

# Tiffany L. Caudle

## Professional Summary

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### Professional Preparation

#### Academic Background

M.S. Geology, University of South Florida, May 2000

B.S. Geology, Juniata College, Huntingdon, Pennsylvania, May 1998

#### Professional Appointments

Research Scientist Associate, Bureau of Economic Geology, The University of Texas at Austin  
(June 2000-Present)

Studies on shoreline change and beach erosion in Texas, conducting fieldwork using an electronic total station and high-accuracy GPS and analyzing field data using a variety of computer software. Coordinator for the Texas High School Coastal Monitoring Program.

#### Theses

Effect of El Niño (1997-98) on the Peninsular Gulf Coast of Florida: Tampa, Florida, University of South Florida, M.S. thesis, 103 p., 2000

### Areas of Expertise

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Coastal geology

### Service

#### Outreach Activities

Hurricanes and the Texas coast: presented to Austin Earth Science Zoomerama 2020, Austin, Tex., October 29, 2020.

Hurricanes: presented to Jackson School of Geosciences and Dell Medical School's GeoHealth Summer Camp, Austin, Tex., August 4, 2020.

The Texas High School Coastal Monitoring Program and Virtual Barrier Island: presented to Groundwater to the Gulf Summer Institute, presented at Matagorda Bay Nature Park, Matagorda, Tex., June 28, 2011.

Impacts of sea level rise on the Texas Coastal Zone: presented at International Conference on Sea Level Rise in the Gulf of Mexico: Impacts, Adaptations, and Management, Corpus Christi, Tex., March 2, 2010.

Impacts of sea level rise on the Texas Coastal Zone: presented at Conference for the Advancement of Science Teaching, Galveston, Tex., November 5, 2009.

The Texas Coastal Zone: bringing the coast to the classroom: presented at Conference for the Advancement of Science Teaching, Corpus Christi, Tex., November 4, 2004.

The Texas Coastal Zone: bringing the coast to the classroom and field activities on San Jose Island: presented to GK-12 Summer Course, presented at Marine Science Institute, The University of Texas at Austin, Port Aransas, Tex., June 9, 2003.

## Proposal Review Panels Participation

Journal of Coastal Research (Article), 2017

Shore & Beach (Article), 2013

## Teaching and Advising

### Field Trips Leadership

Lead Instructor, GeoFORCE Texas 9th Grade Academy (Southwest students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., and Texas Coast, June 15-21, 2019.

Lead Instructor, GeoFORCE Texas 9th Grade Academy (Houston students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., and Texas Coast, June 1-7, 2019.

Lead Instructor, GeoFORCE Texas 9th Grade Academy (Southwest students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., and Texas Coast, June 16-22, 2018.

Lead Instructor, GeoFORCE Texas 9th Grade Academy (Houston students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., and Texas Coast, June 2-8, 2018.

Lead Instructor, GeoFORCE Texas 9th Grade Academy (Southwest students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., and Texas Coast, June 2017.

Lead Instructor, GeoFORCE Texas 9th Grade Academy (Southwest students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., and Texas Coast, June 2016.

Lead Instructor, STEMFORCE 9th Grade Academy (Dallas and Austin students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., and Florida Coast, June 2015.

Lead Instructor, GeoFORCE 10th Grade Academy (Southwest students), The University of Texas at Austin, Jackson School of Geosciences, Texas Coast, July 2014.

Lead Instructor, GeoForce 11th Grade Young Geoscientists (Houston students): The University of Texas at Austin, Jackson School of Geosciences, Austin, Texas, June 2013.

Lead Instructor, GeoForce 10th Grade Young Geoscientists (Houston students): The University of Texas at Austin, Jackson School of Geosciences, Port Aransas, Texas, July 2011.

Lead Instructor, GeoForce 9th Grade Young Geoscientists (Southwest students): The University of Texas at Austin, Jackson School of Geosciences, Austin, Texas, June 2011.

Lead Instructor, GeoForce 9th Grade Academy (Southwest students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., July 2010.

Lead Instructor, GeoForce 10th Grade Young Geoscientists (Houston students): The University of Texas at Austin, Jackson School of Geosciences, Port Aransas, Texas, June 2010.

Lead Instructor, GeoForce 9th Grade Academy (Southwest students), The University of Texas at Austin, Jackson School of Geosciences, Austin, Tex., July 2009.

Lead Instructor, GeoForce 10th Grade Young Geoscientists (Houston students): The University of Texas at Austin, Jackson School of Geosciences, Port Aransas, Texas, June 2009.

Lead Instructor, GeoForce 10th Grade Young Geoscientists (Southwest students): The University of Texas at Austin, Jackson School of Geosciences, Port Aransas, Texas, June 2008.

Lead Instructor, GeoForce 10th Grade Young Geoscientists (Southwest students): The University of Texas at Austin, Jackson School of Geosciences, Port Aransas, Texas, June 2007.

Lead Instructor, GeoForce 10th Grade Young Geoscientists (Southwest students): The University of Texas at Austin, Jackson School of Geosciences, Port Aransas, Texas, June 2006.

## Presentations

### Invited Presentations

Texas Coastal Environments, Processes, and Research: presented to OnRamps Earth, Wind, and Fire course Instructors, presented at OnRamps Fall Professional Learning Institute, Austin, Tex., October 17, 2023.

The Texas High School Coastal Monitoring Program: presented to Coastal States Organization, presented at Fall Membership Meeting, South Padre Island, Tex., November 7, 2019.

### Presentations

Shoreline Movement in the Galveston Bay System, Upper Texas Coast, 1930-2022: presented to American Shore and Beach Preservation Association, presented at National Coastal Conference, Galveston, Texas, August 26-29, 2024.

The Texas High School Coastal Monitoring Program: 26 years of engaging students in coastal research: presented to American Shore and Beach Preservation Association, presented at National Coastal Conference, Galveston, Texas, August 26-29, 2024.

Shoreline Movement in the Galveston Bay System, Upper Texas Coast, 1930 to 2022: presented to Texas Chapter of the American Shore and Beach Preservation Association, presented at 2024 Coastal Symposium, Corpus Christi, Texas, April 11, 2024.

Texas High School Coastal Monitoring Program: presented to Bureau of Economic Geology, presented at Summer Seminar Series, Bureau of Economic Geology, July 30, 2021.

Shoreline movement along the Texas Gulf Coast, 1930's to 2019: presented to General Land Office, Austin, Tex., February 21, 2020.

Engaging Texas Students in the Study of the Coastal Environment: presented to American Shore and Beach Preservation Association, presented at 2018 National Coastal Conference, Galveston, Texas, November 1, 2018.

Rapid response on the Texas coast: acquiring post-Harvey lidar and imagery to assess storm impact and monitor recovery: presented to Texas Chapter American Shore & Beach Preservation Association, presented at ASBPA Texas Chapter 2018 Symposium, Corpus Christi, Texas, April 24, 2018.

Involving Texas students in coastal science: presented to Texas Chapter American Shore & Beach Preservation Association, presented at ASBPA Texas Chapter 2017 Symposium, Port Aransas, Texas, April 25, 2017.

Measurement and Characterization of Bay Shorelines on the Central Texas Coast: presented at American Shore and Beach Preservation Association National Coastal Conference, Long Branch, NJ, October 26-28, 2016.

Beach and dune analysis using Chiroptera imaging system, South Padre and Brazos Islands, Texas Gulf Coast: presented at Texas Beach and Dune Forum, Corpus Christi, Tex., September 25, 2015.

Texas High School Coastal Monitoring Program: presented at Texas Beach and Dune Forum, Corpus Christi, Tex., September 25, 2015.

The Bureau of Economic Geology as provider of critical data from coastal environments for the State of Texas: presented to Bureau of Economic Geology Visiting Committee, Austin, Tex., August 18, 2015.

Texas student involvement in coastal monitoring studies: presented at American Shore and Beach Preservation Association National Coastal Conference, South Padre Island, Texas, October 2013.

Tracking shoreline and geomorphic-unit change on South Padre Island, Texas, using Chiroptera mapping system: presented at American Shore and Beach Preservation Association National Coastal Conference, South Padre Island, Texas, October 2013.

Pre-College Student Involvement in Texas Coastal Research: Gulf Coast Association of Geological Societies, Austin, Texas, October 2012.

Developing a barrier island geohazard map: Galveston Island, Texas: poster presented at Coastal Zone 07, Portland, Oregon, July 2007.

Texas initiatives for increasing public awareness of coastal processes: presented at Coastal Zone 07, Portland, Oregon, July 2007.

Visualizing the Texas coast: presented at The Geospatial Technology Conference for Coastal Professionals, Myrtle Beach, South Carolina, March 5-8, 2007.

Effect of El Niño (1997-98) on the Peninsular Gulf Coast of Florida: presented at Geological Society of America Annual Meeting and Exposition, Denver, October 27, 1999.

## Activities of a Professional Nature

### Professional Societies

American Shore & Beach Preservation Association

Geological Society of America

## Publications

### Peer Reviewed Journal Articles

Caudle, T., Paine, J. G., Andrews, J. R., and Saylam, K., 2019, Beach, dune, and nearshore analysis of southern Texas Gulf Coast using Chiroptera LIDAR and imaging system: *Journal of Coastal Research*, v. 35, no. 2, p. 251-268, <http://doi.org/10.2112/JCOASTRES-D-18-00069.1>.

Caudle, T., and Paine, J. G., 2017, Applications of coastal data collected in the Texas High School Coastal Monitoring Program (THSCMP): *Journal of Coastal Research*, v. 33, no. 3, p. 738-746, <http://doi.org/10.2112/JCOASTRES-D-16-00033.1>.

Paine, J. G., Caudle, T., and Andrews, J. R., 2017, Shoreline and sand storage dynamics from annual airborne lidar surveys, Texas Gulf Coast: *Journal of Coastal Research*, v. 33, no. 3, p. 487-506, <http://doi.org/10.2112/JCOASTRES-D-15-00241.1>.

Paine, J. G., Mathew, S., and Caudle, T., 2012, Historical shoreline change through 2007, Texas Gulf Coast: rates, contributing causes, and Holocene context: *GCAGS Journal*, v. 1, p. 13-26.

Hepner, Tiffany, and Davis, R. A., Jr., 2004, Effect of El Niño (1997-98) on beaches of the peninsular Gulf Coast of Florida: *Journal of Coastal Research*, v. 20, no. 3, p. 776-791.

Gutiérrez, Roberto, Gibeaut, J. C., Smyth, R. C., Hepner, Tiffany, Andrews, J. R., Weed, C., Gutelius, Bill, and Mastin, M., 2001, Precise airborne LIDAR surveying for coastal research and geohazards applications: *International Archives of Photogrammetry and Remote Sensing*, v. 34, part 3/W4, p. 185-192.

### Non Peer Reviewed Journal Articles

Paine, J. G., Andrews, J. R., Saylam, K., Tremblay, T. A., Averett, A. R., Caudle, T. L., Meyer, T., and Young, M. H., 2013, Airborne lidar on the Alaskan North Slope: wetlands mapping, lake volumes, and permafrost features: *The Leading Edge*, v. 32, no. 7, p. 798-805.

Caudle, Tiffany, and Paine, J. G., 2012, Pre-college student involvement in Texas coastal research: Gulf Coast Association of Geological Societies Transactions, v. 62, p. 27-38.

Caudle, Tiffany, 2009, Texas high school coastal monitoring, in Laubach, S. E., and Tinker, S. W., eds., 2009, Earth's art: celebrating the Centennial of the Bureau of Economic Geology, 1909-2009: The University of Texas at Austin, Bureau of Economic Geology, p. 44-45.

Collins, E. W., Tremblay, T. A., Raney, J. A., Paine, J. G., Hovorka, S. D., Gutiérrez, Roberto, Smyth, R. C., and Hepner, Tiffany, 2004, Geologic mapping and construction of digital map data sets of the Edwards aquifer region, Central Texas, in Hovorka, Sue, ed., Edwards water resources in Central Texas: retrospective and prospective: South Texas Geological Society and Austin Geological Society, CD-ROM, p. 1-15.

Hepner, T. L., and Gibeaut, J. C., 2004, Tracking post-storm beach recovery using data collected by Texas high school students: Shore & Beach, v. 72, no. 4, p. 5-9

Gibeaut, J. C., Hepner, T. L., Waldinger, Rachel, Andrews, J. R., Smyth, R. C., and Gutiérrez, Roberto, 2003, Geotubes for temporary erosion control and storm surge protection along the Gulf of Mexico shoreline of Texas, in Proceedings, 13th Biennial Coastal Zone Conference: Coastal Zone 3: Coastal Zone Management through Time: Baltimore, National Oceanic and Atmospheric Administration, 5 p., CD-ROM.

Gibeaut, J. C., White, W. A., Smyth, R. C., Andrews, J. R., Tremblay, T. A., Gutiérrez, Roberto, Hepner, T. L., and Neuenschwander, Amy, 2003, Topographic variation of barrier island subenvironments and associated habitats, in Coastal Sediments '03: Crossing disciplinary boundaries: Proceedings, Fifth International Symposium on Coastal Engineering and Science of Coastal Sediment Processes, Clearwater Beach, Florida, May 18-23, 10 p., CD-ROM.

Gibeaut, J. C., Gutiérrez, Roberto, and Hepner, Tiffany, 2002, Threshold conditions for episodic beach erosion along the southeast Texas coast: Gulf Coast Association of Geological Societies Transactions, v. 52, p. 323-335.

## Non Peer Reviewed Atlases and Maps

Caudle, T., and Paine, J. G., 2024, Geologic map of the Oak Island quadrangle, Texas Gulf of Mexico coast: The University of Texas at Austin, Bureau of Economic Geology, Open-File Map, no. 292, 1:24,000.

Caudle, T., and Paine, J. G., 2023, Geologic map of Galveston East Bay, upper Texas Gulf of Mexico coast: The University of Texas at Austin, Bureau of Economic Geology, Open-File Map, no. 275, 1:50,000.

Caudle, T., and Paine, J. G., 2023, Geologic map of the Anahuac quadrangle, Texas Gulf of Mexico coast: The University of Texas at Austin, Bureau of Economic Geology, Open-File Map, no. 266, 1:24,000.

Caudle, T., and Paine, J. G., 2022, Geologic map of the Mud Lake quadrangle, Texas Gulf of Mexico Coast: The University of Texas at Austin, Bureau of Economic Geology, Open-File Map, no. 265, 1:24,000.

Caudle, T., Paine, J. G., and Andrews, J. R., 2022, Geologic map of the High Island quadrangle, Texas Gulf of Mexico Coast: The University of Texas at Austin, Bureau of Economic Geology, Open-File Map, no. 256, 1:24,000.

Paine, J. G., Costard, L., and Caudle, T., 2022, Geologic map of the Palacios SE quadrangle, Texas Gulf of Mexico Coast: The University of Texas at Austin, Bureau of Economic Geology, Open-File Map, no. 258, 1:24,000.

Caudle, T., and Paine, J. G., 2021, Geologic map of the Frozen Point and Caplen quadrangles, Texas Gulf of Mexico coast: Bureau of Economic Geology, The University of Texas at Austin, Open-File Map, no. 249, 1:24,000.

Caudle, T., and Paine, J. G., 2020, Geologic map of the Lake Stephenson and part of the Smith Point quadrangles, Texas Gulf of Mexico coast: The University of Texas at Austin, Bureau of Economic Geology, 1:24,000.

Caudle, T. L., and Paine, J. G., 2019, Geologic map of the Flake quadrangle, Texas Gulf of Mexico Coast: Bureau of Economic Geology, The University of Texas at Austin, Open-File Map, no. 238, 1:24,000.

Caudle, T. L., Paine, J. G., Andrews, J. R., and Suarez, J., 2014, Gulf of Mexico shoreline change, Bolivar Peninsula, Texas: Bolivar Roads to High Island: Bureau of Economic Geology, The University of Texas at Austin, PS0012, 1:24,000.

Caudle, T. L., Paine, J. G., Andrews, J. R., and Suarez, J., 2014, Gulf of Mexico shoreline change, Brazos River to San Luis Pass, Texas: Bureau of Economic Geology, The University of Texas at Austin, PS0015, 1:24,000.

Caudle, T. L., Paine, J. G., Andrews, J. R., and Suarez, J., 2014, Gulf of Mexico shoreline change, eastern Matagorda Peninsula, Texas: Colorado River to Brazos River: Bureau of Economic Geology, The University of Texas at Austin, PS0011, 1:24,000.

Caudle, T. L., Paine, J. G., Andrews, J. R., and Suarez, J., 2014, Gulf of Mexico shoreline change, Galveston Island, Texas: San Luis Pass to Bolivar Roads: Bureau of Economic Geology, The University of Texas at Austin, PS0014, 1:24,000.

Caudle, T. L., Paine, J. G., Andrews, J. R., and Suarez, J., 2014, Gulf of Mexico shoreline change, High Island to Sabine Pass, Texas: Bureau of Economic Geology, The University of Texas at Austin, PS0016, 1:24,000.

Caudle, T. L., Paine, J. G., Andrews, J. R., and Suarez, J., 2014, Gulf of Mexico shoreline change, Mustang Island and North Padre Island, Texas: northern Padre Island to Aransas Pass: Bureau of Economic Geology, The University of Texas at Austin, PS0013, 1:24,000.

Caudle, T. L., Paine, J. G., Andrews, J. R., and Suarez, J., 2014, Gulf of Mexico shoreline change, southern Padre Island and Brazos Island, Texas: Rio Grande (U.S./Mexico border) to Port Mansfield Channel: Bureau of Economic Geology, The University of Texas at Austin, PS0010, 1:24,000.

Caudle, T. L., Paine, J. G., Andrews, J. R., and Suarez, J., 2014, Gulf of Mexico shoreline change, western Matagorda Peninsula, Texas: Pass Cavallo to Colorado River: Bureau of Economic Geology, The University of Texas at Austin, PS0017, 1:24,000.

Tremblay, T. A., Caudle, Tiffany, and White, W. A., 2009, Geoenvironmental map of Big Hill Bayou quadrangle, Texas Gulf of Mexico Coast: The University of Texas at Austin, Bureau of Economic Geology, Open File Geologic Map, scale 1:24,000.

Tremblay, T. A., Caudle, Tiffany, and White, W. A., 2009, Geoenvironmental map of Port Arthur South quadrangle, Texas Gulf of Mexico Coast: The University of Texas at Austin, Bureau of Economic Geology, Open File Geologic Map, scale 1:24,000.

Tremblay, T. A., White, W. A., and Caudle, Tiffany, 2009, Geoenvironmental map of Clam Lake quadrangle, Texas Gulf of Mexico Coast: he University of Texas at Austin, Bureau of Economic Geology, Open File Geologic Map, scale 1:24,000.

Tremblay, T. A., White, W. A., and Caudle, Tiffany, 2009, Geoenvironmental map of Sabine Pass and Texas Point quadrangles, Texas Gulf of Mexico Coast: The University of Texas at Austin, Bureau of Economic Geology, Open File Geologic Map, scale 1:24,000.

## Guidebooks

Caudle, T., Raney, J., and Clift, S. J., 2016, Guidebook for geoscience field trip: Austin, Port Aransas, and Galveston, Texas: Jackson School of Geosciences, The University of Texas at Austin, GeoForce Texas 9th-Grade Academy, 124 p.

Caudle, Tiffany, 2012, Guidebook for Geoscience Field Course to Mustang Island, Texas: The University of Texas at Austin, Jackson School of Geosciences GeoForce Texas 10th Grade Young Geoscientists, 29 p.

Raney, J. A., and Caudle, Tiffany, 2012, Guidebook for Geoscience Field Trip, Austin, Texas, and Southern Florida: Clastics and Carbonates: The University of Texas at Austin, Jackson School of Geosciences GeoForce Texas 9th Grade Academy, 129 p.

Hepner, Tiffany, 2006, GeoForce Texas: 10th Grade Young Geoscientists: Guidebook for geoscience field trip to Mustang Island, Texas: John A. and Katherine G. Jackson School of Geosciences, The University of Texas at Austin, and Southwest Junior College 27 p.

## Contract Reports

Caudle, T. L., and Paine, J. G., 2024, Historical Shoreline Movement in Galveston, Trinity, East and West Bays on the Upper Texas Gulf Coast: Bureau of Economic Geology, The University of Texas at Austin, Final prepared for Texas General Land Office, under contract no. 23-020-016-D610, 94 p.

Paine, J. G., Andrews, J. R., Caudle, T., Elliott, B. A., Grunau, B., Helper, M. A., Hunt, B., McCall, L., Morris, J., Werner, C. W., and Woodruff, C. M., Jr., 2024, Texas STATEMAP program summary, 2023-2024: The University of Texas at Austin, Bureau of Economic Geology, Final Technical Report prepared for U.S. Geological Survey, under contract no. G23AC000581, 35 p.

Caudle, T., 2023, Texas High School Coastal Monitoring Program: 2022-2023: Bureau of Economic Geology, final report prepared for Texas General Land Office, under contract no. 23-020-015-D609, 158 p.

Paine, J. G., Andrews, J. R., Caudle, T., Elliott, B. A., Grunau, B., Helper, M. A., Hunt, B., Morris, J., Werner, C. W., Woodruff, C. M., Jr., and McCall, L., 2023, Texas STATEMAP program summary, FY22 (2022-2023): The University of Texas at Austin, Bureau of Economic Geology, Final Technical Report prepared for U.S. Geological Survey, under contract no. G22AC00495, 35 p.

Caudle, T., 2022, Texas High School Coastal Monitoring Program: 2021-2022: Bureau of Economic Geology, final report prepared for Texas General Land Office, under contract no. 21-060-011-C671, 159 p.

Paine, J. G., Caudle, T., Costard, L., Hunt, B., Woodruff, C. M., Jr., Andrews, J. R., McCall, L., Rogers, H., and Werner, C., 2022, Texas STATEMAP program summary, FY21 (2021-2022): The University of Texas at Austin, Bureau of Economic Geology, Final Technical Report prepared for U.S. Geological Survey, under contract no. G21AC10838, 29 p.

Caudle, T., 2021, Texas High School Coastal Monitoring Program: 2020-2021: The University of Texas at Austin, Bureau of Economic Geology, final prepared for Texas General Land Office, under contract no. 20-039-000-B747, 153 p.

Paine, J. G., Caudle, T., and Andrews, J. R., 2021, Shoreline movement and beach and dune volumetrics along the Texas Gulf Coast, 1930s to 2019: Bureau of Economic Geology, The University of Texas at Austin, final report prepared for Texas General Land Office, under contract no. 16-201-0000, 101 p.

Paine, J. G., Caudle, T., Costard, L., Hunt, B., Woodruff, C. M., Jr., McCall, L., and Masterson, A. R., 2021, Texas STATEMAP program summary, FY20 (2020-2021): The University of Texas at Austin, Bureau of Economic Geology, final technical report prepared for U.S. Geological Survey, under contract no. G20AC00313, 37 p.

Paine, J. G., Caudle, T. L., Costard, L., Elliott, B. A., and Woodruff, C. M., Jr., 2020, Texas STATEMAP program summary, FY19 (2019-2020): The University of Texas at Austin, Bureau of Economic Geology, final technical report prepared for U.S. Geological Survey, under contract

no. G19AC00225, 19 p.

Caudle, T., 2019, Texas high school coastal monitoring program: 2018-2019: Bureau of Economic Geology, The University of Texas at Austin, final report prepared for Texas General Land Office, under contract no. 18-095-000-A606, 140 p.

Paine, J. G., Caudle, T., Elliott, B. A., Woodruff, C. M., Jr., and Costard, L., 2019, Texas STATEMAP program summary, FY18 (2018-2019): Bureau of Economic Geology, The University of Texas at Austin, Final Technical Report prepared for U.S. Geological Survey, under contract no. G18AC00195, 17 p.

Caudle, T., 2018, Texas High School Coastal Monitoring Program: 2017-2018: Final Report prepared for Texas General Land Office, under contract no. 17-188-000-9825, 127 p.

Paine, J. G., and Caudle, T., 2018, Shoreline movement along the Texas Gulf Coast, 1930s to 2016: The University of Texas at Austin, Bureau of Economic Geology, Final Report prepared for General Land Office, under contract no. 16-201-000, 59 p.

Paine, J. G., Collins, E. W., Caudle, T., and Costard, L., 2018, Powderhorn Ranch geoenvironmental atlas: Bureau of Economic Geology, The University of Texas at Austin, Final Report prepared for General Land Office, under contract no. 17-186-000-9823, 73 p.

Caudle, T., 2017, Texas High School Coastal Monitoring Program: 2016-2017: Final Report prepared for Texas General Land Office, under contract no. 16-067-000-9111, 116 p.

Caudle, T., 2016, Texas High School Coastal Monitoring Program: 2015-2016: Final Report prepared for Texas General Land Office, under contract no. 15-034-000-8378, 89 p.

Paine, J. G., Caudle, T., and Andrews, J. R., 2016, Shoreline movement in the Copano, San Antonio, and Matagorda Bay systems, Central Texas coast, 1930s to 2010s: Final Report prepared for General Land Office, under contract no. 13-258-000-7485, 72 p.

Paine, J. G., Caudle, T., and Andrews, J. R., 2016, Shoreline movement in the Copano, San Antonio, and Matagorda Bay systems, central Texas coast, 1930s to 2010s: prepared for General Land Office, under contract no. 13-258-000-7485, 72 p.

Caudle, T., 2015, Texas High School Coastal Monitoring Program: 2014-2015: Final Report prepared for Texas General Land Office, under contract no. 14-089-000-7957, 82 p.

Tremblay, T. A., Caudle, T. L., and Andrews, J. R., 2015, Colonial waterbird rookery island geoenvironmental mapping for oil spill response: final report prepared for the Texas General Land Office, Oil Spill Program: under contract no. GLO 13-438-000-7897, 26 p.

Caudle, Tiffany, 2014, Final report: Texas High School Coastal Monitoring Program: 2013-2014: The University of Texas at Austin, Bureau of Economic Geology, report to the Texas Coastal Coordination Council pursuant to NOAA Award No. NA12NOS4190021, final report prepared for General Land Office under contract no. 13-042-000-6909, June 2014. 86 p., 20 figs., 3 appendices.

Caudle, Tiffany, Tremblay, T. A., Paine, J. G., Andrews, J. R., Saylam, K., 2014, Final report: Beach and dune analysis using Chiroptera imaging system, South Padre and Brazos Islands, Texas Gulf Coast: The University of Texas at Austin, Bureau of Economic Geology, report to the Texas Coastal Coordination Council pursuant to NOAA Award No. NA12NOS4190021, final report prepared for General Land Office under contract no. 13-030-000-6895, June 2014, 68 p., 34 figs., 3 tables.

Paine, J. G., Caudle, T., and Andrews, J. R., 2014, Shoreline movement along the Texas Gulf coast, 1930's to 2012: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for General Land Office, under contract no. 09-074-000, 52 p.

Saylam, K., Andrews, J. R., Hupp, J. R., Caudle, T., Brown, R., Young, M. H., and Ekercin, S., 2014, Clark County Desert Conservation Program, Desert Tortoise Habitat Research, Lidar



Point Cloud Data, CIR Image Delivery & Calibration Report: Bureau of Economic Geology, The University of Texas at Austin, Data delivery report prepared for Clark County, Nevada, under contract no. 26-8274-8312, 18 p.

Caudle, T. L., 2013, Texas High School Coastal Monitoring Program: 2012-2013: Bureau of Economic Geology, The University of Texas at Austin, final report prepared for Texas Coastal Coordination Council, 77 p.

Paine, J. G., Andrews, J. R., Saylam, K., Tremblay, T. A., Young, M., Abolt, C., Bradford, B., Caudle, Tiffany, Meyer, T., and Neuenschwander, A. L., 2013, Determining wetlands distribution, lake depths, and topography using airborne lidar and imagery on the North Slope, Deadhorse area, Alaska: The University of Texas at Austin, Bureau of Economic Geology, final technical report prepared for Great Bear Petroleum Operating LLC, under, sponsored research agreement UTA12-0000752, 76 p.

Paine, J. G., Caudle, Tiffany, and Andrews, J. R., 2013, Shoreline, beach, and dune morphodynamics, Texas Gulf Coast: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the General Land Office under contract no. 09-242-000-3789, 64 p.

Caudle, T., 2012, Texas High School Coastal Monitoring Program: 2011-2012: The University of Texas at Austin, Bureau of Economic Geology, final project report prepared for Texas Coastal Coordination Council, 72 p.

Paine, J. G., Young, M. H., Andersson, D., Andrews, J. R., Averett, A. R., Caudle, Tiffany, Gustafsson, D., Kullenberg, P., and Tremblay, T. A., 2012, Determining wetlands distribution, lake depths, and topography using airborne lidar and imagery on the North Slope, Deadhorse Area, Alaska: The University of Texas at Austin, Bureau of Economic Geology, data-acquisition report prepared for Great Bear Petroleum Operating LLC, under Sponsored Research Agreement UTA120000752, 15 p.

Caudle, T., 2011, Texas High School Coastal Monitoring Program: 2010-2011: Ball, Palacios, Port Aransas, Port Isabel, and Van Vleck High Schools and Cunningham and Tidehaven Middle Schools: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the Texas Coastal Coordination Council, 70 p.

Paine, J. G., Mathew, Sojan, and Caudle, Tiffany, 2011, Texas Gulf shoreline change rates through 2007: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for General Land Office, under contract no. 10-041-000-3737, 38 p. + CD-ROM.

Caudle, Tiffany, 2010, Texas High School Coastal Monitoring Program: 2009-2010: The University of Texas at Austin, Bureau of Economic Geology, final project report prepared for Texas Coastal Coordination Council, 66 p.

Caudle, Tiffany, 2009, Texas High School Coastal Monitoring Program: 2007-2009: The University of Texas at Austin, Bureau of Economic Geology, final project report prepared for Texas Coastal Coordination Council, 56 p.

Collins, E. W., Tremblay, T. A., Caudle, T. L., Mathew, S., and Vincent, J., 2009, Summary report for the 2008-2009 STATEMAP Project: geologic mapping to support improved database development and understanding of urban corridors, critical aquifers, and special areas of environmental concern in Texas: The University of Texas at Austin, Bureau of Economic Geology, contract report prepared for the U.S. Geological Survey, under cooperative agreement no. 08HQAG0097, 23 p. + 8 pls.

Hepner, T. L., and Gibeaut, J. C., 2007, Texas high School Coastal Monitoring Program: 2006-2007: Ball, Palacios, Port Aransas, Port Isabel, VanVleck High Schools and Tidehaven Middle Schools: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the Texas Coastal Coordination Council, pursuant to National Oceanic and Atmospheric Administration Award No. NA05NOS4190219, 52 p.

Collins, E. W., Tremblay, T. A., Gibeaut, J. C., Waldinger, R. L., White, W. A., Raney, J. A., Smyth, R. C., Hepner, T. A., Andrews, J. R., and Gutiérrez, Roberto, 2006, Summary report for the 2005-2006 STATEMAP Project: geologic mapping to support improved database development and understanding of urban corridors, critical aquifers, and special areas of environmental concern in Texas: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for U.S. Geological Survey, under cooperative agreement no. 05HQAG0046, 20 p. + maps.

Hepner, Tiffany, and Gibeaut, J. C., 2006, Texas High School Coastal Monitoring Program: Ball, Port Aransas, and Port Isabel High Schools, 2005-2006: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Texas Coastal Coordination Council, pursuant to National Oceanic and Atmospheric Administration Award No. NA04NOS4190058, 43 p.

Caudle, Tiffany, and Gibeaut, J. C., 2005, Texas High School Coastal Monitoring Program: Ball, Port Aransas, and Port Isabel High Schools, 2003-2005: The University of Texas at Austin, Bureau of Economic Geology, final project report prepared for Texas Coastal Coordination Council, 37 p.

White, W. A., Tremblay, T. A., Waldinger, R. L., Hepner, T. L., and Calnan, T. R., 2005, Status and trends of wetland and aquatic habitats on barrier islands, Freeport to East Matagorda Bay, and South Padre Island: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the Texas General Land Office and National Oceanic and Atmospheric Administration, under GLO contract nos. 04-044 and 04-045, a report of the Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA03NOS4190102, 100 p. + CD-ROM.

Hepner, Tiffany, and Gibeaut, J. C., 2004, Texas High School Coastal Monitoring Program: Ball, Port Aransas, and Port Isabel High Schools, 2002/2003: The University of Texas at Austin, Bureau of Economic Geology, final report of the Texas Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA17OZ2353, 29 p.

Gibeaut, J. C., Hepner, Tiffany, Waldinger, R. L., Andrews, J. R., Smyth, R. C., and Gutiérrez, Roberto, 2003, Geotextile tubes along the upper Texas Gulf Coast, May 2000 to March 2003: The University of Texas at Austin, Bureau of Economic Geology, report of the Texas Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA07OZ0134, GLO Contract Mp/ 02-493 R, 102 p. + 3 pls.

Gibeaut, J. C., Waldinger, Rachel, Hepner, Tiffany, Tremblay, T. A., and White, W. A., 2003, Changes in bay shoreline position, West Bay system, Texas: The University of Texas at Austin, Bureau of Economic Geology, report of the Texas Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA07OZ0134, under GLO contract no. 02-225R, 27 p.

Hepner, T. L., and Gibeaut, J. C., 2003, Texas high school coastal monitoring program: Ball, Port Aransas, and Port Isabel high schools, 2001/2002: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Texas Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA17OZ1140, 29 p.

Smyth, R. C., Gibeaut, J. C., Andrews, John, Hepner, Tiffany, and Gutiérrez, Roberto, 2003, The Texas Shoreline Change Project: coastal mapping of West and East Bays in the Galveston Bay System using airborne lidar: The University of Texas at Austin, final report prepared for the Texas General Land Office, under GLO Contract Number 02-520 C, 41 p.

Gibeaut, J. C., Hepner, Tiffany, Waldinger, R. L., Andrews, J. R., Smyth, R. C., and Gutiérrez, Roberto, 2002, Geotubes along the Gulf shoreline of the upper Texas coast: observations during 2001: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Texas Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA97OZ0179, under GLO contract number 01-597 R, 24 p. + apps.

Hepner, Tiffany, and Gibeaut, J. C., 2002, Texas High School Coastal Monitoring Program: Ball, Port Aransas, and Port Isabel High Schools, 2000/2001: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for Texas Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA07OZ0134, 27 p.

Gibeaut, J. C., Hepner, Tiffany, Waldinger, R. L., Andrews, J. R., Gutiérrez, Roberto, Tremblay, T. A., and Smyth, R. C., 2001, Changes in Gulf shoreline position, Mustang and North Padre Islands, Texas: The University of Texas at Austin, Bureau of Economic Geology, final report prepared for the Texas Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration, under Award No. NA97OZ0179 and GLO Contract No. 00-002R, 28 p.

Gibeaut, J. C., White, W. A., Hepner, Tiffany, Gutiérrez, Roberto, Tremblay, T. A., Smyth, R. C., and Andrews, J. R., 2000, Texas Shoreline Change Project: Gulf of Mexico Shoreline change from the Brazos River to Pass Cavallo: The University of Texas at Austin, Bureau of Economic Geology, report prepared for the Texas Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA87OZ0251, 32 p.

## Published Abstracts

Paine, J. G., Caudle, T., and Andrews, J. R., 2021, Texas Gulf shoreline movement, land loss, and beach and dune volumes and peak elevations through 2019 (abs.): GeoGulf Transactions, Austin, Texas, October 27-29, 2021, v. 71, p. 469.

Paine, J. G., Averett, A. R., Andrews, J. R., Caudle, T., Hupp, J., and Saylam, K., 2019, Rapid response on the Texas coast: acquiring post-Harvey lidar and imagery to assess storm impact and monitor recovery (abs.): 45th International Association of Aquatic and Marine Science Libraries and Information Centers (IAMSLIC) Annual Conference and 29th SAIL Regional Meeting, Port Aransas, Texas, October 20-25, p. 22.

Caudle, T., 2018, Engaging Texas students in the study of coastal environments (abs.): National Coastal Conference, American Shore & Beach Preservation Association, Galveston, Tex., October 29-November 2, 2018, No. 3B-3.

Paine, J. G., and Caudle, T., 2018, Shoreline movement along the Texas Gulf Coast, 1930s to 2016 (abs.): 2018 National Coastal Conference, American Shore & Beach Preservation Association, October 29-November 2, 2018, Galveston, Texas, no. 5F-3.

Andrews, J. R., Paine, J. G., Caudle, T., and Saylam, K., 2016, Topographic and bathymetric lidar applications in coastal research at the Bureau of Economic Geology (abs.): Gulf Coast Association of Geological Societies Transactions, v. 66, p. 911.

Moore, S., Paine, J. G., Caudle, T., Costley, R., Flaig, P. P., Frébourg, G., and Scanlon, B. R., 2015, The approach and success of the GeoFORCE program at the Jackson School of Geosciences for closing the diversity gap in geosciences (abs.): Geological Society of America Abstracts with Programs, v. 47, no. 7, p. 108.

Paine, J. G., Collins, E. W., Yang, D., Andrews, J. R., Averett, A. R., Caudle, T., and Saylam, K., 2015, Quantifying monthly to decadal subsidence and assessing collapse potential in a Texas oilfield using airborne lidar, radar interferometry, and microgravity (abs.): American Association of Petroleum Geologists and Society of Exploration Geophysicists International Conference and Exhibition, Melbourne, Australia, September 13-16, 2015, no. 2212411, 1 p.

Paine, J. G., Collins, E. W., Yang, D., Andrews, J. R., Caudle, T., and Saylam, K., 2015, Quantifying subsidence and assessing sinkhole potential in the Hendrick Field, Permian Basin, Texas, using airborne lidar, radar interferometry, and microgravity (abs.): American Association of Petroleum Geologists Annual Convention and Exhibition, Denver, Colorado, May 31-June 3, abstract no. 2102176, CD-ROM, 1 p.

Paine, J. G., Collins, E. W., Yang, Dochul, Andrews, J. R., Averett, A. R., Caudle, T., and Saylam, K., 2015, Quantifying monthly to decadal subsidence and assessing collapse potential

near the Wink sinkholes, West Texas, using airborne lidar, radar interferometry, and microgravity (abs.): Geological Society of America, South-Central Section 49th Annual Meeting.

Paine, J. G., Andrews, J. R., Saylam, K., Averett, A. R., Caudle, T., Collins, E. W., and Yang, D., 2014, Quantifying monthly to decadal subsidence rates and magnitudes near the Wink sinkholes, west Texas, using airborne lidar and radar interferometry (abs.): Proceedings, 27th Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), Boston, Massachusetts, March 16-20.

Paine, J. G., Caudle, T., and Andrews, J. R., 2014, Historical to recent Texas Gulf shoreline movement and its postglacial context (abs.): Geological Society of America Abstracts with Programs, v. 46, no. 6, p. 484.

Paine, J. G., Collins, E. W., Yang, Dochul, Andrews, J. R., Averett, A. R., Caudle, T., and Saylam, K., 2014, Quantifying monthly to decadal subsidence and assessing collapse potential near the Wink sinkholes, west Texas, using airborne lidar, radar interferometry, and microgravity [invited] (abs.): American Geophysical Union Fall Meeting, San Francisco, California, December 18, 2014.

Caudle, Tiffany, and Paine, J. G., 2013, Texas student involvement in coastal monitoring studies (abs.): in American Shore and Beach Preservation Association, Digital Program with Abstracts, October 23-25, [http://www.asbpa.org/conferences/conf\\_fall\\_13\\_sessions.htm](http://www.asbpa.org/conferences/conf_fall_13_sessions.htm).

Caudle, Tiffany, Tremblay, T. A., Paine, J. G., Andrews, J. R., and Saylam, K., 2013, Tracking shoreline and geomorphic-unit change on South Padre Island, Texas, using newest generation of lidar mapping and imagery capture (abs.): in American Shore and Beach Preservation Association, Digital Program with Abstract, October 23-25, [http://www.asbpa.org/conferences/conf\\_fall\\_13\\_sessions.htm](http://www.asbpa.org/conferences/conf_fall_13_sessions.htm).

Paine, J. G., and Caudle, Tiffany, 2013, Historical shoreline change, Texas Gulf Coast: rates, contributing causes, and postglacial context (abs.): 2013 ASPBA National Coastal Conference, Oct. 22-25, South Padre Island, Texas.

Paine, J. G., Andrews, J. R., Saylam, K., Tremblay, T. A., Averett, A. R., Caudle, Tiffany, Meyer, T., and Young, M. H., 2013, Airborne lidar on the Alaskan North Slope: wetlands mapping, lake volumes, and permafrost features (abs.): Extended Abstracts, Society of Exploration Geophysicists Annual Meeting, DOI <http://dx.doi.org/10.1190/segam2013-1488.1>, p. 5250-5251.

Paine, J. G., Young, M. H., Saylam, K., Andrews, J. R., Averett, A. R., Caudle, T., Karlsson, T., Meyer, T., and Tremblay, T. A., 2013, Determining wetlands distribution, lake depths, and topography using airborne lidar and imagery on the North Slope, Alaska (abs.): Proceedings of the Symposium on the Application of Geophysics to Engineering and Environmental Problems, Denver, Colorado.

Mathew, Sojan, Paine, J. G., Caudle, T. L., and Reyes, R., 2012, Annual to decadal morphodynamics of the beach-foredune system along the Texas upper coast (abs.), in American Association of Geographers Annual Conference, New York, February 24-28.

Collins, E. W., Tremblay, T. A., Caudle, Tiffany, Vincent, Jeffrey, and Mathew, Sojan, 2009, Texas STATEMAP Program (abs.): Geological Society of America, South-Central Section, Abstracts with Programs, v. 41, no. 2, p. 31.

Mathew, S., Tremblay, T. A., Caudle, T. H., and Andrews, J. R., 2009, 3D-morphological change analysis using multi-temporal lidar and digital photogrammetric data along Bolivar Peninsula (abs.), in Texas Coastal Conference, Galveston, Texas, USA.

Gibeaut, J. C., Tremblay, T. A., Waldinger, Rachel, Collins, E. W., Smyth, R. C., White, W. A., Hepner, T. L., Andrews, J. R., and Gutiérrez, Roberto, 2007, Developing a barrier island geohazards map: Galveston Island, Texas (abs.), in Coastal Zone 07 final program, Portland, Oregon, July 22-26, CD-ROM.

Hepner, Tiffany, and Gibeaut, J. C., 2007, Texas initiatives for increasing public awareness of coastal research (ext. abs.), in Coastal Zone 07 final program, Portland, Oregon, July 22-26, CD-ROM.

Hepner, Tiffany, Gibeaut, J. C., and Andrews, J. R., 2007, Visualizing the Texas coast (abs.), in The Geospatial Technology Conference for Coastal Professionals: coastal geotools, March 5-8, Myrtle Beach, South Carolina, p. 41.

Gibeaut, J. C., Gutiérrez, R., Hepner, T. L., and Andrews, J. R., 2006, Effects of Hurricane Rita on Texas beaches (abs.): Eos Transactions AGU, v. 87, no. 36, Ocean Sciences Meeting Supplement, Abstract OS16H-03.

Hepner, T. L., and Gibeaut, J. C., 2005, The Texas High School Coastal Monitoring Program: a program in education, public awareness, and coastal management (ext. abs.), in Coastal zone 05: Proceedings of the 14th Biennial Coastal Zone Conference, New Orleans, July 17-21: NOAA Coastal Services Center, CD-ROM.

Gibeaut, J. C., White, W. A., Gutiérrez, Roberto, Waldinger, Rachel, Andrews, J. R., Hepner, T. L., Smyth, R. C., and Tremblay, T. A., 2004, The Texas Shoreline Change Project: combining lidar, historical photography, and ground surveys to measure shoreline change rates along bay and gulf shorelines (abs.), in 5th Biennial Texas Coastal Issues Conference bios and abstracts: Texas General Land Office, Coastal Resources Program, CD-ROM.

Gibeaut, J. C., White, W. A., Smyth, R. C., Andrews, J. R., Tremblay, T. A., and Hepner, T. L., 2004, Topographic variation of barrier island wetlands: implications for modeling change during rising relative sea level (abs.), in 5th Biennial Texas Coastal Issues Conference bios and abstracts: Texas General Land Office, Coastal Resources Program, CD-ROM.

Hovorka, S. D., Andrews, J. R., Clift, S. J., Hepner, T. L., Gibeaut, J. C., Rodgers, S. D., Jennette, D. C., and Raney, J. A., 2004, Update on public and K-12 programs at the Bureau of Economic Geology, Texas (abs.): Geological Society of America Abstracts with Programs, v. 36, no. 5, p. 349.

Gibeaut, J. C., White, W. A., Gutiérrez, Roberto, Waldinger, Rachel, Andrews, J. R., Hepner, T. L., Smyth, R. C., and Tremblay, T. A., 2003, The Texas Shoreline Change Project: combining lidar, historical photography, and ground surveys to measure shoreline change rates along bay and Gulf of Mexico shorelines (abs.), in Proceedings, 3rd Biennial Coastal GeoTools Conference, Charleston, South Carolina: NOAA Coastal Services Center, CD-ROM.

Smyth, R. C., Ellins, K. K., Bonal, Nedra, Hepner, Tiffany, Morris, Matthew, Christensen, Gail, Gulick, Sean, Dinan, Mae, Fennel, Timothy, and Thomas, Darwin, 2003, Cataclysms and catastrophes: engaging students to address real-world situations using scientific data analysis (abs.): Geological Society of America Abstracts with Programs, v. 35, no. 6, p. 123.

Gibeaut, J. C., Gutiérrez, Roberto, Hepner, Tiffany, Smyth, R. C., and Andrews, J. R., 2002, Shoreline change analysis using airborne lidar (abs.), in Proceedings, Shoreline Change Conference: Charleston, South Carolina, NOAA Coastal Services Center, May 7-9, unpaginated.

Gibeaut, J. C., White, W. A., Gutiérrez, Roberto, Waldinger, R. L., Andrews, J. R., Hepner, Tiffany, Smyth, R. C., and Tremblay, T. A., 2002, Measuring shoreline change along bays and oceans using historical aerial photography and airborne topographic LIDAR surveys (abs.): Gulf Coast Association of Geological Societies Transactions, v. 52, p. 336.

Gibeaut, J. C., Gutiérrez, Roberto, Hepner, Tiffany, Andrews, J. R., and Smyth, R. C., 2001, Shoreline mapping with airborne LIDAR (abs.), in Proceedings, 2nd Biennial Coastal GeoTools '01 Conference, Charleston, South Carolina, January 8-11, unpaginated.