

Richard A. Denne

Program Director

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Education:

Ph.D. in Geology, 5/90, Louisiana State University
Dissertation: Late Quaternary foraminifera of the northwestern Gulf of Mexico
B.S. in Geology with Honors, 12/85, University of Iowa

Research Interests:

Research focus: Regional depositional analyses of organic-rich rocks, particularly from the Cretaceous of Texas. Projects include a multi-student studies of the stratigraphy and depositional environment of the Maness Shale, Woodbine, and Eagle Ford, which includes near-surface cores taken by the USGS, industry cores from the Brazos Basin and south Texas, and outcrops from Big Bend to the Red River.

Specializations: Petroleum Geology, Biostratigraphy, Sequence Stratigraphy, Paleoceanography

Professional Experience:**University of Texas**

2025- *Co-Program Director, Gulf Basin Depositional Synthesis Project*
Co-director of GBD, an industry-supported research project that assembles and synthesizes well, seismic, and other data to establish a basin-scale depositional history of the Gulf of Mexico. Responsibilities include supervision of the institute's staff and students, steward of its annual budget, and working with the consortium's corporate and government members.

Texas Christian University

2016-2024 *Hunter Enis Endowed Chair in Petroleum Geology*
Founding chairholder, charged with enhancing a graduate-level curriculum in petroleum geology, networking with industry recruiters and partners, and the administrative director of the TCU Core Lab. Other duties included mentoring the AAPG student chapter and the AAPG-IBA team.
Major accomplishments included:

- Developed four new courses related to petroleum geology
- Major thesis advisor to six M.S. and two honor's students, and served on 15 additional M.S. committees
- Advised seven AAPG-IBA teams that placed in the top three in regional competition and twice competed in the international finals
- Facilitated the donation of industry cores from multiple unconventional and conventional plays to the TCU Core Lab

2018-2021 *Director, TCU Energy Institute*

Duties included supervision of the institute's staff and affiliated faculty and programs, steward of its \$8 million endowment, working with the institute's industry advisory board, and served on the Neeley Energy MBA advisory board.

Major accomplishments included:

- Re-oriented focus and messaging of the institute towards education and increased breadth of the curricula within the energy minor
- Mentored undergraduates in the energy minor on careers in energy

Marathon Oil Company

2015 *Manager, Subsurface Technology / Worldwide Geosciences*
Leader of the corporate geoscience subject matter expert team with continuing technical responsibilities. Direct reports included geological and geophysical subject matter experts; responsible for the annual budget and review process.

2009-2015 *Senior Technical Consultant, Subsurface Technology / Worldwide Geosciences*
Executive-level subject matter expert responsible for interpretation and integration of stratigraphic data, oversight of biostratigraphic projects and well-site applications, interaction with appropriate consortia and societies, technology development, and mentorship and training of geoscientists in stratigraphy.

Major accomplishments included:

- Integrated regional studies of the Eagle Ford, Bossier/Haynesville, deep-water Gulf of Mexico Miocene and Wilcox trends, offshore Equatorial Guinea, Poland shale, and Paleogene North Sea
- Establishment of a corporate-wide, standard stratigraphic system
- Successfully implemented drilling plans utilizing contractors at well-site on high dollar (~\$1M/day) deep-water drill ships in the Gulf of Mexico

Applied Biostratigraphix

1997-2009 *Principal Stratigrapher*
Biostratigraphic applications including sequence stratigraphy and well-site operations, specializing in deep-water Gulf of Mexico, onshore Louisiana and Texas, and deep-water West Africa and Brazil. Contracts with ExxonMobil, Shell Oil, BHPBilliton, Conoco, Devon Energy, and several smaller operators.

Exxon Exploration Company / Exxon Company, USA

1994-1997 *Domestic biostratigraphy coordinator, Technology Division*
Oversight of consultants and interpretation/integration of stratigraphic data for GoM and onshore US, and also acted as the team's computer/database coordinator. Major projects included Frio/Vicksburg of the King Ranch and Neogene of the offshore GoM, and international projects including deep-water West Africa and North Sea.

1992-1994 *Senior Geologist, GoM Play Development Team*
Regional play fairway analyses of the central GoM (shelf to deep-water) using 2-D and 3-D seismic, logs, and biostratigraphy.

1990-1992 *Geologist, Offshore and Alaska Division*
Focused on application of biostratigraphy in the GoM.

Awards and Honors:

- SW Section AAPG Educator of the Year Award (2021)
- GCAGS Thomas A. Philpott Excellence of Presentation Award 2nd Place (2013)
- AAPG Top Ten Poster (Awarded for three separate posters) (2011)
- SEPM Best Oral Presentation: National AAPG / SEPM Convention (1995)
- LSU Alumni Fellowship (1986-1990)

Professional Societies and Service:

- Texas Christian University
 - University Academic Appeals Committee (2017-present)

- College of Science and Engineering Advisory Committee (2022-present)
- College of Science and Engineering Leadership Team (2018-2021)
- College of Science and Engineering Dean Search Committee (2020-21)
- College of Science and Engineering Hydrology Search Committee (2018-19)
- College of Science and Engineering GIS Search Committee (2017-18)
- College of Science and Engineering Geoscience Education Search Committee (2017-18)
- AAPG
 - Reviewer for Interpretation Journal and AAPG Bulletin (2014-present)
 - IMAGE Gulf Coast / Gulf of Mexico Technical Committee (2024)
 - IMAGE Unconventional Resources reviewer (2022-present)
 - IMAGE Siliciclastic Systems reviewer (2023)
- North American Commission on Stratigraphic Nomenclature (NACSN)
 - Chair (2023-2024)
 - Vice-chairman / chairman elect (2022-23)
 - Commission member representing AAPG (2018-present)
- North American Micropaleontologic Section, SEPM (NAMSSEPM)
 - Executive council member and newsletter editor (2014-2023)
 - Lead Editor: Geologic Problem Solving with Microfossils IV Conference Volume (2017)
 - Workshop / Field Trip Chairman: Geologic Problem Solving with Microfossils III (2013)
 - Field trip leader: Geologic Problem Solving with Microfossils III (2013)
- Gulf Coast Section, SEPM (GCSSEPM)
 - Technical Committee, GCSSEPM Bob Perkins-Rosen Research Conference (2022)
 - Technical Committee, GCSSEPM Bob Perkins-Rosen Research Conference (2016)
- SW Section AAPG
 - Technical Program Chair, Annual Meeting (2021)
- Girl Scouts of Northeast Texas
 - Scientific advisor for GeoQuest Augmented Reality Experience (2019-2020)
- University of Iowa
 - EESB Alumni Board Member (2018-present)
- GeoFORCE (UT Jackson School STEM initiative)
 - Advisory Committee member and Marathon Oil corporate champion (2015)
- International Nannoplankton Association (INA)
 - Workshop organizer: INA 15 (2015)
 - Editorial Board: Journal of Nannoplankton Research (2004-2013)
- Louisiana State University
 - John Franks Endowed Chair search committee member (2013-2014)
- Earth Science Literacy Initiative (NSF Program)
 - Writing and online workshop participant (2008)
- Society for Sedimentary Geology (SEPM)
 - Poster Presentation Awards Chairman: AAPG / SEPM Convention (1995)
- Professional Memberships: AAPG, SEPM, GCSSEPM, NAMSSEPM, INA, Cushman Foundation for Foraminiferal Research

University and Industry Teaching Experience:

Texas Christian University

- *Energy and Natural Resources*; Developed new senior/graduate-level course (2022-present). Broad overview of the natural resources utilized for energy, and the geologic, engineering and business sides of the energy industry.
- *Geology of Texas*; Developed new senior/graduate-level course (2017-present). Stratigraphy and petroleum geology of Texas, focusing on the relationship between plate tectonics, eustasy, basin formation, and stratigraphy with petroleum geology.

- *Conventional Exploration*; Developed new graduate-level course (2017-present). Methods used in exploration for conventional accumulations of oil and gas culminating with AAPG's IBA competition.
- *Mudrocks*; Developed new graduate-level course (2018-present) Examination of mudrocks, particularly unconventional shales in core
- *From Prospect to Production*; Upper level undergraduate/graduate course (2017-2021) Overview of the geologic, engineering, finance, legal, and business sides of the oil and gas industry.
- *Advanced Readings in Energy*; Upper level undergraduate course (2018-2020)
- *Understanding the Earth*; Introductory level undergraduate course (2022-present)

Industry Courses and Field Trips

- *Eagle Ford/Austin Chalk in Outcrop and Core on Walnut Creek Field Trip* (Austin Geological Society, 10/2024)
- *Eagle Ford in Outcrop and Core in the Austin area Field Trip* (BEG Mudrocks Consortium, 2023)
- *Mudstones in Core and Thin-Section* (South-Central GSA Meeting, 2020) Examination of mudstones, particularly unconventional shales, in core and thin-section, the methods used to describe them, and tools used to analyze them in core.
- *Geology of the KPg Boundary at the Brazos Section Field Trip* (Microfossils III Conference, 2013)
- *Unconventional/carbonate field school* (Trans-Pecos, Texas): Marathon Oil Company (Leader; 2013-2015)
- *Shale reservoirs*: Marathon Oil Company (Co-instructor)
- *Applications of Biostratigraphy*: Marathon Oil Company (Instructor)
- *Sequence Stratigraphy*: Marathon Oil Company (Co-instructor)
- *Applied Seismic Interpretation*: Exxon Production Research Company (Co-instructor)
- *Operations Geology*: Exxon Production Research Company (Co-instructor)

M.S. Thesis Committees:

Chair

- Ongoing O'Brian, Payton: Microfacies and geochemical analysis of the Boquillas at Big Bend Ranch State Park: Fall/24
- 2024 Gregory, Gunnar: Stratigraphic and geochemical analysis across the Woodbine-Eagle Ford transition zone, north Texas. Expected defense: Fall/23
- 2023 Davidson, Joshua: Identifying the Source of the Lower Cenomanian Maness Shale of East Texas. Expected defense: 4/23
- 2023 Pastor, Ryan: Depositional, Geometrical, and Reservoir Characteristics of Upper Woodbine Sands at Lake Grapevine of North Texas. Expected defense: 5/23
- 2020 English, Marissa M.: Stratigraphy and geochemistry of the Lower Cenomanian Maness Shale of east Texas
- 2018 Patterson, Samantha: The Maness Shale: A comparison of the geomechanical and mineralogical properties within the Lower Eagle Ford Formation, south Texas

Member

- 2024 Skaleski, Anthony: A regional depositional study of the Triassic Dockum Group
- 2022 Lewis, Carter: Fault Zone Deformation and Mechanical Stratigraphy of the Austin Chalk in Ten-Mile Creek, Dallas, Texas
- 2020 West, Bryanna: Campanian-Maastrichtian ankylosaurs of West Texas and New Mexico
- 2019 Lamb, Grayson: A Source-Sink Analysis of the Dockum Group in the Texas Highplains of the West Texas Panhandle
- 2019 Stieffel, Rodney: Depositional Model and Quaternary Stratigraphy of the Parana Delta (Argentina): Is the Parana Delta the Oldest Modern Delta?

- 2019 Talbert, Brendan: Lower Permian and Pennsylvanian stratigraphy and shale potential of the Palo Duro Basin
- 2019 White, Robert: Stratigraphy of the Ernst Member of the Upper Cretaceous Boquillas Formation, Heath Canyon, Brewster County, Texas
- 2018 Alvarez, John: Regional chemostratigraphy and mechanical stratigraphy of the Barnett Shale, Fort Worth Basin, Texas
- 2018 Harrison, Ross: Depositional environments of Cretaceous-Paleogene coal beds and surrounding strata within the Raton Basin of Colorado and New Mexico, USA
- 2018 Horne, Sean: Depositional modeling and interaction between lithofacies assemblages of Cretaceous-Paleogene strata of the Raton
- 2018 Myers, Cody: A source-to-sink approach to a frontier play; Application of the fulcrum method to Barents Sea feeder rivers in the Cretaceous Festningen Sandstone, Svalbard, Norway
- 2018 Wilson, Nicole: Tuning bankfull flow to climate as a path to better estimates of source-to-sink-mass flux
- 2017 McGregor, Graham: Humid terminal splays as sand-sheet reservoirs: A first look at the modern, Andean Foreland, and anew look at the ancient Raton Basin
- 2017 Weiss, Jonathan: A potential extension of the Barnett Shale oil play: A subsurface play analysis of the Mississippian (Osagean-Meramecian) strata in Shackelford County, Texas
- 2016 Horner, Robert: Facies characterization and architectural context of terminal splay sandstone beds in the Cretaceous-Paleocene Raton Formation, Colorado

Media Interaction:

- 2/2021 Fort Worth Star Telegram: Gas, coal, wind, solar. Expect the politics of energy in the wake of Texas' blackouts
- 2/2021 BEK (North Dakota TV): Keystone Pipeline Politicization
- 2/2021 The Globe and Mail (Toronto Newspaper): Next-gen industry leaders are key to ending North American energy stalemate, experts say
- 2/2021 The Chronicle Journal (Ontario Newspaper): Look to next-gen oil and gas leaders to end North American energy stalemate, experts say
- 2/2021 National Post (online): Look to next-gen oil and gas leaders to end North American energy stalemate, experts say
- 1/2021 WFAA (Dallas TV): Energy Expert and Politicians Weigh Impact of Biden Action on Keystone Pipeline and Drilling Rights
- 1/2021 Texas News Today (online): Energy experts and politicians weigh the impact of President Biden's actions on the Keystone pipeline, drilling rights
- 11/2020 D CEO Magazine: Voices of Boom and Bust
- 6/2020 KRLD (Dallas Radio): Chesapeake bankruptcy
- 4/2020 KTVB (Boise TV): What falling gas prices means for Idahoans
- 4/2020 KRLD (Dallas Radio): Oil, gas, and the economy
- 4/2020 WFAA (Dallas TV): Oil, gas, and the economy
- 4/2020 KXII (Sherman TV): U.S. oil prices drop below zero, experts explain why
- 3/2019 WFAA (Dallas TV): Will the Houston tanker fire impact gas prices?
- 3/2019 KRLD (Dallas Radio): Pipelines

Publications

Books:

- 2019 **Denne, R.A.**, and Kahn, A. (eds.), Geologic Problem Solving with Microfossils IV, SEPM Special Publication 111, 268 p.

Refereed Journal and Special Publication Articles:

- 2025 **Denne, R.A.**, Birdwell, J., Flaum, J., French, K., Gregory, G., Paxton, S., and Whidden, K., A comparison of geochemical and biotic redox proxies with organic matter preservation during the transition from a Woodbine estuary to the anoxic Eagle Ford sea, *in* Whidden, K. et al., (eds.) Integrated Analyses of Carbon Burial in Marine Mudstones throughout the Phanerozoic, Geological Society Special Publication, in prep.
- 2024 Gebremichael, E., Hernandez, R., Alsleben, H., Ahmed, M., **Denne, R.A.**, and Harvey, O.R., Kinematics and Controlling Factors of Slow-Moving Landslides in Central Texas: A Multisource Data Fusion Approach: *Geosciences*, v. 14, 19 p.
- 2020 Kosanke, T., Breyer, J.A., **Denne, R.A.**, Nelson, R.A., Rosen, R.L., Aldin, M., and Warren, A., Controls on Production in the Eagle Ford: Permeability, stratigraphy, diagenesis and fractures, *in* Camp, W., et al. (eds.), *Mudstone diagenesis: Research perspectives for shale hydrocarbon reservoirs, seals, and source rocks: AAPG Memoir 120*, p. 241-262
- 2019 **Denne, R.A.**, Sequence biostratigraphy of organic-rich mudrocks: An example from the Late Cretaceous of Texas, *in* Denne, R.A. and Kahn, A. (eds.), *Geologic Problem Solving with Microfossils IV*, SEPM Special Publication 111, p. 199-227
- 2019 **Denne R.A.**, and Kahn, A., Introduction: Geologic Problem Solving with Microfossils IV, *in* Denne, R.A. and Kahn, A. (eds.), *Geologic Problem Solving with Microfossils IV*, SEPM Special Publication 111, p. 1-2.
- 2018 **Denne, R.A.**, 2018, Plankton, In: *Encyclopedia of Petroleum Geoscience*, Elsevier, The Netherlands, 11 p.
- 2017 **Denne, R.A.**, Biostratigraphy, In: *Encyclopedia of Petroleum Geoscience*, Elsevier, The Netherlands, 19 p.
- 2017 **Denne, R. A.**, Callender, A.D., Engelhardt-Moore, N., Hinote, R.E., and Lowery, C.M., *Gavelinella breardi*: a new name for the industry marker “*Anomalina W*” from the Turonian of the Gulf Coast: *Journal of Foraminiferal Research*, v. 47, p. 358-365.
- 2016 **Denne, R. A.**, Breyer, J.A., Callender, A.D., Hinote, R.E., Kariminia, M., Kosanke, T.H., Kita, Z., Lees, J.A., Rowe, H., Spaw, J.M., and Tur, N., Integrated stratigraphy and biostratigraphy of the Cenomanian-Turonian interval (Eagle Ford and Woodbine Groups), Texas, Part 1: Biostratigraphic and geochemical constraints on the stratigraphy and depositional environments of the Eagle Ford and Woodbine Groups of Texas: *in* Breyer, J. A. (ed.), *The Eagle Ford Shale: A renaissance in U.S. oil production*, AAPG Memoir 110, p. 1-84
- 2016 **Denne, R.A.**, Breyer, J.A., Integrated stratigraphy and biostratigraphy of the Cenomanian-Turonian interval (Eagle Ford and Woodbine Groups), Texas, Part 2: Regional depositional episodes of the Cenomanian-Turonian Eagle Ford and Woodbine groups of Texas: *in* Breyer, J. A. (ed.), *The Eagle Ford Shale: A renaissance in U.S. oil production*, AAPG Memoir 110, p. 85-125
- 2016 Breyer, J.A., **Denne, R.**, Kosanke, T., Spaw, J.M., Funk, J.E., Christianson, P., Bush, D.A., and Nelson, R., Facies, Fractures, Pressure and Production in the Eagle Ford Shale (Cretaceous) between the Maverick Basin and the San Marcos Arch, Texas, USA: *in* Breyer, J. A. (ed.), *The Eagle Ford Shale: A renaissance in U.S. oil production*, AAPG Memoir 110, p. 369–389.
- 2015 Cramer, B.D., Lewandowski, K.J., Goldstein, A., Asher, P., Ryan, J., Schofield, D.I., Buchanan, R., **Denne, R.**, Ausich, W.I., Vandenbroucke, T.R.A., Lundy, S., Priest, T., and Clark, R.J., Who will build the 21st century? Addressing critical demographic gaps in the geosciences: *GSA Today*, v. 25, p. 36-37
- 2014 **Denne, R.A.**, Hinote, R.E., Breyer, J.A., Engelhardt-Moore, N., Kosanke, T.H., Lees, J.A., Spaw, J.M., and Tur, N., The Cenomanian-Turonian Eagle Ford of South Texas: Insights on timing and paleoceanographic conditions from geochemistry and micropaleontologic analyses: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 413, p. 2-28
- 2014 Scott, E., **Denne, R.A.**, Kaiser, J.M., and Eickhoff, D.P., Impact on sedimentation into the north-central deepwater Gulf of Mexico as a result of the Chicxulub event: *GCAGS Journal*, v. 2, p. 41-50

- 2013 **Denne, R.A.**, Scott, E.D., Kaiser, J.M., Eickhoff, D.P., Hill, R., and Spaw, J.M., Massive Cretaceous-Paleogene boundary deposit, deep-water Gulf of Mexico: New evidence for widespread Chicxulub-induced slope failure: *Geology*, v. 41, p. 983-986
- 2013 **Denne, R.A.**, and Blanchard, R., Regional controls on the formation of the ancestral DeSoto Canyon by the Chicxulub impact: *GCAGS Journal*, v. 2, 17-28
- 2009 **Denne, R.A.**, Assemblage-based biozonations: A key tool in the detection of reworked calcareous nannofossils, *in* Demchuk, T.D, and Gary, A.T. (eds), *Geological Problem Solving with Microfossils*, SEPM Special Volume 93, p. 41-55
- 2003 **Denne, R.A.**, and Sen Gupta, B.K., The benthic foraminiferal record from the bathyal Gulf of Mexico during the last glacial – postglacial transition: *in* Olson, H.C., and Leckie, R.M. (eds.), *Micropaleontologic Proxies for Sea-Level Change and Stratigraphic Discontinuities*, SEPM Special Volume 75, p. 63 – 79
- 1996 **Denne, R.A.**, and Sen Gupta, B.K., *Louisianina pflumi* and *Grossmanella leroyi*, new genera and species of benthic foraminifera: *Journal of Foraminiferal Research*, v. 26, p. 244 - 247
- 1993 **Denne, R.A.**, and Sen Gupta, B.K., Matching of benthic foraminiferal depth limits and water mass boundaries in the northwestern Gulf of Mexico: An investigation of species occurrences: *Journal of Foraminiferal Research*, v. 23, p. 108-117
- 1991 **Denne, R.A.**, and Sen Gupta, B.K., Association of bathyal foraminifera with water masses in the northwestern Gulf of Mexico: *Marine Micropaleontology*, v. 17, p. 173-193.
- 1989 **Denne, R.A.**, and Sen Gupta, B.K., Effects of taphonomy and habitat on the record of benthic foraminifera in modern sediments: *Palaios*, v. 4, p. 414-423
- 1988 **Denne, R.A.**, and Sen Gupta, B.K., Abundance variations of dominant benthic foraminifera on the northwestern Gulf of Mexico slope: Relationship to bathymetry and water mass boundaries: *Bulletin Institute Geologique Bassin d'Aquitaine*, no. 44, p. 33-43

Conference Papers:

- 2022 Chin, S.C., and **Denne, R.A.**, Using calcareous nannofossil paleoecology as a proxy for paleoproductivity and paleoceanographic reorganization of the southern Western Interior Sea during OAE2: GCSSEPM Foundation Perkins-Rosen Research Conference, p. 18-21.
- 2022 **Denne, R.A.**, Organic- and coccolith-rich mudstones as dual carbon sinks: the Cenomanian–Turonian Eagle Ford of Texas: GCSSEPM Foundation Perkins-Rosen Research Conference, p. 29-32.
- 2022 Gregory, G.M., **Denne, R.A.**, English, M., and Patterson, S., Time-transgressive transition from oxic to anoxic bottom waters during the Cenomanian in the Greater East Texas Basin: GCSSEPM Foundation Perkins-Rosen Research Conference, p. 102-104.
- 2019 **Denne, R.A.**, Applications of biostratigraphy to salt tectonics, northern Gulf of Mexico: Salt Tectonics, Associated Processes, and Exploration Potential: Revisited: 1989–2019, GCSSEPM Foundation Perkins-Rosen Research Conference, p. 143-182
- 2019 **Denne, R.A.**, and Patterson, S., The Effects of the Maness Shale on Eagle Ford Water Production: URTeC Paper 928, 15 p.
- 2017 **Denne, R.A.**, Sequence biostratigraphy in unconventional resource plays: Do we need a different paradigm?: Sequence Stratigraphy: The Future Defined: GCSSEPM Perkins-Rosen Research Conference, p. 21
- 2016 **Denne, R.A.**, and Breyer, J.A., Regional Depositional Episodes of the Cenomanian-Turonian Eagle Ford and Woodbine Groups of Texas and their relationship to Oceanic Anoxic Event 2 (OAE2): *GCAGS Transactions*, p. 145-158
- 2016 **Denne, R.A.**, and Breyer, J.A., Regional Depositional Episodes of the Cenomanian-Turonian Eagle Ford and Woodbine Groups of Texas and their relationship to Oceanic Anoxic Event 2 (OAE2): *Mesozoic of the Gulf Rim and Beyond: New Progress in Science and Exploration of the Gulf of Mexico Basin*, GCSSEPM Foundation Perkins-Rosen Research Conference, 27 p
- 2016 Weimer, P., **Denne, R.**, Zimmerman, E., Snyder, B., Hirsh, H., Bettinger, D., and Cumella, S., Variations in wireline log expression of the top Cretaceous-base Paleocene Chicxulub debrite, northern deep-water Gulf of Mexico: *GCAGS Transactions*, p. 583-600

- 2016 Weimer, P., **Denne, R.**, Zimmerman, E., Snyder, B., Hirsh, H., Bettinger, D., and Cumella, S., Litho- and biostratigraphic evolution of the Upper Jurassic through top Cretaceous strata, northern deep-water Gulf of Mexico: GCAGS Transactions, p. 569-582
- 2013 Breyer, J.A., **Denne, R.**, Kosanke, T., Spaw, J.M., Funk, J.E., Christianson, P., Bush, D.A., and Nelson, R., Facies, Fractures, Pressure and Production in the Eagle Ford Shale (Cretaceous) between the Maverick Basin and the San Marcos Arch, Texas, USA, URTeC paper 1561402, p. 1556-1576
- 2012 Scott, E., **Denne, R.A.**, Kaiser, J.M., and Eickhoff, D.P., Immediate and postevent effects of the K/Pg Boundary Chicxulub Impact on the northern Gulf of Mexico: *in* Rosen, N., et al. (eds.), New Understanding of the Petroleum Systems of Continental Margins of the World, GCSSEPM Foundation Bob F. Perkins Research Conference, p. 96-109
- 2008 **Denne, R.A.**, Utilizing Abundance Changes of New and Non-Standard Calcareous Nannofossil Taxa to Increase Biostratigraphic Resolution in Expanded Continental Margin Deposits: Examples From the Middle and Lower Miocene of the Gulf of Mexico: GCAGS Transactions, v. 58, p. 227-239
- 2007 **Denne, R.A.**, Paleogene calcareous nannofossil bioevents from the fold belts of the central Gulf of Mexico: *in* Kennan, L., Pindel, J., and Rosen, N. C. (eds.), The Paleogene of the Gulf of Mexico and Caribbean Basins: Processes, Events, and Petroleum Systems, GCSSEPM Foundation Bob F. Perkins Research Conference, p. 211-231
- 2003 **Denne, R.A.**, Sequence biostratigraphy and a new nannofossil zonation of the Pleistocene Gulf of Mexico: GCAGS Transactions, v. 53, p. 183 – 192
- 2000 Breard, S.Q., Callender, A.D., **Denne, R.A.**, and Nault, M.J., Gulf of Mexico basin late Tertiary deep-water biostratigraphic zonation: relationship to standard shelf foraminiferal and calcareous nannofossil marker terminology: *in* Weimer, P., ed., Deep Water Reservoirs of the World: GCSSEPM Foundation Bob F. Perkins Research Conference, p. 116 – 126
- 2000 Breard, S.Q., Callender, A.D., **Denne, R.A.**, and Nault, M.J., Taxonomic Uniformitarianism in Gulf of Mexico Basin Cenozoic Foraminiferal Paleoecology: Is the Present Always the Key to the Past?: GCAGS Transactions, v. 50, p. 725-736
- 1990 **Denne, R.A.**, and Sen Gupta, B.K., First and last occurrences of Quaternary benthic foraminifera in the Gulf of Mexico: Relation to paleoceanography: GCAGS Transactions, v. 40, p. 177-180

Published Abstracts:

- 2024 **Denne, R.A.**, Davidson, J., English, M., and Patterson, S., The Maness Shale of East Texas: Sediment Source and Production Implications: GCAGS Transactions, Program with Abstracts
- 2024 **Denne, R.A.**, The Woodbine-Eagle Ford Depositional System Revisited: What is the Woodbine?: GCAGS Transactions, Program with Abstracts
- 2024 O'Brian, P., and **Denne, R.A.**, Geochemical comparison of Cenomanian post-Buda mudrocks in south Texas and Big Bend Ranch State Park: SEG / AAPG International Meeting for Applied Geoscience & Energy, Program with Abstracts
- 2023 Gebremichael, E., Hernandez, R., Alsleben, H., Ahmed, M., **Denne, R.A.**, and Harvey, O.R., Kinematics and Controlling Factors of Slow-Moving Landslides in Central Texas: A Multisource Data Fusion Approach: American Geophysical Union, Program with Abstracts
- 2023 Gregory, G.M., **Denne, R.A.**, and Henk, B., Stratigraphy and Geochemistry of the Woodbine-Eagle Ford Transition, North-Central Texas: SEG / AAPG International Meeting for Applied Geoscience & Energy
- 2023 Pastor, R., **Denne, R.A.**, and Henk, B., Depositional Environment and Reservoir Characteristics of the Upper Woodbine Sandstones in Outcrop on Lake Grapevine, Texas: : SEG / AAPG International Meeting for Applied Geoscience & Energy
- 2021 **Denne, R.A.**, English, M., and Patterson, S., Precursor to OAE2: Anoxia Across the Texas Shelf During the Early to Late Cenomanian: SEG / AAPG International Meeting for Applied Geoscience & Energy, Program with Abstracts

- 2021 Henk, B., and **Denne, R.A.**, Reevaluation of Upper Woodbine Depositional Environments in the Outcrops of the Type Area, North-Central Texas: SEG / AAPG International Meeting for Applied Geoscience & Energy, Program with Abstracts
- 2021 Henk, B., and **Denne, R.A.**, Evidence for tidal influence in the deposits of the upper Woodbine, DFW Metroplex: SW AAPG Annual Convention, Program with Abstracts
- 2021 Lewis, C., Alsleben, H., **Denne, R.A.**, and Henk, B., Stratigraphic correlation of the Austin Chalk using spectral gamma ray data from outcrops in north-central Texas: Geological Society of America Annual Meeting, Program with Abstracts
- 2021 Warwick, B., and **Denne, R.A.**, Geochemical, geomechanical, and petrophysical research capabilities of the TCU Core Lab: SW AAPG Annual Convention, Program with Abstracts
- 2020 **Denne, R.A.**: Musings of a petroleum geologist: 11th Annual Texas A&M Energy Law Symposium.
- 2020 English, M. M., **Denne, R.A.**: Stratigraphy and geochemistry of the Lower Cenomanian Maness Shale of east Texas: SC GSA Annual Meeting, Program with Abstracts
- 2019 Patterson, S., and **Denne, R.A.**, The Maness Shale: A comparison of the geomechanical and mineralogic properties within the Lower Eagle Ford near the San Marcos Arch: AAPG Annual Meeting, Program with Abstracts
- 2017 **Denne, R.A.**, and Kita, Z., Calcareous nannofossils from the Late Campanian Manson impact structure at the eastern edge of the Western Interior Seaway: International Nannoplankton Association Conference 16, Abstracts.
- 2017 **Denne, R.A.**, Sequence biostratigraphy in organic-rich mudrocks: NAMSSEPM Geologic Problem Solving with Microfossils IV, Program with Abstracts.
- 2015 **Denne, R.A.**, Calcareous nannofossil biostratigraphy in unconventional resource plays: International Nannoplankton Association Conference 15, Abstracts.
- 2013 **Denne, R.A.**, Hinote, R.E., Engelhardt-Moore, N., and Spaw, J.M., Thin Section Foraminiferal Biostratigraphy of the Cenomanian-Turonian Eagle Ford Formation, South Texas: Geologic Problem Solving with Microfossils III, Abstract Volume, p. 36-37
- 2013 **Denne, R.A.**, Herrmann, A., Hinote, R.E., and Spaw, J.M., Multiple 'Filament' Events in the Cenomanian-Turonian Eagle Ford of South Texas: Global Correlation and Possible Causal Factors: Geologic Problem Solving with Microfossils III, Abstract Volume, p. 35-36
- 2013 Breyer, J.A., **Denne, R.A.**, Funk, J., Kosanke, T., and Spaw, J.M., Stratigraphy and Sedimentary Facies of the Eagle Ford Shale (Cretaceous) Between the Maverick Basin and the San Marcos Arch, Texas, USA: AAPG Annual Meeting, Program with Abstracts
- 2013 Kosanke, T.H., **Denne, R.A.**, Egenhoff, S., Spaw, J.M., and Breyer, J.A., Cyclic drivers for limestone / marl sequences, Eagle Ford Shale (Cenomanian-Turonian), South Texas: AAPG Annual Meeting, Program with Abstracts
- 2012 **Denne, R.A.**, Barnes, M., Blanchard, R.H., Scott, E.D., Anderson, B., and Page, S., Formation of the DeSoto Canyon, northeastern Gulf of Mexico: AAPG Annual Meeting, Program with Abstracts
- 2011 **Denne, R.A.**, Scott, E.D., Kaiser, J.S., and Eickhoff, D.P., Impact generated soft-sediment resuspension and calcareous nannofossil mixing produced by the Chicxulub and Manson impacts: GSA Annual Meeting, Program with Abstracts
- 2011 **Denne, R.A.**, Scott, E.D., Kaiser, J.S., and Eickhoff, D.P., Single K/Pg impact: New evidence from the Gulf of Mexico basin floor: GSA Annual Meeting, Program with Abstracts
- 2011 **Denne, R.A.**, Scott, E.D., Buddin, T.S., Carlson, S.D., Eickhoff, D.P., Hill, R., and Spaw, J.M., The K/Pg Boundary Chicxulub Impact deposit in the deep-water Gulf of Mexico: Implications for regional stratigraphy and the "MCU": AAPG Annual Meeting, Program with Abstracts
- 2011 **Denne, R.A.**, Scott, E.D., Buddin, T.S., Carlson, S.D., Eickhoff, D.P., Hill, R., and Spaw, J.M., Biostratigraphic, lithologic, and seismic characteristics of the K/Pg Boundary Chicxulub Impact deposit, deep-water Gulf of Mexico: AAPG Annual Meeting, Program with Abstracts
- 2011 Scott, E.D., **Denne, R.A.**, Buddin, T.S., Carlson, S.D., Eickhoff, D.P., Hill, R., and Spaw, J.M., Sediment redistribution in the Gulf of Mexico Resulting from the K/Pg Boundary Chicxulub

- Impact and the resulting influence on Wilcox Formation sedimentation patterns: AAPG Annual Meeting, Program with Abstracts
- 2010 **Denne, R.A.**, Microfossil taxonomy in the 21st Century: AAPG Annual Meeting, Program with Abstracts.
- 2009 **Denne, R.A.**, Detailed biostratigraphic correlations of the Oligocene utilizing reticulofenestrid morphometric and abundance changes: Geological Problem Solving with Microfossils II, Abstract Volume with Program, p. 28-29
- 2008 **Denne, R.A.**, Utilizing Abundance Changes of New and Non-Standard Calcareous Nannofossil Taxa to Increase Biostratigraphic Resolution in Expanded Continental Margin Deposits: Examples From the Middle and Lower Miocene of the Gulf of Mexico: GSA Annual Meeting, Abstracts with Programs, abstract 806-2
- 2006 **Denne, R.A.**, High resolution calcareous nannofossil bioevents: an example from the basal Middle Miocene of the Gulf of Mexico: International Nannoplankton Association Conference 11, Abstracts, p. 37-38
- 2005 **Denne, R.A.**, Assemblage-Based Biozonations: A Key Tool in the Detection of Reworked Fossils: Geological Problem Solving with Microfossils, Program with Abstracts, Houston, TX
- 1999 **Denne, R.A.**, and Sen Gupta, B.K., The Benthic Foraminiferal Record from the Bathyal Gulf of Mexico During the Last Glacial – Interglacial Transition and its Paleooceanographic Implications: AAPG Annual Meeting, Program with Abstracts
- 1998 **Denne, R.A.**, Calcareous nannoplankton dominance shifts of the Plio-Pleistocene: Global significance and implications for biostratigraphy: International Nannoplankton Association 7, Abstracts, Puerto Rico, US
- 1997 **Denne, R.A.**, Increasing Biostratigraphic Resolution to the Reservoir Scale Through Sequence Biostratigraphy and Graphic Correlation: Biostratigraphy in Production and Development Geology, Abstracts, Aberdeen, UK
- 1996 **Denne, R.A.**, Applications of graphic correlation in operational activities: AAPG Bulletin, Programs, v. 5, p. A35
- 1995 **Denne, R.A.**, The effect of Mississippi River Delta outflow on bathyal benthic foraminiferal assemblages: AAPG Bulletin, Programs, v. 4, p. 22A
- 1994 **Denne, R.A.**, Operational applications of graphic correlation: SEPM Research Conference: Graphic Correlation and the Composite Standard: The Methods and Their Applications, p. 16
- 1994 **Denne, R.A.**, Implications of the Plio-Pleistocene record of *Osangularia culter* and *Bulimina alazanensis* in Gulf of Mexico paleoceanography: PaleoBios, v. 16 supplement 2, p. 29
- 1992 **Denne, R.A.**, and Sen Gupta, B.K., Bathyal waters of the northwestern Gulf of Mexico during the last glaciation as indicated by benthic foraminifera: 1992 Annual Meeting, GSA South-Central Section, Abstracts with Program
- 1991 **Denne, R.A.**, and Sen Gupta, B.K., Effects of water-mass changes on Quaternary biostratigraphy, Gulf of Mexico: AAPG Bulletin, v. 75, p. 562
- 1989 **Denne, R.A.**, and Sen Gupta, B.K., Late Quaternary benthic foraminifera and water masses of the northern Gulf of Mexico: A species presence-absence study: 1989 Annual Meeting, Geological Society of America, Abstracts with Programs, p. A47
- 1989 **Denne, R.A.**, and Sen Gupta, B.K., Effects of taphonomy on benthic foraminiferal distribution patterns in surface sediments: 28th International Geological Congress, Abstracts, v. 1, p. 388
- 1988 **Denne, R.A.**, and Sen Gupta, B.K., Benthic foraminiferal zonation on the northwestern Gulf of Mexico slope: A close look (expanded abstract): GCAGS Transactions, v. 38, p. 578
- 1988 **Denne, R.A.**, and Sen Gupta, B.K., Benthic foraminiferal zonation on the northwestern Gulf of Mexico slope: A close look: AAPG Bulletin, v. 72, p. 1111

Invited Presentations:

10/2024 Austin Geological Society

Where the river meets the rising sea: the interface of the Woodbine and Eagle Ford in north and central Texas

- 10/2022 Baylor University Geosciences Seminar
Precursor to OAE2: Anoxia across the Texas shelf during the Early to Middle Cenomanian
- 9/2022 Fort Worth Geological Society
Dual carbon sinks: the organic- and coccolith-rich mudstones of the Eagle Ford of Texas
- 5/2021 Shreveport Geological Society/East Texas Geological Society Continuing Education Webinar
The Energy Transition-Where's the Middle Ground?
- 10/2020 Fort Worth Geological Society
Relationship between East Texas deltas and Eagle Ford production
- 9/2020 Abilene Geological Society
Relationship between East Texas deltas and Eagle Ford production
- 8/2020 DFW Geoscience Seminar
Prelude to OAE2: Anoxia across the Texas shelf during the Early to Middle Cenomanian
- 11/2019 Dallas Geological Society International Dinner
Massive Shelf and Slope Failure at the KPg Boundary: How Chicxulub Reshaped the Gulf of Mexico
- 4/2018 Dallas SIPES chapter luncheon
The effect of regional depositional episodes on unconventional production of the Eagle Ford-Woodbine system
- 2/2018 Fort Worth SIPES chapter luncheon
The effect of regional depositional episodes on unconventional production of the Eagle Ford-Woodbine system
- 11/2017 Oklahoma City Geological Society Dinner
Massive Cretaceous-Paleogene boundary deposit and initial incision of the ancestral Desoto Canyon: New evidence for widespread Chicxulub-induced slope failure in the deep-water Gulf of Mexico
- 9/2017 Fort Worth Geological Society Luncheon
Massive Cretaceous-Paleogene boundary deposit and initial incision of the ancestral Desoto Canyon: New evidence for widespread Chicxulub-induced slope failure in the deep-water Gulf of Mexico
- 4/2017 Dallas-Fort Worth Association of Lease and Title Analysts Seminar
The basins of Texas
- 3/2017 Dallas Paleontological Society Meeting
The effects of the Chicxulub Impact on the Gulf of Mexico
- 3/2016 Colorado School of Mines Van Tuyl Lecture Series
Massive Cretaceous-Paleogene boundary deposit and initial incision of the ancestral Desoto Canyon: New evidence for widespread Chicxulub-induced slope failure in the deep-water Gulf of Mexico
- 2/2016 Louisiana State University Wilbert Seminar
Regional depositional episodes of the Cenomanian-Turonian Eagle Ford and Woodbine groups of Texas and their relationship to Oceanic Anoxic Event 2 (OAE2)
- 4/2015 Jackson School Latin American Forum (Mexico City)
Collapse of the Florida Escarpment and Formation of the DeSoto Canyon
- 3/2015 International Nannoplankton Association (INA) 15 conference (Philippines) keynote address
Calcareous nannofossil biostratigraphy in unconventional resource plays
- 6/2014 International Geoscience Programme Public Policy Symposium
The Great Crew Change in the Oil Patch: The Death and Resurrection of Geoscience Specialists
- 5/2014 University of Texas - Bureau of Economic Geology Seminar
Biostratigraphic and chemostratigraphic constraints on the regional stratigraphy and depositional environments of the Eagle Ford Group and equivalent formations in Texas
- 2/2014 American Museum of Natural History (New York)
The Effect of Chicxulub on the Deepwater Gulf of Mexico
- 11/2012 Society of Exploration Geophysicists (SEG) Gravity and Magnetism luncheon
The Effect of Chicxulub on the Deepwater Gulf of Mexico

- 9/2012 New Orleans Geological Society (NOGS) luncheon
The Effect of Chicxulub on the Deepwater Gulf of Mexico
- 9/2012 University of Iowa Department of Geoscience Seminar
The Effect of Chicxulub on the Deepwater Gulf of Mexico
- 9/2012 University of Nebraska Stout Seminar
The Effect of Chicxulub on the Deepwater Gulf of Mexico
- 5/2012 University of Texas Institute of Geophysics Seminar
The Effect of Chicxulub on the Deepwater Gulf of Mexico
- 3/2012 Houston Geological Society (HGS) North America dinner
The Effect of Chicxulub on the Deepwater Gulf of Mexico
- 2011 Louisiana State University Wilbert Seminar
The Effect of Chicxulub on the Deepwater Gulf of Mexico

Significant Industry Projects:

TCU

- Stratigraphy of Austin Chalk in cores from Texas and Louisiana (Client: EOG Resources)

Marathon Oil Company

- Multi-year study of the stratigraphy, depositional environments, and geomechanics of the Eagle Ford and Austin Chalk in cores from south Texas
- Establishment of stratigraphic frameworks for Texas (Gulf, Fort Worth, Permian, and Anadarko basins), North American Devonian / Mississippian Shales, Western Interior Cretaceous Seaway, Equatorial Guinea, Gulf Coast (Jurassic – Recent), North Sea, Kurdistan, Gabon, East Africa Rift Valleys, and Poland
- Depositional systems analyses of Equatorial Guinea, Gulf of Mexico Upper Miocene, Middle-Lower Miocene, Wilcox, and Norphlet trends
- Well-site biostratigraphy oversight and interpretation for Marathon-operated deep-water GoM wells

Applied Biostratigraphix

- Focused on the Gulf of Mexico deep-water Miocene and Wilcox trends. Significant multi-well projects included Atlantis, Cascade, Jack, Mad Dog, Magnolia, Neptune, Puma, Shenzi, and St. Malo fields
- Major onshore projects included Bossier/Haynesville, Eagle Ford, and CLF Field (onshore Louisiana)
- International significant multi-well projects included projects in onshore Mozambique, Santos and Campos Basins in offshore Brazil, and Angostura in offshore Trinidad. Other areas worked included Nigeria, Angola, Equatorial Guinea, Cameroon, Venezuela, Pakistan, Iraq, and the South China Sea.
- Clients included: BHPBilliton, Shell Exploration, ExxonMobil, ConocoPhillips, Devon Energy, Statoil, Marathon Oil, Newfield Exploration, Kerr McGee, Bois D'Arc, EXCO Resources, Marlin Oil, Pakistan Petroleum Limited, Samson, and Walter Oil and Gas

Exxon Exploration Company / Exxon Company USA

- Stratigraphy of Neogene Gulf of Mexico Shelf and Flex (slope) trends
 - Significant projects included studies of Allegheny, Diana / Hoover, Lena, Mica, and Ursa fields
- Stratigraphy of onshore Gulf Coast
 - Significant projects included a multi-field study of the Frio and Vicksburg (Oligocene) of the King Ranch
- Stratigraphy of Cenozoic and Cretaceous basins of offshore West Africa (Angola and Nigeria)