2010-2013 Graduate Program Report for Department of Geology,
GEO Graduate Student Accomplishments

Highlights:

- 27 first-authored refereed journal articles were published by GEO Ph.D. students in 2010-2013 (16 in 2013, 6 in 2012, 4 in 2011, and 1 in 2010, with 7 additional co-authored papers in 2013 and 2 additional co-authored papers in 2012 = 36 total refereed publications with Baylor Graduates as authors/co-authors.
- 86 first-authored professional presentations were given by GEO Graduate students in 2010-2013: (2013: 21 Ph.D., 6 M.S.; 2012, 14 Ph.D., 4 M.S.; 2011: 14 Ph.D., 8 M.S.; 2010: 9 Ph.D., 10 M.S.).
- Department had a record-size incoming recruiting class in the Fall semester of 2013 with 8 new M.S. and 7 new Ph.D. students.
- Completed 5 Ph.D. Dissertations and 15 M.S. Theses in 2012-2013; anticipate 5 Ph.D. graduates in 2014

Completed Ph.D. Dissertations (2013):


Completed Ph.D. Dissertations (2012):


Completed M.S. Theses (2013):

Boling, Kenneth J., 2013, Controls on the accumulation of organic matter in the Pepper Shale and Eagle Ford Formations, Central Texas, USA: (M.S. Thesis, supervisor: Dworkin)
Comiskey, Cody S., 2013, Seismic anisotropy in Texas and Oklahoma: Investigations into events that shaped southern Laurentia: (M.S. Thesis, supervisor: Pulliam)

Culbertson, Amos V., 2013, Detailed paleoclimate records from Late Pennsylvanian polygenetic paleosols: North-central Texas, USA: (M.S. Thesis, supervisor: Driese)

Evanzia, Dominic, 2013, Seismic Vp and Vs tomography of Texas and Oklahoma with a focus on the Gulf Coast margin: (M.S. Thesis, supervisor: Pulliam)

Gunnell, Alan R., 2013, Distribution of methane hydrate beneath Woolsey Mound, Mississippi Canyon Block 118, Gulf of Mexico: (M.S. Thesis, supervisor: Dunbar)

Von Bargen, Justin, 2013, Charcoal chemistry: Developing a proxy for paleofire regimes: (M.S. Thesis, supervisor: Hockaday)

Completed M.S. Theses (2012):


Barclay, Curtis J., 2012, Regional reservoir characterization and sequence stratigraphy of the Jean Marie Member of the Redknife Formation, Northern British Columbia: (M.S. Thesis: supervisor: Atchley)


Jones, Kelly, 2012, Reservoir assessment of the Late Devonian Kakisa Formation, northeastern British Columbia: (M.S. Thesis, supervisor: Atchley)

Lemons, Casee, 2012, Leaf economics and biomechanics: (M.S. Thesis, supervisor: Peppe)

Lindsay, Ryan, 2012, Seismogenic faulting, Tahoe Basin CA: (M.S. Thesis, supervisor: Cronin)


Total Graduate Students in Residence in Fall semester of 2013: 22 Ph.D., 11 M.S. students = 33 students
Total Graduate Students (counting off-campus) in Fall semester of 2013: 25 Ph.D., 15 M.S. students = 40 students

Graduate Student Scholarship: First-Authored Refereed Publications: Accepted, in Press, or Published in 2013 (*bold = GEO student, underline bold = GEO Faculty)


*4) *Jennings, D.S.*, and *Driese, S.G.*, 2013, Understanding barite and gypsum precipitation in upland acid-sulfate soils: an example from the Lufkin Series toposequence, south-central Texas, USA: *Sedimentary Geology.*


**Graduate Student Scholarship: Co-Authored Refereed Publications: Accepted, in Press, or Published in 2013 (bold = GEO student, underline bold = GEO Faculty)**


**Graduate Student Scholarship: First-Authored Refereed Articles Published in 2012 (*bold = GEO graduate student, underline bold = GEO Faculty*)**


**Graduate Student Scholarship: Co-Authored Refereed Publications:**
Accepted, in Press, or Published in 2012 (*bold = GEO student, underline bold = GEO Faculty)


**Graduate Student Scholarship: First-Authored Refereed Articles Published in 2011 (*bold = GEO graduate student, underline bold = GEO Faculty)**


4) *Wegert, D.,* and *Parker, D.F.,* 2011, Petrogenesis of the McDermitt Formation trachyandesite, San Juan basin, Colorado and New Mexico: Rocky Mountain Geology, v. 46, p. 139-152.

**Graduate Student Scholarship: First-Authored Refereed Articles Published in 2010 (*bold = GEO graduate student, underline bold = GEO Faculty)**

**Graduate Student Scholarship: First-Authored Professional Presentations in 2013: (*bold = GEO graduate student, underline bold = GEO Faculty)**

**Ph.D.:**


(7) *Longbottom, T.,* 2013, Assessing the utility of molecular biomarkers in the rock record; the rise of terrestrial plants. Soil Survey and Land Resource Workshop, College Station, TX, Feb 7, 2013.(8)

*Longbottom, T.L., Hockaday, W.C.,* and *Boling, K.S.,* 2013, Organic geochemistry of the Eagleford shale (Woodway, TX, USA); organic matter sources, paleoenvironmental conditions, and biotic/abiotic alteration. American Chemical Society Southwest Regional Meeting, Waco, TX, Nov. 9-11, 2013.


(17) *Wegert, D.J.*, and *Parker, D.F.*, 2013, Petrogenesis of peraluminous rhyolite of the Nathrop Domes, central Colorado: Geological Society of America, Abstracts with Programs, v.45, no. 5 (Presented by *Parker* at Rocky Mountain Section, Gunnison, CO, May 15, 2013)


M.S.:


(2) *Ju, D.* *Wong, S.*, and *Yelderman J., Jr.*, 2013, How much have we lost? Affects of urbanization and mining on an alluvial aquifer in central Texas, 2013: South Central GSA, Austin, TX, Abstracts with Programs v. 45, no. 3.


(5) *Von Bargen, J.M.*, *Hockaday, W.C.*, Yao, J., and White, J.D., Charcoal Chemistry: Developing a proxy for paleofire regimes, South-Central Section - 47th Annual Meeting, Austin, TX, April 4-5, 2013.

B.S.:


Graduate Student Scholarship: First-Authored Professional Presentations in 2012: (*bold = GEO graduate student, underline bold = GEO Faculty)

Ph.D.:


**M.S.:**

(1) *Barclay, C., Atchley, S.C.,* and *Jones, K.,* 2012, Regional reservoir characterization and exploration assessment of the Late Devonian Jean Marie Formation within the Bivouac/Ekwan Field Areas, northern British Columbia: AAPG Annual Meeting, Abstracts with Programs, Long Beach, CA.


(4) *Jones, K., Atchley, S.C.,* and *Barclay, C.,* 2012, Regional reservoir assessment of the Late Devonian Kakisa Formation, northeastern British Columbia, Canada: 2012 AAPG Annual Meeting Abstracts with Programs, Long Beach, CA.

**B.S.:**

Graduate Student Scholarship: First-Authored Professional Presentations in 2011: (*bold = GEO graduate student, underline bold = GEO Faculty)

Ph.D.:


(14) *Stinchcomb, G.E., Peppe, D.J., and Driese, S.G., 2011, Precipitation and time are factors influencing modern and past magnetic susceptibility enhancement within alluvial soils along the Delaware River Valley, USA: Fall American Geophysical Union (AGU) meeting in San Francisco, CA, December 2011.

M.S.:


(3) *Felda, G.R., 2011, Development of a 3-dimensional sequence stratigraphic model for the Late Triassic (Norian) Owl Rock Member located at Petrified Forest National Park, Arizona: A reconstruction of paleodepositional environments and paleoclimatic conditions: GSA Annual Meeting in Minneapolis, MN, October 2011. (GSA Abstracts with Programs Vol. 43, No. 5).


B.S.:

(1) *Barrington, T., and Pulliam, J., 2011, Seismic anisotropy of the Rio Grande Rift and surrounding regions: presented at Texas Undergraduate Research Day at the Capitol: Transforming Texas Through Undergraduate Research, Austin, TX, 14 February 2011

(2) *Barrington, T., and Pulliam, J., 2011, Seismic Anisotropy, Edge-Driven Convection, and the Rio Grande Rift, Baylor Undergraduate Research and Scholarly Activity (URSA) Scholar’s Week, Baylor University, April 6-7, 2011.

(4) *Kuijper, K., 2011, Testing the universal paleoprecipitation equation (CIA-K) using the newly constructed NRCS/Baylor soil geochemical database: (talk presented at 48th Annual Soil Survey and Land Resource Workshop in College Station, TX, on February 3, 2011).


Graduate Student Scholarship: First-Authored Professional Presentations in 2010: (*bold = GEO graduate student, underline bold = GEO Faculty)

Ph.D.:


M.S.:

(1) *Ball, N.H., Atchley, S.C., and Hunt, L.E.,* 2010, Depositional and diagenetic controls on reservoir quality and their petrophysical prediction within the Upper Cretaceous Doe Creek Member of the Kaskapau Formation at Valhalla Field, northwest Alberta, Canada: 2010 Canadian Society of Petroleum Geologists Meeting, Abstracts with Programs.


(3) *Hunt, L.E., Atchley, S.C., and Ball, N.H.,* 2010, Sequence stratigraphic and depositional controls on reservoir continuity within the Cretaceous Doe Creek Member of the Kaskapau Formation, Valhalla Field, Alberta, Canada: 2010 Canadian Society of Petroleum Geologists Meeting, Abstracts with Programs.


B.S.:


Updated data compiled by Dr. Steven G. Driese, GEO Graduate Program Director, 12/12/13