

Peter P. Flaig

Professional Summary

August 28, 2015

Business address: The University of Texas at Austin
Bureau of Economic Geology
University Station, Box X
Austin, TX 78713-8924
Telephone: (512) 471-9622
E-mail address: peter.flaig@beg.utexas.edu

Professional Preparation

Academic Background

Postdoctoral Fellow, The University of Texas at Austin, 2011
Ph.D. Geology, University of Alaska--Fairbanks, 2010
M.S. Geology, University of Wisconsin--Milwaukee, 2005
B.S. Geology, University of Wisconsin--Milwaukee, 2002

Professional Appointments

Present Position: Research Associate, Bureau of Economic Geology, The University of Texas at Austin (2011 - Present). Lead scientist on fluvial-deltaic studies, Quantitative Clastics Laboratory.

Instructor, The University of Texas at Austin (2013-2014)

Summer Field Geology Course #660

Instructor, GeoFORCE Texas, The University of Texas at Austin (2010-2014)

Responsibilities: Lead Instructor for 10th Grade Academy, Geology Field Trip: Southwestern United States and the Grand Canyon

Instructor, GeoFORCE Alaska, The University of Texas at Austin and University of Alaska--Fairbanks (2012). Responsibilities: Lead instructor for 9th Grade Academy, Geology Field Trip: Alaska Fairbanks, Denali National Park, Anchorage, Matanuska Glacier.

Sedimentologist, National Science Foundation Office of Polar Programs project OPP/ANT 0944282 (2010-2011)

Project: Paleoenvironmental and paleoclimatic analysis of the Beacon Supergroup, Beardmore Glacier Area, Central Transantarctic Mountains, Antarctica.

Postdoctoral Fellow, Bureau of Economic Geology, The University of Texas at Austin (2009 - 2011). Project: Morphology and architecture of Cretaceous-age fluvial/alluvial/shallow-marine depositional systems of North America.

Research Assistant, Department of Geology and Geophysics, University of Alaska--Fairbanks (2005 - 2009). Collaborative Research: An ancient arctic dinosaur ecosystem from the Late Cretaceous Prince Creek Formation, North Slope, Alaska--a natural case study in a greenhouse climate model.

Geologist, Alaska Division of Geological and Geophysical Surveys (summer 2008). Preliminary reconnaissance for geologic mapping of the Sagavanirktok Quadrangle, North Slope, Alaska.

Geologist (internship), FEX/Talisman Energy, Alaska (2008 - 2008). Project: Late Cretaceous to early Tertiary regional geology and reservoir potential of the Central North Slope, Alaska.

Graduate Teaching Assistant, Department of Geology and Geophysics, University of Alaska--Fairbanks (2005 - 2006). Responsible for implementing curriculum for undergraduate courses in Sedimentology and Introductory Geology.

Research Assistant, Department of Geosciences, University of Wisconsin--Milwaukee (2002 - 2005). Late Paleozoic-Mesozoic fauna, environment, climate, and basinal history, Beardmore Glacier Area, Transantarctic Mountains, Antarctica.

Theses

Changing Fluvial Style across the Permian-Triassic Boundary, Beardmore Glacier Region, Central Transantarctic Mountains, Antarctica, 2002, 288 p.

Dissertations

Depositional Environments of the Late Cretaceous (Maastrichtian) Dinosaur-Bearing Prince Creek Formation: Colville River Region, North Slope, Alaska, 311 p.

Areas of Expertise

Areas of Expertise

Clastic sedimentology

Fluvial sedimentology

Paleoenvironmental reconstruction of continental to shallow-marine systems using sedimentology, stratigraphy, architecture, and ichnology in outcrop studies

Paleopedology

Photography and high-resolution imagery (e.g. lidar, GigaPan) of clastic systems

Remote logistics

Publications

Peer Reviewed Journal Articles

van der Kolk, D. A., Flaig, P. P., and Hasiotis, S.T., 2015, Paleoenvironmental reconstruction of a Late Cretaceous, muddy, river-dominated polar deltaic system: Schrader Bluff - Prince Creek Formation transition, Shivugak Bluffs, North Slope of Alaska, U.S.A: *Journal of Sedimentary Research*, v. 85, p. 903-936, <http://doi.org/10.2110/jsr.2015.58>.

Flaig, P. P., Fiorillo, A.R., and McCarthy, P.J., 2014, Dinosaur-bearing hyperconcentrated flows of Cretaceous Arctic Alaska: Recurring catastrophic event beds on a distal paleopolar coastal plain: *PALAIOS*, v. 29, p. 594-611, <http://doi.org/10.2110/palo.2013.133>.

Hudock, J. W., Flaig, P. P., and Wood, L. J., 2014, Washover fans: a modern geomorphologic analysis and proposed classification scheme to improve reservoir models: *Journal of Sedimentary Research*, v. 84, no. 10, p. 854-865, <http://doi.org/10.2110/jsr.2014.64>.

Flaig, P. P., McCarthy, P. J., and Fiorillo, A. R., 2013, Anatomy, evolution, and paleoenvironmental interpretation of an ancient arctic coastal plain: Integrated paleopedology and palynology from the upper Cretaceous (Maastrichtian) Prince Creek Formation, North Slope, Alaska, USA: *New Frontiers in Paleopedology and Terrestrial Paleoclimatology*, SEPM Special Publication No. 114, p. 179-230.

Suarez, C., Ludvigson, G., Gonzalez, L. A., Fiorillo, A. R., Flaig, P. P., and McCarthy, P. J., 2013, Use of multiple oxygen isotope proxies for elucidating Arctic Cretaceous palaeo-hydrology: Bojar, A. V., Melinte-Dobrinescu, M. C., and Smit, J., eds., *Isotopic Studies in Cretaceous Research*, Geological Society of London, Special Publications 382, p. 185-202,

<http://doi.org/10.1144/SP382.3>.

Gulbranson, E. L., Isbell, J. L., Taylor, E. L., Ryberg, P., Taylor, T. N., and Flaig, P. P., 2012, Permian polar forests: deciduous and environmental variation: *Geobiology*, v. 10, p. 479-495.

Burton, D., Dunlap, D. B., Wood, L. J., and Flaig, P. P., 2011, Lidar intensity as a remote sensor of rock properties: *Journal of Sedimentary Research*, v. 81, p. 339-347. DOI 10.2110/JSR.2011.31

Flaig, P. P., McCarthy, P. J., and Fiorillo, A. R., 2011, A tidally influenced, high-latitude coastal-plain: the Upper Cretaceous (Maastrichtian) Prince Creek Formation, North Slope, Alaska: in Davidson, S., Leleu, S., and North, C. eds., *From river to rock record: the preservation of fluvial sediments and their subsequent Interpretation: SEPM Special Publication 97*, p. 233-264.

Fiorillo, A. R., McCarthy, P. J., and Flaig, P. P., 2010, Taphonomic and sedimentologic interpretations of the dinosaur-bearing Upper Cretaceous strata of the Prince Creek Formation, northern Alaska: insights from an ancient high-latitude terrestrial ecosystem: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 295, p. 376-388.

Fiorillo, A. R., McCarthy, P. J., Flaig, P. P., Brandlen, E., Norton, D., Jacobs, L., Zippi, P., and Gangloff, R. A., 2010, Paleontology and paleoenvironmental interpretation of the Kikak-Tegoseak Dinosaur Quarry, (Prince Creek Formation: Late Cretaceous), Northern Alaska: a multi-disciplinary study of an ancient high-latitude, Ceratopsian Dinosaur Bonebed, in Ryan, M. J., Chinner-Algeier, B. J., and Eberth, D. A., eds., *New perspectives on horned dinosaurs: The Royall Tyrell Museum Ceratopsian Symposium: Bloomington, Indiana, Indiana University Press*, p. 456-477.

Fiorillo, A. R., Tykoski, R., Currie, P., McCarthy, P. J., and Flaig, P. P., 2009, Description of two partial Troodon braincases from the Prince Creek Formation (Upper Cretaceous) North Slope, Alaska: *Journal of Vertebrate Paleontology*, v. 29, no. 1, p. 178-187.

Guidebooks

Flaig, P. P., van der Kolk, D. A., and Wood, L. J., 2014, *Wave, tide, and river-dominated systems of the Cretaceous Western Interior Seaway: the Kenilworth and Grassy members of the Blackhawk, the Segoe, and the Loyd Formations, eastern Utah and northwestern Colorado: The University of Texas at Austin, Bureau of Economic Geology, Quantitative Clastics Laboratory*, 131 p.

Wood, D. H., and Flaig, P. P., 2013, *Transgressive systems tract reservoirs of the San Juan Basin, Northwest New Mexico: The University of Texas at Austin, Bureau of Economic Geology, Quantitative Clastics Laboratory* 69 p.

Wood, L. J., Flaig, P. P., and Burton, D., 2012, *Along-Strike Variability of a Tidal Shoreline System: Castlegate to Neslen Formations, Northwestern Colorado to Southwestern Wyoming: The University of Texas at Austin, Bureau of Economic Geology, Quantitative Clastics Laboratory* 19 p.

Wood, L. J., Flaig, P. P., Burton, D., and Brame, J., 2011, *Tide and Wave-Influenced Shoreline Reservoirs of the San Juan Basin, Northwest New Mexico and Southern Colorado, U.S.A.: The University of Texas at Austin, Bureau of Economic Geology, Quantitative Clastics Laboratory* 78 p.

Contract Reports

Flaig, P. P., van der Kolk, D. A., Hasiotis, S. T., 2012, *A high-latitude shoreface to coastal-plain transition: The Schrader Bluff and Prince Creek Formations at Shivugak and Uluksrak Bluffs, Colville River, North Slope, Alaska*, 94 p..

Published Reports

Flaig, P. P., and van der Kolk, Dolores A., 2015, Depositional environments of the Prince Creek Formation along the east side of the Toolik River, Sagavanirktok Quadrangle, North Slope, Alaska: Alaska Division of Geological and Geophysical Surveys, Preliminary Interpretive Report, v. 2015, no. 4, 17 p.

Published Abstracts

Flaig, P. P., Hasiotis, S. T., Isbell, J. L., and Jackson, A., 2013, River-dominated deltas of the Mackellar Formation at Turnabout Ridge, Central Transantarctic Mountains, Antarctica: Hyperpycnal flows and highly-stressed conditions (oral presentation), 10th International Conference on Fluvial sedimentology, Leeds, UK

Flaig, P. P., Hasiotis, S. T., Isbell, J. L., and Sieger, D. N., 2013, Sedimentology and Ichnology of Permo-Triassic Strata at Lamping Peak, Central Transantarctic Mountains, Paleopolar Forests Lakes and Braided Rivers in a Greenhouse World (oral presentation), Geological Society of America Annual Meeting, Minneapolis, MN.

Flaig, P. P., Hasiotis, S. T., Jackson, A., and Isbell, J. L., 2013, Lower Permian Antarctic marine deltas of the Mackellar Formation: Turnabout Ridge, Beardmore Glacier Region, Central Transantarctic Mountains, Antarctica (abs.): in American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, Pennsylvania, May 19-22, abstracts, CD-ROM.

Flaig, P. P., Hasiotis, S. T., Jackson, A., and Isbell, J. L., 2013, Lower Permian Antarctic Marine Deltas of the Mackellar Formation: Turnabout ridge, Beardmore Glacier Region, Central Transantarctic Mountains, Antarctica (oral presentation), American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, PA

Hasiotis, S. T., and Flaig, P. P., 2013, Trace fossil and lithofacies associations, Lower Triassic Fremouw Formation, Beardmore Glacier, Central Transantarctic Mountains, Antarctica (abs.): in American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, Pennsylvania, May 19-22, abstracts, CD-ROM.

Hasiotis, S. T., Flaig, P. P., Isbell, J. L., Gulbranson, E. L., and Sieger, D. N., 2013, Ichnofossils as Proxies for Polar Ecosystems and Climates: An Example of a Hydroclimate Shift in Permian-Triassic Continental Deposits of the Beardmore Glacier Region of Antarctica (oral presentation), Geological Society of America Annual Meeting, Minneapolis, MN.

Hudock, J., Wood, L. J., and Flaig, P. P., 2013, Characterizing Cretaceous Estuarine Deposits of the McMurray Formation in Alberta, Canada: Washover Fans vs. Flood Tidal Deltas (oral presentation), American Association of Petroleum Geologists International Convention and Exhibition, Cartagena, Columbia

Jackson, A., Hasiotis, S. T., and Flaig, P. P., 2013, Ichnology and Sedimentology of the Lower Permian Mackellar Formation at Turnabout Ridge and Buckley Island, Beardmore Glacier, Central Transantarctic Mountains (CTAM) Antarctica: A Shallow Marine Deltaic Environment (poster presentation), American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, PA

Jackson, A., Hasiotis, S. T., Flaig, P. P., and Isbell, J. L., 2013, Ichnology and sedimentology of the Lower Permian Mackellar Formation at Turnabout Ridge and Buckley Island, Beardmore Glacier, Central Transantarctic Mountains (CTAM), Antarctica: A shallow deltaic marine environment (abs.): in American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, Pennsylvania, May 19-22, abstracts, CD-ROM.

Ludvigson, G., Gonzalez, L. A., Suarez, C., Fiorillo, A. R., McCarthy, P. J., and Flaig, P. P., 2013, Exploring the Role of the Hydrologic Cycle in Arctic Amplification During the Greenhouse Worlds of the Cretaceous and Paleocene (oral presentation), Geological Society of America Annual Meeting, Denver, CO.

van der Kolk, D. A., Flaig, P. P., Hasiotis, S. T., and Wood, L. J., 2013, Applying GigaPan Robotic Photo-Panorama technology to Enhance Facies and Architectural analyses of the

Upper Cretaceous Schrader Bluff and Prince Creek Formations at Shivugak Bluffs, North Slope of Alaska, USA (poster presentation), American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, PA

van der Kolk, D. A., Flaig, P. P., Hasiotis, S. T., and Wood, L. J., 2013, Applying GigaPan Robotoc photo-panorama technology to enhance facies and architectural analyses of the Upper Cretaceous Schrader Bluff and Prince Creek Fms at Shivugak Bluffs, North Slope of Alaska, USA (abs.): in American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, Pennsylvania, May 19-22, abstracts, CD-ROM.

Hasiotis, S. T., and Flaig, P. P., 2012, Continental trace fossils of the Lower Triassic Fremouw Formation, Beardmore Glacier Area, Central Transantarctic Mountains, Antarctica: implications for Pangean ichnodiversity and paleogeography (abs.), in 34th International Geological Congress, Brisbane, Australia.

Hasiotis, S. T., and Flaig, P. P., 2012, Horseshoe crabs lived in Antarctic freshwater rivers and lakes: trace fossil evidence from the Buckley and Fremouw Formations, Beardmore Glacier Area, Central Transantarctic Mountains (CTAM) Antarctica (abs.), in Geological Society of America Annual Meeting and Convention, Charlotte, NC.

Hasiotis, S. T., Flaig, P. P., Jackson, A., and Isbell, J. L., 2012, First report of marine trace fossils from fluvio-deltaic-shallow marine deposits in the Lower Permian Mackellar Formation, Beardmore Glacier area, Central Transantarctic Mountains, Antarctica: salinity stressed aquatic conditions (abs.), in 34th International Geological Congress, Brisbane, Australia.

Jackson, A., Hasiotis, S. T., and Flaig, P. P., 2012, Preliminary report of trace fossils and sedimentology indicating a shallow marine deltaic environment for the Lower Permian Mackellar Formation at Turnabout Ridge and Buckley Island, Beardmore Glacier, Central Transantarctic Mountains (CTAM) Antarctica (abs.), in Geological Society of America Annual Meeting and Convention, Charlotte, NC.

Flaig, P. P., 2011, Accommodation as a control on coastal-plain architecture observations and analyses of the Cretaceous versus Paleocene Prince Creek Formation, North Slope, Alaska (abs.): American Association of Petroleum Geologists Annual Convention & Exhibition Abstracts Volume, v. 20, p. 60.

Flaig, P. P., Hasiotis, S. T., van der Kolk, D. A., and Fiorillo, A. R., 2011, Light aircraft, trenching tools, and inflatables--old tools used for new frontiers in trace fossil research (abs.), in Geological Society of America Northeastern and North-Central Joint Meeting, Pittsburgh, Pennsylvania.

Flaig, P. P., Isbell, J. L., and Hasiotis, S. T., 2011, Tectonically driven facies and architectural change across the Permian-Triassic boundary: Beardmore Glacier Region, Central Transantarctic Mountains, Antarctica (abs.), in Geological Society of America Annual Meeting, Minneapolis, MN.

Flaig, P. P., van der Kolk, D. A., and Garrard, R., 2011, Regional geology and reservoir potential of the Schrader Bluff, Prince Creek, and Sagwon Member of the Sagavanirktok formation, (Late Cretaceous-Early Tertiary), North Slope, Alaska (abs.) in American Association of Petroleum Geologists Pacific Section Meeting, Anchorage, Alaska.

Flaig, P. P., van der Kolk, D. A., Burton, D., Garrard, D., and Wood, L. J., 2011, Lidar-enhanced facies, architectural, and statistical analyses of a potential Paleocene reservoir: the Prince Creek Formation at Sagwon Bluffs, North Slope, Alaska (abs.), in Geological Society of America Annual Meeting, Minneapolis, MN.

Flaig, P. P., van der Kolk, D. A., Burton, D., Garrard, D., and Wood, L. J., 2011, LiDAR-enhanced facies, architectural, and statistical analyses of a potential Paleocene reservoir: The Prince Creek formation at Sagwon Bluffs, North Slope, Alaska (oral presentation), Geological society of America Annual Meeting, Minneapolis, MN

Flaig, P. P., van der Kolk, D. A., Garrard, D., Burton, D., and Wood, L. J., 2011, Integrated facies analysis, lidar-enhanced architectural analysis, and petrography of a potential Paleocene reservoir: the Prince Creek Formation at Sagwon Bluffs, North Slope, Alaska (abs.) in American Association of Petroleum Geologists Pacific Section Meeting, Anchorage, Alaska.

Hasiotis, S. T., van der Kolk, D. A., Flaig, P. P., and Wood, L. J., 2011, Preliminary report on the trace fossils in a shoreface to coastal-plain transition: the Schrader Bluff and Prince Creek Formations at Shivugak Bluff, North Slope, Alaska (abs.), in American Association of Petroleum Geologists Pacific Section Meeting, Anchorage, Alaska.

McCarthy, P. J., Flaig, P. P., and Fiorillo, A. R., 2011, Paleoenvironmental reconstruction of a high-latitude coastal-plain: The Upper Cretaceous (Maastrichtian) Prince Creek Formation, North slope, Alaska (abs.), in International Conference on Arctic Margins, Fairbanks, Alaska.

Sieger, D. N., Isbell, J. L., Koch, Z. J., and Flaig, P. P., 2011, Reexamination of fluvial stacking pattern across the Permian-Triassic boundary in the Central Transantarctic Mountains, Antarctica (abs.), in Geological Society of America Annual Meeting, Minneapolis, MN.

Suarez, C., Ludvigson, G., Gonzalez, L. A., Fiorillo, A. R., McCarthy, P. J., Lollar, J. C., and Flaig, P. P., 2011, Investigations of Late Cretaceous Arctic paleohydrology by integration of terrestrial stable isotope proxies (abs.), in Geological society of America Annual Meeting, Minneapolis, MN.

van der Kolk, D. A., Flaig, P. P., Hasiotis, S. T., and Wood, L. J., 2011, High-latitude shoreface to coastal-plain transitions: The Schrader Bluff and Prince Creek Formations at Shivugak Bluff, North Slope, Alaska (abs.), in American Association of Petroleum Geologists Pacific Section Meeting, Anchorage, Alaska.

Flaig, P. P., and McCarthy, P. J., 2010, A snapshot of a warm Cretaceous Arctic: the Prince Creek Formation, North Slope, Alaska (abs.), in Reconstructing Arctic and Beringian Ecosystems and Environments as Proxies for Understanding Recent High-Latitude Climate Change, International Arctic Research Center International Meeting, Fairbanks, Alaska.

Flaig, P. P., McCarthy, P. J., and Fiorillo, A. R., 2010, Anatomy, evolution, and paleoenvironmental interpretation of an ancient Arctic coastal-plain: integrated paleopedology and palynology from the Late Cretaceous (Maastrichtian) Prince creek Formation, North Slope Alaska, U.S.A. (abs.), in SEPM-NSF Research Conference and Workshop: Paleosols and Surface Systems Analogues, Petrified Forest National Park, Holbrook, Arizona.

Flaig, P. P., McCarthy, P. J., and Fiorillo, A. R., 2010, Integrated paleopedology and palynology of the Late Cretaceous (Maastrichtian) Prince Creek Formation, North Slope Alaska, U.S.A. (abs.), in American Geophysical Union National Conference and Exhibition, San Francisco, California.

Flaig, P. P., McCarthy, P. J., and Fiorillo, A. R., 2010, Tidally-influenced sedimentation on a high-latitude Cretaceous coastal-plain: the Prince Creek Formation, North Slope, Alaska (abs.), in American Association of Petroleum Geologists International Conference and Exhibition, Calgary, Alberta, Canada.

Salazar, S., McCarthy, P. J., Flaig, P. P., Fowell, S. J., and Trainor, T., 2010, Clay mineralogy of some high-latitude paleosols from the Prince Creek Formation (Maastrichtian), North Slope, Alaska (abs.), in Geological Society of America National Conference and Exhibition, Denver, Colorado.

Flaig, P. P., McCarthy, P. J., and Fiorillo, A. R., 2008, Alluvial architecture and fluvial facies of tidally-influenced alluvial/delta plain deposits of the Late Cretaceous Prince Creek Formation: Colville Basin, North Slope, Alaska (abs.), in River to Rock Record, International Conference, Aberdeen, Scotland.

Flaig, P. P., McCarthy, P. J., and Fiorillo, A. R., 2008, Tidally-influenced, high-latitude alluvial/deltaic deposits of the dinosaur-bearing Late Cretaceous Prince Creek Formation: North

Slope, Alaska (abs.), in Geological Society of America National Meeting, Houston, Texas.

van der Kolk, D. A., and Flaig, P. P., 2008, Outcrop expression of the Schrader Bluff and Prince Creek Formations along the Toolik River, Sagavanirktok B-4 Quadrangle (1:63,360), North Slope, Alaska (abs.), in Alaska DNR Technical Review Meeting, BP Energy Center, Anchorage, Alaska.

Fiorillo, A. R., McCarthy, P. J., Brandlen, E., Flaig, P. P., Norton, D., Jacobs, L., Zippi, P., and Gangloff, R. A., 2007, Paleontology, sedimentology, paleopedology, and palynology of the Kikak-Tegoseak Dinosaur Quarry, (Prince Creek Formation: Late Cretaceous), northern Alaska (abs.), in Ceratopsian Symposium, Royal Tyrrell Museum, Drumheller, Alberta, Canada.

McCarthy, P. J., Brandlen, E., Flaig, P. P., and Fiorillo, A. R., 2007, Late Cretaceous, high latitude paleoenvironments at the Kikak-Tegoseak Dinosaur Site, Prince Creek Formation, North Slope Alaska (abs.), in Geological Society of America National Meeting, Denver, Colorado.

McCarthy, P. J., Brandlen, E., Flaig, P. P., and Fiorillo, A. R., 2007, Late Cretaceous, high latitude paleoenvironments at the Kikak-Tegoseak Dinosaur Site, Prince Creek Formation, North Slope Alaska (abs.), in Joint North-Central and South-Central Geological Society of America Meeting, University of Kansas, Lawrence, Kansas.

Flaig, P. P., and Isbell, J. L., 2005, Changes in fluvial architecture across the Permian-Triassic boundary, Beardmore Glacier Region, Central Transantarctic Mountains, Antarctica (abs.), in Geological Society of America National Meeting, Salt Lake City, Utah.

Isbell, J. L., and Flaig, P. P., 2005, Fluvial stratigraphy across the Permian-Triassic boundary in the Beardmore Glacier Region, Antarctica: was plant extinction or tectonics the driving mechanism for producing changes in fluvial style? (abs), in Earth System Processes 2, Calgary, Alberta, Canada.

Isbell, J. L., Flaig, P. P., Miller, M. F., and Sidor, C. A., 2005, Fluvial architecture of Permian and Triassic strata in the Beardmore Glacier Region, Antarctica: was plant extinction or tectonics the cause of fluvial changes across the P-T Boundary? (abs.) in Parkhurst, R. J., and Veiga, G. C., eds., Gondwana 12: geological and biological heritage of Gondwana: Abstracts, Academia Nacional de Ciencias, Cordoba, Argentina, p. 209.

Flaig, P. P., Burton, D., Wood, L. J., 2014, Identifying the nature and extent of the Loyd Sandstone member of the Mancos Shale in outcrop and subsurface data in the Ranglely area of Colorado (poster presentation) (abs.): AAPG Annual Convention and Exhibition, Houston, April 2014.

Hasiotis, S. T., Jackson, A., Flaig, P. P., Isbell, J., 2014, Ichnocoenoses and ichnofacies of marine and continental deposits in Permian-Triassic strata of the Beacon Supergroup, Beardmore Glacier Area, central Transantarctic Mountains, Antarctica (poster presentation) (abs.): AAPG Annual Convention and Exhibition, Houston, April 2014.

Hudock, J. W., Flaig, P. P., Wood, L. J., 2014, Complex Cretaceous shorelines existed during deposition of the McMurray Formation of Alberta, Canada as evidenced by bedrock-controlled estuaries and associated flood tidal deltas in the Upper McMurray (poster presentation) (abs.): AAPG Annual Convention and Exhibition, Houston, April 2014.

Service

External Committees Participation

Chair, Annual Meeting Poster Committee, Gulf Coast Association of Geological Societies August, 2012

Proposal Review Panels Participation

Journal of Sedimentary Research (Article), 2013

Bureau of Economic Geology, The University of Texas at Austin Report of Investigations

(Article), 2012

Geology (Article), 2012

Journal of Sedimentary Research (Article), 2011

Society for Sedimentary Geology (Conference Volume: 29th Annual Gulf Coast SEPM Perkins Conference), 2010

2014, Article: Sedimentology.

2013, Article: Journal of the Geological Society.

Teaching and Advising

Student Committee Participation

Member, Thesis Committee, Ph.D., Thesis, Migdalys Salazar, , The University of Texas at Austin

Supervisor, M.S., Thesis, Rebecca Jones, , The University of Texas at Austin

Supervisor, M.S., Thesis, Timothy Prather, Facies, architecture, porosity, permeability variability within a river-dominated delta of the Loyd Sandstone, Rangley, Colorado, The University of Texas at Austin

Presentations

Presentations

The Late Cretaceous coastal plain of Arctic Alaska: Placing Pachyrhinosaurus perotorum and other North Slope dinosaurs in a paleoenvironmental context: presented at Southern Methodist University Colloquium Series, Dallas, Texas, April 2013.

The Late Cretaceous coastal plain of Arctic Alaska: Sandy-splays, swamps, soils, and savagely surging streams: invited talk presented at the University of Wisconsin-Milwaukee Colloquium series, Milwaukee, Wisconsin, March 2013.

The application of lidar (light detection and ranging) technology to outcrop geology with an example from Sagwon Bluffs on the North Slope of Alaska: invited talk presented at the Alaska Geological Society February Meeting, Anchorage, Alaska, 2012.

Transantarctic tales: extraordinary geology and complex logistics in the Central Transantarctic Mountains, Antarctica: invited talk presented at the Lakeway Men's Club, Austin, Texas, 2012.

Alluvial architecture of a low net:gross heavy oil reservoir analogue: the Prince Creek Formation, North Slope-Alaska: presented at the Quantitative Clastics Laboratory Industrial Associates Annual Meeting, Bureau of Economic Geology, Austin, Texas, 2011.

Investigations of Late Cretaceous Arctic paleohydrology by integration of terrestrial stable isotope proxies: presented at Geological Society of America Annual Meeting, Minneapolis, Minnesota, 2011.

Lidar-enhanced facies, architectural, and statistical analyses of a potential Paleocene reservoir: presented at Geological Society of America Annual Meeting, Minneapolis, Minnesota, 2011.

Reexamination of fluvial stacking pattern across the Permian-Triassic boundary in the Central Transantarctic Mountains, Antarctica: poster presented at Geological Society of America Annual Meeting, Minneapolis, Minnesota, 2011.

Tectonically driven facies and architectural change across the Permian-Triassic boundary: Beardmore Glacier Region, Central Transantarctic Mountains, Antarctica: poster presented at Geological Society of America Annual Meeting, Minneapolis, Minnesota, 2011.

A tidally-influenced, high-latitude alluvial/coastal plain: the Late Cretaceous (early Maastrichtian) Prince Creek Formation, North Slope, Alaska: invited talk presented at the West Texas

Geological Society Meeting, Midland, Texas, 2010.

Cretaceous geology on the North Slope of Alaska: invited talk presented at the Austin Gem and Mineral Society Meeting, Austin, Texas, 2010.

Regional geology and reservoir potential of the Schrader Bluff, Prince Creek, and Sagwon Member of the Sagavanirktok Formation (Late Cretaceous to early Tertiary) Sagavanirktok Quadrangle, North Slope, Alaska: invited talk presented at the Alaska Geological Society Annual Meeting, University of Alaska--Fairbanks, Fairbanks, Alaska, 2009.

Sedimentology, alluvial architecture, and lidar (light detection and ranging): Paleocene Prince Creek and Sagavanirktok Formations Sagwon Bluffs, North Slope, Alaska: presented at the Quantitative Clastics Laboratory Industrial Associates Annual Meeting, Bureau of Economic Geology, Austin, Texas, 2009.

A sedimentological tour of the dinosaur-bearing Late Cretaceous Prince Creek Formation, North Slope, Alaska: invited talk presented at Bureau of Economic Geology, Jackson School of Geosciences, The University of Texas at Austin, Austin, Texas, 2008.

Alluvial architecture of the Late Cretaceous Prince Creek Formation, North Slope, Alaska: poster presented at AAPG/SEPM National Meeting, San Antonio, Texas, 2008.

Regional geology and reservoir potential of the Schrader Alluvial architecture and fluvial facies of tidally-influenced alluvial/delta plain deposits of the Late Cretaceous Prince Creek Formation: Colville Basin, North Slope, Alaska: presented at River to Rock Record International Conference, Aberdeen, Scotland, 2008.

Tidally-influenced, high-latitude alluvial/deltaic deposits of the dinosaur-bearing Late Cretaceous Prince Creek Formation: North Slope, Alaska: presented at Geological Society of America National Meeting, Houston, Texas, 2008.

A Late Cretaceous, alluvial paleoenvironment: the Prince Creek Formation, North Slope of the Brooks Range, Alaska: poster presented at the Joint North-Central and South-Central Geological Society of America Meeting, University of Kansas, Lawrence, Kansas, 2007.

Alluvial deposits from low energy streams and associated floodplain sedimentation: the Upper Cretaceous Prince Creek Formation, North Slope of the Brooks Range, Alaska: poster presented at the Alaska Geological Society Meeting, Fairbanks, Alaska, 2007.

Alluvial facies and facies associations within the Upper Cretaceous Prince Creek Formation, North Slope, Alaska: poster presented at the Geological Society of America Meeting, Denver, Colorado, 2007.

Geology and logistics in the Arctic National Wildlife Refuge, on the Dalton Highway, and along the Colville River: "What two crazy University of Alaska-Fairbanks Graduate students did last summer...": invited talk presented to the Denali Foundation, Denali Education Center, McKinley Village, Alaska, 2007.

Late Cretaceous, high latitude paleoenvironments at the Kikak-Tegoseak Dinosaur Site, Prince Creek Formation, North Slope Alaska: presented at the Geological Society of America National Meeting, Denver, Colorado, 2007.

Late Cretaceous, high latitude paleoenvironments at the Kikak-Tegoseak Dinosaur Site, Prince Creek Formation, North Slope Alaska: presented at the Joint North-Central and South-Central Geological Society of America Meeting, University of Kansas, Lawrence, Kansas, 2007.

Low energy alluvial deposits from the Upper Cretaceous Prince Creek Formation, National Petroleum Reserve, North Slope, Alaska: poster presented at AAPG National Meeting, Long Beach, California, 2007.

Paleontology, sedimentology, paleopedology, and palynology of the Kikak-Tegoseak Dinosaur Quarry, (Prince Creek Formation: Late Cretaceous), northern Alaska: presented at Ceratopsian

Symposium, Royal Tyrrell Museum, Drumheller, Alberta, Alaska, 2007.

Depositional environments of the Upper Cretaceous Prince Creek Formation, Kikak-Tegoseak Dinosaur Site, North Slope, Alaska: poster presented at the Combined GSA Cordilleran Section, AAPG Pacific Section, and Western Regional SPE Meeting, Anchorage, Alaska, 2006.

Sedimentology and depositional environments of the Upper Cretaceous Prince Creek Formation, North Slope, Alaska: poster presented at the Geological Society of America National Meeting, Philadelphia, Pennsylvania, 2006.

Changes in fluvial architecture across the Permian-Triassic boundary, Beardmore Glacier Region, Central Transantarctic Mountains, Antarctica: presented at the Geological Society of America National Meeting, Salt Lake City, Utah, 2005.

Fluvial stratigraphy across the Permian-Triassic boundary in the Beardmore Glacier Region, Antarctica: was plant extinction or tectonics the driving mechanism for producing changes in fluvial style?: invited talk presented at Earth System Processes 2, Calgary, Alberta, Canada, 2005.

Sandstone composition and tectonic setting of the Lower Permian Weller Coal Measures, Southern Victoria Land, Antarctica: poster presented at the North-Central GSA, Kansas City, Missouri, 2003.

Activities of a Professional Nature

Professional Societies

Alaska Geological Society

American Association of Petroleum Geologists

Geological Society of America

SEPM (Society for Sedimentary Geology)

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Research Support

Principal Investigator, A Potential Washover Fan in the McMurray Formation, Alberta, Canada, Marathon Oil Research Grant, \$48,000

Principal Investigator, Nature, Evolution, and Ichnology of Fluvial-Deltaic and Shallow-Marine Reservoir Analogues in Campanian-Maastrichtian Clastic Wedges of Arctic Alaska, BP Research Grant, \$75,000

Principal Investigator, A High-Latitude Shoreface to Coastal-Plain Transition: The Schrader Bluff and Prince Creek Formations, Shivugak and Uluksrak Bluffs, Colville River, North Slope, Alaska, Research Grants from Conoco Phillips and BP, \$25,000 (Conoco Phillips), \$50,000 (BP)