

Jon Paul Pierre

Professional Summary

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Professional Preparation

Academic Background

M.S. Energy and Earth Resources, Jackson School of Geosciences, The University of Texas at Austin, August 2014

B.S. Agriculture and Forestry, Environmental Protection, West Virginia University, Morgantown, WV, 1995

Professional Appointments

Research Scientist Associate III, Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin (September 2016-Present)

Research Scientist Associate II, Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin (September 2014-August 2016)

Graduate Research Assistant, Bureau of Economic Geology, Jackson School of Geosciences, University of Texas at Austin (September 2012-August 2014)

General Manager, Sheerlund Forests Inc., Reading, Pa. (April 2000-August 2012)

Farm Manager, Robert Baker Nursery Company, West Suffield, Conn. (March 1999-March 2000)

Supervisor, Plant Culture/Pest Management/Irrigation, Greenleaf Nursery Company, Tarboro, N.C. (October 1998-February 1999)

Department Supervisor, Ingleside Plantation Nurseries, Oak Grove, Va. (September 1995-September 1998)

Soil Conservation Aid, USDA Natural Resources Conservation Service, Ranson, W.Va. (March-August 1995)

Theses

Impacts from above-ground activities in the Eagle Ford Shale play on landscapes and hydrologic flows, La Salle County, Texas, The University of Texas at Austin, 2014, 101 p.

Continuing Education Courses Taken

Quality-Control Sample Design and Interpretation: USGS New Mexico Water Sciences Center, Albuquerque, NM, October 30-November 3, 2017

Writing in the Sciences: Stanford University, online, September 1-November 1, 2015

Technical Writing: The University of Texas at Austin, Center for Professional Education, August 26, 2015

Areas of Expertise

Areas of Expertise

Assessment of current and projected landscape alteration and associated impacts from multiple energy systems including wind, solar, and oil and gas.

Hydrologic monitoring to identify groundwater flowpaths, groundwater-surface water interactions, and potential impacts to ecosystems.

Developing, with stakeholder participation, a framework of best-management practices that can be readily incorporated into voluntary cooperative conservation agreements to prevent Endangered Species Act listings and possible obstructions to economic growth.

Installation and instrumentation of seismic networks.

Service

University Committees

Member, Editorial Board, Bureau of Economic Geology, The University of Texas at Austin, September 1, 2018-August 31, 2020

External Committees Participation

Reviewer of peer-reviewed articles for the Journal of Environmental Management and Environments.

Presentations

Invited Presentations

Projected landscape impacts from energy development scenarios in the Trans-Pecos: presented to Texas Agricultural Land Trust, Espino Conference Center, Sul Ross State University, Alpine, Tex., November 14, 2019.

Developing aquatic ecosystem science to inform environmental performance: presented to Water-Energy Regulatory Environment and Trends Session, presented at The University of Texas at Austin/Exxon Mobil 2018 Energy-Water Workshop, Austin, Tex., December 3, 2018.

Aligning Science with Conservation: Texas Terrestrial and Aquatic Examples: presented to U.S. Fish and Wildlife Service, presented at Species Status Assessment, Framework Implementation Summit, Tucson, Ariz., November 13, 2018.

Time Series Analysis of Energy Production and Associated Landscape Fragmentation in the Eagle Ford Shale Play: presented to South Texas Geological Society, presented at South Texas Geological Society November 2017 Meeting, San Antonio, Tex., November 8, 2017.

Presentations

Green Water and Vulnerable Ecosystems in Unconventional Energy Plays: presented to Soil Science Society of America, presented at International Soils Meeting, San Diego, Calif., January 6-9, 2019.

Landscape Alteration from Energy Development in the Greater Big Bend Region of Texas: presented at Soil Science Society of America International Soils Meeting, San Diego, Calif., January 8, 2019.

Unraveling the natural history of the enigmatic Spot-tailed Earless Lizard (*Holbrookia lacerata*) through collaborative research (Presented by: Travis LaDuc, Brad Wolaver, Ben Labay, Jon Paul Pierre [UT-Austin], Mike Duran [The Nature Conservancy], Toby Hibbitts and Wade Ryberg [Texas A&M University], Ian Wright [Univ. California - Riverside], and Matt Fujita and Corey Roelke [Univ. Texas at Arlington]): presented at Joint Meeting of Ichthyologists and Herpetologists, Austin, Tex., July 12-16, 2017.

Assessing Viability of the Spot-tailed Earless Lizard in Texas (Authors: Ryberg, W. A., Hibbitts, T. J., LaDuc, T. J., Wolaver, B. D., Pierre, J. P., Labay, B. J., Wright, I., Duran, C. M.): presented to Texas Chapter of The Wildlife Society, presented at 53rd Annual Meeting, San Antonio, Tex., February 16-18, 2017.

Current Distribution and Phylogenetic Relationships of *Holbrookia lacerata* in Texas (Authors: Toby Hibbitts, Wade Ryberg, Dalton Neuharth, Connor Adams, Drew Dittmer, Johanna Harvey, Gary Voelker, Ben Labay, Jon Paul Pierre, Brad Wolaver, Travis LaDuc): presented to American Society of Ichthyologists and Herpetologists (ASIH), presented at ASIH Annual Meeting, New Orleans, Louisiana, July 8, 2016.

Funding

Research Support

Co-Principal Investigator: Conservation of the Greater Big Bend Region: Using Engagement and Science to Guide Energy Development, Cynthia and George Mitchell Foundation (April 1, 2019-April 30, 2023; \$478,106.17).

Principal Investigator: Balmorhea - Continuation of West Texas Spring Monitoring and Water Quality Sampling for TNC, The Nature Conservancy (September 1, 2018-June 30, 2019; \$38,272).

Researcher: To Understand Landscape Impacts from Energy Sprawl in the Trans-Pecos Region, Texas, Cynthia and George Mitchell Foundation (October 1, 2017-December 31, 2018; \$200,000).

Researcher: Species Status Assessment for Spot-Tailed Earless Lizard (*Holbrookia lacerata*), original proposal and two contract addenda, Texas Comptroller of Public Accounts, Economic Growth and Endangered Species Management (June 23, 2014-March 31, 2018; \$1,277,463.71).

Researcher: Habitat Assessment and Fragmentation, Population Surveys, and Genetic Analyses for the Plains Spotted Skunk (*Spilogale putorius interrupta*), Texas Comptroller of Public Accounts, Economic Growth and Endangered Species Management (September 30, 2014-July 31, 2017; \$248,799).

Publications

Peer Reviewed Journal Articles

Devitt, D. A., Young, M. H., and Pierre, J. P., 2020, Assessing the potential for greater solar development in West Texas, USA: *Energy Strategy Reviews*, v. 29, no. 100490, 10 p., <http://doi.org/10.1016/j.esr.2020.100490>.

Pierre, J. P., Andrews, J. R., Young, M. H., Sun, A. Y., and Wolaver, B. D., 2020, Projected landscape impacts from oil and gas development scenarios in the Permian Basin, USA: *Environmental Management*, v. 66, no. 3, p. 348-363, <http://doi.org/10.1007/s00267-020-01308-2>.

Hibbitts, T. J., Ryberg, W. A., Harvey, J. A., Voelker, G., Lawing, A. M., Adams, C. S., Neuharth, D. B., Dittmer, D. E., Duran, C. M., Wolaver, B. D., Pierre, J. P., Labay, B. J., and LaDuc, T. J., 2019, Phylogenetic structure of *Holbrookia lacerata* (Cope 1880) (Squamata: Phrynosomatidae): one species or two?: *Zootaxa*, v. 4619, no. 1, p. 139-154, <http://doi.org/10.11646/zootaxa.4619.1.6>.

Pierre, J. P., Wolaver, B. D., Labay, B. J., LaDuc, T. J., Duran, C. M., Ryberg, W. A., Hibbitts, T. J., and Andrews, J. R., 2018, Comparison of recent oil and gas, wind energy, and other anthropogenic landscape alteration factors in Texas through 2014: *Environmental Management*, v. 61, no. 5, p. 805-818, <http://doi.org/10.1007/s00267-018-1000-2>.

Wolaver, B. D., Pierre, J. P., Ikonnikova, S., Andrews, J. R., McDaid, G., Ryberg, W. A., Hibbitts,

T. J., Duran, C. M., Labay, B. J., and LaDuc, T. J., 2018, An improved approach for forecasting ecological impacts from future drilling in unconventional shale oil and gas plays: *Environmental Management*, v. 62, no. 2, p. 323-333, <http://doi.org/10.1007/s00267-018-1042-5>.

Wolaver, B. D., Pierre, J. P., Labay, B. J., LaDuc, T. J., Duran, C. M., Ryberg, W. A., and Hibbitts, T. J., 2018, An approach for evaluating changes in land-use from energy sprawl and other anthropogenic activities with implications for biotic resource management: *Environmental Earth Sciences*, v. 77, no. 5, p. 171, <http://doi.org/10.1007/s12665-018-7323-8>.

Pierre, J.P., Young, M. H., Wolaver, B. D., Andrews, J. R., and Breton, C., 2017, Time series analysis of energy production and associated landscape fragmentation in the Eagle Ford Shale Play: *Environmental Management*, v. 60, no. 5, p. 852-866, <http://doi.org/10.1007/s00267-017-0925-1>.

Ryberg, W. A., Wolaver, B. D., Prestridge, H. L., Labay, B. J., Pierre, J. P., Costley, R. A., Adams, C. S., Bowers, B. C., and Hibbitts, T. J., 2017, Habitat modeling and conservation of the Western Chicken Turtle (*Deirochelys reticularia miaria*): *Herpetological Conservation and Biology*, v. 12, no. 2, p. 307-320.

Pierre, J.P., Abolt, C. J., and Young, M. H., 2015, Impacts from above-ground activities in the Eagle Ford Shale play on landscapes and hydrologic flows, La Salle County, Texas: *Environmental Management*, v. 55, no. 6, p. 1262-1275, <http://doi.org/10.1007/s00267-015-0492-2>.

Contract Reports

Wolaver, B. D., Gholoubi, A., Caldwell, T. G., Bongiovanni, T., and Pierre, J. P., 2019, Final Report, Monitoring of Hydrologic Effects of Salt Cedar Control in the Upper Brazos River Basin, Texas, August 31, 2019: Texas Parks and Wildlife Department, 52 p.

Wolaver, B. D., Reynolds, L. V., Caldwell, T. G., Bongiovanni, T., Pierre, J. P., and Gholoubi, A., 2019, Final Performance Report, February 17, 2017 - August 31, 2019, as required by the Endangered Species Program, Texas, Grant Number 493010, Federal Grant No. TX E-185-R-1: Surface Water-Groundwater Interactions in the Upper Brazos River Basin of Texas and Quantitative Relationship to Smalleye and Sharpnose Shiner Reproductive Success: Texas Parks and Wildlife Department, 116 p.

Wolaver, B. D., Sun, A. Y., Caldwell, T., Smyth, R. C., Mickler, P., Bongiovanni, T., Pierre, J. P., Sharp, J. M., Jr., Uliana, M., and Breton, C., 2019, Report on year one preliminary results: hydrogeologic evaluation and vulnerability analysis for Balmorhea-area springs: Bureau of Economic Geology, The University of Texas at Austin, Annual Report prepared for Apache Corporation, 52 p.

LaDuc, T. J., Wolaver, B. D., Pierre, J. P., Duran, C. M., Labay, B. J., Ryberg, W. A., Hibbitts, T. J., Roelke, C. E., Fujita, M. K., Wright, I. M., Surya, G. S., Shank, C. J., Andrews, J. R., Ikonnikova, S., and McDaid, G., 2018, Final Report: Collaborative Research on the Natural History of the Enigmatic Spot-Tailed Earless Lizard (*Holbrookia lacerata*) in Texas: The University of Texas at Austin (<http://dx.doi.org/10.18738/T8/C1C7X7>), contract report prepared for Texas Comptroller of Public Accounts, under contract no. 14-000769, 259 p.

Wolaver, B. D., Caldwell, T., Pierre, J. P., and Bongiovanni, T., 2018, Surface water-groundwater interactions in the Upper Brazos River basin of Texas and quantitative relationship to smalleye and sharpnose shiner reproductive success: BEG Year 2 Interim Report prepared for Texas Parks and Wildlife Department, under contract no. 493010, 7 p.

Wolaver, B. D., Saylam, K., Caldwell, T., Bongiovanni, T., Andrews, J. R., Pierre, J. P., and Hupp, J. R., 2018, Airborne Lidar bathymetry survey and aquatic habitat evaluation for Devils River minnow and Texas hornshell mussel in the Devils River: BEG Year 1 Interim Report (Feb. 20, 2018, to Sept. 30, 2018) prepared for Texas Parks and Wildlife Department, under contract no. 507663, 8 p.

Dowler, R. C., Perkins, J. C., Shaffer, A. A., Wolaver, B. D., Labay, B. J., Pierre, J. P., Ferguson, A. W., McDonough, M. M., and Ammerman, L. K., 2017, Conservation status of the Plains Spotted Skunk, *Spilogale putorius interrupta*, in Texas, with an assessment of genetic variability in the species: Final Report prepared for Texas Comptroller of Public Accounts: Endangered Species Research Fund, under contract no. 5540RR (IAC number), 147 p.

Pierre, J. P., Young, M. H., Wolaver, B. D., Andrews, J. R., and Breton, C., 2017, Time series analysis of energy production and associated landscape fragmentation in the Eagle Ford Shale Play: prepared for JP Morgan Chase Foundation, 16 p.

Ryberg, W. A., Wolaver, B. D., Prestridge, H. L., Labay, B. J., Pierre, J. P., Costley, R., Adama, C. S., Bowers, B. C., and Hibbitts, T. J., 2017, Habitat modeling and conservation of the Western Chicken Turtle (*Deirochelys reticularia miaria*) in Texas: Final Report prepared for Texas Comptroller of Public Accounts: Endangered Species Research Fund, under contract no. 09152014, 76 p.

Published Abstracts

Pierre, J. P., Young, M. H., Devitt, D. A., Smith, F., and Andrews, J. R., 2019, Landscape alteration from energy development in the Greater Big Bend Region of Texas (abs.): presented at the Soil Science Society of America International Soils Meeting, San Diego, CA.

Young, M. H., Pierre, J. P., Devitt, D. A., and Smith, F., 2019, Land impacts in West Texas from energy development (abs.): presented at the Soil Science Society of America International Soils Meeting, San Diego, CA.

Young, M. H., Wolaver, B. D., and Pierre, J. P., 2018, Energy sprawl in Trans-Pecos, Texas (abs.): presented at the Texas Lands Conservation Conference, Austin, Tex.

Frizzell, S. L., Neuharth, D., Adams, C., Johnson, T., Ryberg, W. A., Hibbitts, T. J., LaDuc, T. J., Wolaver, B. D., Pierre, J. P., Labay, B. J., and Duran, C. M., 2017, Comparative analysis of photo identification for mark-recapture data in the Spot-tailed Earless Lizard (*Holbrookia lacerata*) (abs.): College Station, Tex.

Frizzell, S. L., Neuharth, D., Adams, C., Johnson, T., Ryberg, W. A., Hibbitts, T. J., LaDuc, T. J., Wolaver, B. D., Pierre, J. P., Labay, B. J., and Duran, C. M., 2017, Comparative analysis of photo identification for mark-recapture data in the Spot-tailed Earless Lizard (*Holbrookia lacerata*) (abs.): San Antonio, Tex.

Frizzell, S. L., Neuharth, D., Adams, C., Johnson, T., Ryberg, W. A., Hibbitts, T. J., LaDuc, T. J., Wolaver, B. D., Pierre, J.P., Labay, B. J., and Duran, C. M., 2017, Comparative analysis of photo identification for mark-recapture data in the Spot-tailed Earless Lizard (*Holbrookia lacerata*), Joint Meeting of Ichthyologists and Herpetologists, Austin, Tex. (abs.).

Hibbitts, T. J., Ryberg, W. A., Neuharth, D. B., Adams, C. S., Dittmer, D. E., Harvey, J. A., Voelker, G. A., Labay, B. J., Pierre, J. P., Wolaver, B. D., and Laduc, T. J., 2016, Current distribution and phylogenetic relationships of *Holbrookia lacerata* in Texas (abs.): American Society of Ichthyologists and Herpetologists, New Orleans, La.

Hibbitts, T. J., Ryberg, W. A., Neuharth, D. B., Adams, C. S., Dittmer, D. E., Harvey, J. A., Voelker, G. A., Labay, B. J., Pierre, J. P., Wolaver, B. D., and Laduc, T. J., 2016, Current distribution and phylogenetic relationships of *Holbrookia lacerata* in Texas (abs.): Texas Chapter of the Wildlife Society, San Antonio, Tex.

Laduc, T. J., Wolaver, B. D., Labay, B. J., Pierre, J. P., Duran, C. M., Hibbitts, T. J., and Ryberg, W. A., 2016, Research and cooperation: unraveling the natural history of the enigmatic spot-tailed earless lizard (*Holbrookia lacerata*) (abs.): Southwest Partners in Amphibian and Reptile Conservation, Alpine, Tex.

Laduc, T. J., Wolaver, B. D., Labay, B. J., Pierre, J. P., Duran, C. M., Hibbitts, T. J., and Ryberg, W. A., 2016, Research and cooperation: unraveling the natural history of the enigmatic

spot-tailed earless lizard (*Holbrookia lacerata*) (abs.): Texas Academy of Science, Junction, Tex.

Wolaver, B. D., Pierre, J. P., Labay, B. J., Laduc, T. J., Duran, C. M., Ryberg, W. A., and Hibbitts, T. J., 2016, A comparison of landscape alteration from oil and gas development and other anthropogenic factors in Texas (abs.): Geological Society of America, Annual Meeting, Denver, Colo., Paper No. 299-9. T36. Environmental Effects Related to Unconventional Oil and Gas Resources.

Hibbitts, T. J., Ryberg, W., Neurharth, D., Adams, C., Dittmer, D., Harvey, J., Voelker, G., Labay, B. J., Pierre, J. P., and Wolaver, B. D., 2015, Current distribution and phylogenetic relationships of *Holbrookia lacerata* in Texas (abs.): Texas Herpetological Society, 2015 Fall Symposium, Texas State University, San Marcos, TX, November 7.

Laduc, T. J., Wolaver, B. D., Labay, B. J., Pierre, J. P., Duran, C. M., Hibbitts, T. J., and Ryberg, W., 2015, *Holbrookia lacerata*: data gaps, research, the Species Status Assessment, and a tale of cooperation (abs.): Texas Herpetological Society, 2015 Fall Symposium, Texas State University, San Marcos, TX, November 7.

Wolaver, B. D., Pierre, J. P., Labay, B., Ryberg, W., Hibbitts, T., and Prestridge, H., 2015, Freshwater wetland habitat loss and fragmentation: Implications for aquatic biodiversity conservation (abs.): American Geophysical Union Fall Meeting, San Francisco, CA, no. H11E-1380, December 14-18, 2015.

Young, M. H., Nicot, J.-P., Scanlon, B. R., and Pierre, J.P., 2015, Water/Land/Energy Nexus for Unconventional Energy in Texas (abs.): , presented at the UCOWR/NIWR/CUAHSI Conference, Las Vegas, NV.

Young, M. H., Nicot, J. -P., Scanlon, B. R., and Pierre, J.P., 2014, Water/land/energy nexus in Texas (abs.): presented at the SSSA National Meetings, Long Beach, California.