, San Saba, Texas, U.S.A. Geological Society of America: Abstracts with Programs, vol. 49, no. 1.

Supervised Undergraduate Research Projects

- Price, Madeline 2025: Chemostratigraphy of the uppermost East Mountain Shale, North-Central Texas and interpretation of depositional topography. EURECA Project (Full Year)
- Lane, Audrey 2025: Crinoid Conundrum – Describing and evaluating complex crinoid columns. UGROW Project
- Philip, Tameka 2025: Integrating spectral gamma ray and magnetic susceptibility data for stratigraphic correlation of Pennsylvanian cores. Independent Study with Presentation
- Lane, Audrey 2025: Analysis of disarticulated crinoid columns from the Mineral Wells Fossil Park, Mineral Wells, Texas. EURECA Project (Spring)
- Kenvin, Kyler 2025: Microstratigraphy of the Craddock Bone Bed, Baylor County, Texas. EURECA Project (Full Year)
- Burke, Indigo 2025: Fossil plants from the Permian Colwell Creek Pond locality, Foard County, Texas. EURECA Project (Full Year)
- Bryant, Fionn 2024: Building robust sedimentary data sets in the field. UGROW Project
- Burke, Indigo 2024: Comparison of growth series of Early Missourian brachiopod species from the Mineral Wells Fossil Park, North-Central Texas. Independent Study with Presentation
- Morales, Brandi 2023: Which is Which? Finding the differences between two closely-related conodont genera. UGROW Project

Invited Presentations and Workshop Presentations

- *Resolving stratigraphic challenges with conodont biostratigraphy*. North Texas Geological Society. November 16, 2023.
- *Untold Tales: Revisiting and revising the Paleozoic and Mesozoic geology of Texas and adjacent states*. Kimbell School of Geology Colloquium. January 26, 2023.
- *Abilene Underfoot: A look at the unique geology and paleontology of the city and the county that we call home*. Kiwanis Club of Abilene. March 9, 2022.
- *Abilene Underfoot: A look at the unique geology and paleontology of the city and the county that we call home*. Rotary Club of Abilene, October 22, 2021.
- *Twenty Years*. Commencement Address for Cobleskill-Richmondville Central School. June 29, 2019.
- *Hominins Through Time*. New Medic Investment Group. October 2, 2018.
- *Mud, Sweat, and Years: Micropaleontology in Mineral Wells, Texas*. Holland School of Science and Mathematics Research Society. January 28, 2016.
- *Tsunami Information Report*. Holland School of science and Mathematics Public Forum on the Sendai, Japan Earthquake event of 2011. April 4, 2011.
- *Establishing a biostratigraphic framework for global correlation of the Middle-Upper Pennsylvanian Boundary and for age control in the Permian Basin*. Abilene Geological Society. March 18, 2010.

Professional Involvement

- Member of the American Association of Petroleum Geologists (AAPG), the Geological Society of America (GSA), The Paleontological Society, The Pander Society (Conodont Workers), and the North Texas Geological Society.
- Co-convenor and co-moderator of the Session 6: *Conodonts through Time and Space* at the North American Paleontological Convention, Ann Arbor, Michigan. June 2024
- *North American Middle-Late Pennsylvanian Conodont Events and Biostratigraphy* (Rosscoe & Barrick). Subcommission on Carboniferous Stratigraphy Kasimovian Workshop. May 24, 2021. [Link to Presentation](#)
- Co-Chair of Session T137: *Conodonts from shallow water and related environments: in honor and memory of Bruce Wardlaw* for the Annual Meeting of the Geological Society of America, Denver, Colorado. September 2016.
- Vice President, Abilene Geological Society 2010-11.

Service

University Service

- MCOSME representative of the Student Success Council.
- Faculty Mentor for a section of First Year Mustang Adventure (Fall 2023, Fall 2024).
- Supervised two UGROW projects (2023, 2024) and have had two EURECA projects approved for the 24-25 academic year.
- Evaluated student posters and presentations at the UGRCA forum (Spring 2023, Spring 2024).
- Evaluated EURECA proposals for the 2024-25, 2025-26 academic year.

- Participated in Mustangs Rally, Spirit of Mustangs Graduate Walk, MCOSME NSO event, and attended both graduate and MCOSME undergraduate commencement ceremonies.
- Taught *Life on the Rocks* sessions for Young Engineers Summer Camp (YES Camp) (2023, 2024).
- Co-Advisor of the Geosciences Club starting in the Spring 2024.
- Represented MSU and the Kimbell School of Geosciences at the Southwest Section of the American Association of Petroleum Geologists in April 2024.
- Represented the Kimbell School of Geosciences at the joint MSU-ASU research summit (November 11, 2022).
- Actively participated in the building renovation design process, packing and reducing volume of rocks in preparations for moves related to the renovation.
- Actively participate in department meetings and discussions on curriculum and assessment.
- Review graduate student applications for admissions to the MS program.
- Serve on MS advisory committees for Kimbell School students and attend Thesis Defenses.
- Attended Fain Fine Arts productions of “Now. Here. This.” and “Pirates of Penzance” in the 2023-24 season to support the arts at MSU and to enjoy the shows too.

Service to Profession, Discipline, and/or Community

- Reviewed articles for the following journals as a part of the peer-review process: Stratigraphy; The Journal of Paleontology; Palaeogeography, Palaeoclimatology, Palaeoecology; New Mexico Museum of Natural History Bulletin.
- In 2008, I was added as a corresponding member of the Subcommittee on Carboniferous Stratigraphy of the International Commission on Stratigraphy. At the same time, I was approved to be a voting member of the Task Group to Establish the Moscovian-Kasimovian and Kasimovian-Gzhelian Global Stage Boundaries.
- Reviewed grant proposals for the American Chemical Society - Petroleum Research Fund.
- Strimple Award Committee for the Paleontological Society (2019-20 Award Years).
- Graduate Student Dissertation Committee External Member for Texas Tech University PhD Students in Geosciences (2 Students) (2023 to Present).
- Texas Master Naturalist – Rolling Plains Chapter: Paleontology class and fossil collecting field trip each year (2023 to Present).
- Free public consultations on rock and fossil identifications (through the department or direct).
- Patient Health Advisor for Texas Tech Health Sciences Center School of Pharmacy (2018-2022).
- Boy Scouts of America – Guest instructor for geology badge (Abilene Webelos) (2014).
- Outreach Class Visits (Geology and Environmental Science – 3rd and 6th Grades) (2011).
- Consultant Region 14 Science Instructor for 1 week summer enrichment of science teachers for Region 14 in the state of Texas (2010-11).
- Haiti Relief Co-Coordinator – medical supplies collected from Hardin-Simmons community and delivered to Project C.U.R.E. in Houston. (2010).

Awards and Recognitions

- Holland AAPG Award for Teaching Excellence (2020-21)
- Provost’s Award for Outstanding Service to Profession (2015-16)
- Holland AAPG Award for Teaching Excellence (2013-14)