

**BONNIE FINE JACOBS
CURRICULUM VITAE**

ADDRESS: Roy M. Huffington Department of Earth Sciences
P.O. Box 750395
Southern Methodist University
Dallas, Texas 75275-0395

EDUCATION:

Ph.D. 1983, Geosciences, University of Arizona. Past Vegetation and Climate of the Mogollon Rim Area, Arizona.

M.S. 1978, Geosciences, University of Arizona. Vegetation and Modern Pollen Spectra in Sinaloa and Nayarit, Mexico.

B.A. 1974, Geology/Anthropology, State University of New York at Buffalo.

EMPLOYMENT:

2010 – present. Associate Professor, Roy M. Huffington Department of Earth Sciences, Southern Methodist University.

2009 – 2010. Founding Director, SMU Center for the Environment, Southern Methodist University.

2006 – 2010. Associate Professor, Roy M. Huffington Department of Earth Sciences, and Director, Environmental Science & Studies Programs, Southern Methodist University.

2000 – 2006. Assistant Professor and Director, Environmental Science Program, Southern Methodist University.

2001- Present. Research Associate Professor II of Biological Sciences, Southern Methodist University.

1995 - 2000. Adjunct Associate Professor, Departments of Anthropology and Geological Sciences, Southern Methodist University.

1986 - 1995. Adjunct Assistant Professor, Southern Methodist University, Department of Geological Sciences, Southern Methodist University.

1985 – Present. Scientist, and Director of Palynology Laboratory, Institute for the Study of Earth and Man, Southern Methodist University.

1984 - 2000. Adjunct Assistant Professor, Department of Biological Sciences, Southern Methodist University.

1983 - 1995. Adjunct Assistant Professor Department of Anthropology, Southern Methodist University.

1981 - 1983. Palynologist, National Museums of Kenya, Nairobi, Kenya.

RESEARCH INTERESTS:

Paleobotany of Cenozoic and Cretaceous deposits of East Africa and North America. Application of pollen analysis and paleobotany to Cenozoic and Cretaceous geological and environmental problems.

MEMBERSHIPS:

Geological Society of America
American Institute of Biological Sciences
Botanical Society of America
International Organization of Paleobotany
Paleobotanical Section of the Botanical Society of America
The Paleontological Society

AWARDS AND GRANTS:

2011 – 2014. National Science Foundation. “Collaborative Research: A multi-proxy approach to Early Miocene community, landscape, and climate reconstruction, Ethiopian Plateau”, with SMU is Lead, \$383,129 (SMU Budget, \$173,995).

2009 - 2010. National Science Foundation. Supplemental Funding for “A Geosystems Approach to Paleobotany, Isotope Geochemistry, and Paleocology of the Late Oligocene Chilga Deposits, Northwest Ethiopian Plateau”, with Co-PI Neil Tabor. \$21,628.

2006 – 2009. National Science Foundation. “A Geosystems Approach to Paleobotany, Isotope Geochemistry, and Paleocology of the Late Oligocene Chilga Deposits, Northwest Ethiopian Plateau”, with Co-PI Neil Tabor. \$300,505.

2006 – 2007. University Research Council, SMU. \$3,000.

- 2005 – 2006. National Geographic Society, “Paleobotany and Isotope Geochemistry of the Oligocene Chilga Deposits of the Northwest Ethiopian Plateau”. \$25,530.
- 2003 - 2006. National Science Foundation. “Acquisition of a Variable Pressure Scanning Electron Microscope for Multiple Use in Research and Education”, with Co-PIs Louis Jacobs and Radovan Kovacevic. \$299,260.
- 2000 - 2003. National Science Foundation, “Eocene paleobotany and paleoecology of the Singida District, Tanzania”. \$75,000.
- 1995 -1997. National Science Foundation Career Advancement Award, “The Interpretation of Climate from Leaf Form: Application to the Miocene of Africa.”
1990. L.S.B. Leakey Foundation grant, “SEM Analysis of 6 My Old Grasses from Kenya.”

PUBLICATIONS:

- In preparation: **Jacobs, B.F.**, Tabor, N.J., and Pan, A.D. A multi-proxy approach to Late Oligocene (27 - 28 Ma) paleoclimate reconstruction at Chilga, Ethiopia. For *Palaeogeography, Palaeoclimatology, Palaeoecology*.
- In Revision: Le Page, B. and **Jacobs, B.F.** Insights from Paleohistory Illuminate Future Climate Change Effects on Wetlands. Book Chapter, *Function and Distribution of Wetlands* (Beth Middleton, Ed.), Springer.
- In Press: Pan, A.D., Currano, E., **Jacobs, B.F.**, Feseha, M., Tabor, N., and Herendeen, P.S. Fossil *Newtonia* (Fabaceae: Mimoseae) seeds from the early Miocene (22 – 21 Ma) Mush Valley in Ethiopia. For *Plant Systematics and Evolution*.
- 2011: Currano, E., **Jacobs, B.F.**, Pan, A.D. and Tabor, N.J. Inferring ecological disturbance in the fossil record: A case study from the late Oligocene of Ethiopia. *Palaeogeography, Palaeoclimatology, Palaeoecology*. doi:10.1016/j.palaeo.2011.06.007
- 2011: García Massini, J.L. and **Jacobs, B.F.** Palynological assemblages from a Late Oligocene tuff sequence as indicators of ecological change through time. *Review of Palaeobotany and Palynology* 164: 211–222.

- 2010: **Jacobs, B.F.**, Pan, A.D., and Scotese, C. A review of the Cenozoic vegetation history of Africa. Pp 57-72 In: (Werdelin, L. and Sanders, W., eds.) Cenozoic Mammals of Africa. University of California Press.
- 2010: Pan, A., **Jacobs, B.F.**, Herendeen, P. Detarieae sensu lato (Fabaceae) from the Late Oligocene (27.23 Ma) Guang River flora of north-western Ethiopia. Botanical Journal of the Linnean Society. 163: 44 – 54.
- 2010: Jiménez-Moreno, G., Anderson, R.S., Desprat, S., Grigg, L.D., Grimm, E.C., Heusser, L.E., **Jacobs, B.F.**, López-Martínez, C., Whitlock, C., Willard, D.A. Millennial-scale variability during the last glacial in vegetation records from North America. Quaternary Science Reviews 29: 2865-2881.
- 2010: García Massini, J.L., **Jacobs, B.**, and Tabor, N. Paleoenvironmental reconstruction of Late Oligocene terrestrial volcanoclastic deposits from the northwestern Ethiopian Plateau. Palaeontologia Electronica 13(1): 13.1.6A.
- 2009: Parrish, J.T., Fiorillo, A., **Jacobs, B.F.**, Currano, E. and Wheeler, E. The Ketavik Formation: New stratigraphic unit and its implications for the Paleogene paleogeography and paleoclimate of southwestern Alaska. Palaeogeography, Palaeoclimatology, Palaeoecology. doi:10.1016/j.palaeo.2009.09.008.
- 2009: García Massini, J.L. and **Jacobs, B.** Cretaceous-Cenozoic record of ferns in Africa. In: X. van der Burgh, J. van der Maesen & J.-M. Onana (eds), Systematics and Conservation of African Plants, pp. 201–220. Royal Botanic Gardens, Kew.
- 2009: Pan, A.D. and **Jacobs, B.F.** The earliest record of the genus *Cola* (Malvaceae sensu lato: Sterculioideae) from the Late Oligocene (28 – 27 Ma) of Ethiopia and leaf characteristics within the genus. Plant Systematics and Evolution. 283: 247-262.
2009. Bennington, J. B., W. A. Dimichele, et al. Critical issues of scale in paleoecology. *Palaios* 24(1): 1-4.
- 2007: **Jacobs, B.F.** Fossils from ancient forests in Africa provide a palaeobotanist with insight into past climates. Nature Journal Club 447:119.
- 2006: Kaiser, Thomas. M., Ansorge, Jörg. , Arratia, Gloria, Bullwinkel, Volker, Gunnell, Gregg F., Herendeen, Patrick, S., **Jacobs, Bonnie**, Mingram, Jens, Msuya, Charles, Musolf, Andreas,

- Naumann, Rudolf, Schulz, Ellen, and Wilde, Volker. The maar lake of Mahenge (Tanzania) – unique evidence of Eocene terrestrial environments in sub-Saharan Africa. *Zeitschrift der Deutschen Gesellschaft für Geowissenschaften* 157(3): 411-431.
- 2006: García Massini, J.L., **Jacobs, B. F.**, Pan, A., Tabor, N., Kappelman, J. The occurrence of the fern *Acrostichum* in Oligocene volcanic strata of the northwestern Ethiopian plateau. *International Journal of Plant Sciences*. 167: 909-918.
- 2006: **Jacobs, B.F.** The plant fossil record and implications for phytogeography in tropical Africa. Pp. 191-203 In: *Taxonomy and Ecology of African Plants, their Conservation and Sustainable Use. Proceedings of the 17th Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT) Congress, Ethiopia*. Kew, London.
- 2006: Pan, A., **Jacobs, B. F.**, Dransfield, J. and Baker, W. The fossil history of palms in Africa and new records from the Late Oligocene (~27 – 28 Myr) of northwestern Ethiopia. *Botanical Journal of the Linnean Society*. 151: 69-81.
- 2006: **Jacobs, B.F.** and Meltzer, D. Late Pleistocene and Holocene Pollen Analysis at Bellisle Lake, New Mexico. Pp 157-166 In: (Meltzer, D., ed.) *FOLSOM: new investigations of a classic Plaeoindian bison kill*. University of California Press, Berkeley.
- 2005 **Jacobs, B.F.**, Tabor, N., Feseha, M., Pan, A., Kappelman, J., Rasmussen, D., Sanders, W., Wiemann, M., Crabaugh, J., Garcia Massini, J. Oligocene terrestrial strata of northwestern Ethiopia: a preliminary report on paleoenvironments and paleontology. *Palaeontologia Electronica* Vol. 8, Issue 1; 25A:19p, 852KB; http://palaeo-electronica.org/paleo/2005_1/jacobs25/issue1_05.htm.
- 2005 Axsmith, B.J. and **Jacobs, B.F.** The conifer *Frenelopsis ramosissima* (Cheirolepidiaceae) in the Lower Cretaceous of Texas: phylogenetic, biogeographical and paleoecological implications. *International Journal of Plant Sciences* 166: 327-337.
- 2004 **Jacobs, B.F.** Paleobotanical studies from tropical Africa: relevance to the evolution of forest, woodland, and savannah biomes. *Philosophical Transactions of the Royal Society London B* 359: 1573-1583.
- 2004 **Jacobs, B.F.** and Herendeen, P.S. Eocene dry climate and woodland vegetation in tropical Africa documented by fossil leaves from

- northern Tanzania. *Palaeogeography, Palaeoclimatology, Palaeoecology* 213:115-123.
- 2003 Kappelman, J., Rasmussen, D. T., Sanders W.J., Feseha M., Bown T., Copeland, P., Crabaugh J., Fleagle J., Glantz M., Gordon A., **Jacobs B.**, Maga M., Muldoon K., Pan A., Lydia Pyne, Brian Richmond, Timothy Ryan, Erik R. Seiffert, Sen S., Todd L., Wiemann M. C., and Winkler A. New Oligocene mammals from Ethiopia and the pattern and timing of faunal exchange between Afro-Arabia and Eurasia. *Nature*. 426: 549-552.
- 2003 Gunnell, G., **Jacobs, B.F.**, Herendeen, P.S., Head, J.J., Kowalski, E., Msuya, C.P., Mizambwa, F.A., Harrison, T. Habersetzer, J. and Storch, G. Oldest placental mammal from sub-saharan africa: Eocene microbat from Tanzania - evidence for early evolution of sophisticated echolocation. *Palaeontologia Electronica* 5(3):10pp; http://palaeo-electronica.org/paleo/2002_2/africa/issue2_02.htm.
- 2002 **Jacobs, B.F.** Estimation of low latitude paleoclimates using fossil angiosperm leaves: examples from the Miocene Tugen Hills, Kenya. *Paleobiology* 28: 399-421.
- 2002 Kingston, J. D., **Jacobs, B. F.**, Hill, A. & Deino, A. L.. Stratigraphy, age and environments of the late Miocene Mpesida Beds, Tugen Hills, Kenya. *Journal of Human Evolution* 42: 95-116.
- 2001 Harrison, T., Msuya, C., Murray, A., **Jacobs, B.**, Baez, A., Ludwig, K. and Mundil, R. Paleontological investigations at the Eocene locality of Mahenge in north-central Tanzania, East Africa. Pp. 39-74. In: "Eocene Biodiversity: Unusual Occurrences and Rarely Sampled Habitats". Gregg Gunnell (ed.) Plenum Press, New York.
- 2000 Herendeen, P.S. and **Jacobs, B.F.** Fossil legumes from the Middle Eocene (46.0 Ma) Mahenge flora, Singida, Tanzania. *American Journal of Botany* 87: 1358-1366.
- 1999 **Jacobs, B.F.**, Kingston, J.D. and Jacobs, L.L. The origin of grass-dominated ecosystems. *Annals of the Missouri Botanical Garden* 86: 590-643.
- 1999 **Jacobs, B.F.** Estimation of rainfall variables from leaf characters in tropical Africa. *Palaeogeography, Palaeoclimatology, Palaeoecology* 145: 231-250.
- 1996 **Jacobs, B.F.** and Deino, A. Test of climate-leaf physiognomy regression models, their application to two Miocene floras from Kenya, and ⁴⁰Ar/³⁹Ar dating of the Late Miocene Kapturo site.

- Palaeogeography, Palaeoclimatology, Palaeoecology 123(1):259-271.
- 1992 **Jacobs, B.F.** and Winkler, D.A. Taphonomy of a middle Miocene autochthonous forest assemblage, Ngorora Formation, central Kenya. *Palaeogeography, Palaeoclimatology, Palaeoecology* 99:31-40.
- 1990 **Jacobs, B.F.** Lower Cretaceous diaspores from Malawi. *National Geographic Research* 6:516-518.
- 1989 **Jacobs, B.F.** Paleobotany of the Lower Cretaceous Trinity Group, Texas. In: *Field Guide to the Vertebrate Paleontology of the Trinity Group, Lower Cretaceous of central Texas*. Society for Vertebrate Paleontology Field Trip Guidebook, Nov. 1989.
- 1989 **Jacobs, B.F.** and Kabuye, C.H.S. An extinct species of *Polilia* (Commelinaceae) from the Miocene Ngorora Formation, Kenya. *Review of Palaeobotany & Palynology* 59:67-76.
- 1988 Brown, R.B. and **Jacobs, B.F.** Análisis e interpretación del polen de dos lagos del occidente de México. *Palynologica et Palaeobotanica* 1(1):45-59.
- 1987 **Jacobs, B.F.** and Kabuye, C.H.S. A middle Miocene (12.2 Ma) forest in the East African Rift Valley, Kenya. *Journal of Human Evolution* 16:147-155.
- 1987 Mworira, J., Dallmeijer, A., and **Jacobs, B.F.** Vegetation and modern pollen rain at Olorgesailie, Kenya. *Utafiti* 1(1):1-22.
- 1985 Hill, A., Drake, R., Tauxe, L., Monaghan, M., Barry, J., Behrensmeyer, A.K., Curtis, G., **Jacobs, B.**, Jacobs, L., Johnson, N. and Pilbeam, D. Neogene palaeontology and geochronology of the Baringo Basin, Kenya. *Journal of Human Evolution* 14:759-773.
- 1985 **Jacobs, B.F.**, Fall, P. and Davis, O. (Eds.) Late Quaternary vegetation and climates of the American Southwest. *American Association of Stratigraphic Palynologists Contribution Series No. 16*.
- 1985 **Jacobs, B.F.** Identification of pine pollen from the southwestern United States. *American Association of Stratigraphic Palynologists Contribution Series No. 16:155-168*.

- 1985 **Jacobs, B.F.** A middle Wisconsin pollen record from Hay Lake, Arizona. *Quaternary Research* 24:121-130.
- 1983 **Jacobs, B.F.** Pollen and the Past. *Kenya Past and Present* 15:2-7.
- 1982 **Jacobs, B.F.** Modern pollen spectra from surface soil samples, northern Nayarit, southern Sinaloa, Mexico. *Journal of the Arizona-Nevada Academy of Sciences* 17:1-14.
- 1973 **Fine, B.** Excavations at Venadillo, 1973. pp. 8-16d. In: *The Marismas Nacionales of Mexico: Report on continuing investigation of the archaeology and related natural science studies. West Mexican Prehistory, Part 7.* Department of Anthropology, State University of New York at Buffalo, New York.

PROFESSIONAL PRESENTATIONS (2000 – 2010):

- 2011 Jacobs, B.F., Currano, E.D., Pan, A.D., Tabor, N.J. Landscape, and Climate Reconstruction of Contemporary Localities at Chilga, Ethiopia (27 Ma) Using Multiple Biotic and Abiotic Proxies. International Conference on Paleoenvironmental Reconstruction, Climate Change and Modeling: June 17-18. Addis Ababa University. **Invited.**
- 2010 Jacobs, L. L., Polcyn, M. J., Araujo, R., Strganac, C., Mateus, O., Schulp, A. S., **Jacobs, B. F.**, Morais, M. L., Tectonic drift, climate, and paleoenvironment of Angola since the Cretaceous, American Geophysical Union.
- 2010 Jacobs, B.F. Cenozoic Evolution of African Landscapes Penn State University, **Invited**
- 2009 Jacobs, B.F. Late Oligocene Paleoclimate and Paleoecology of the Ethiopian Plateau Baylor University, Waco. 13 November **Invited**
- 2009 Currano, E., Jacobs, B. Tabor, N. Topical Session Co-Organizers: Phanerozoic Paleoenvironmental Evolution of Africa Geological Society of America Annual Meetings, Portland, Oregon, October 18-21.
- 2009 Jacobs, B.F., Currano, E., Pan, A., Tabor, N. Richness, diversity, and composition in Africa's Late Oligocene tropical forests: examples from Chilga, northwestern Ethiopia. Geological Society of America Annual Meetings, Portland, Oregon, October 18-21.
- 2009 Currano, E., and Jacobs, B. Insect Herbivore Damage as an Indicator of Local Ecosystem Disturbance in the Oligocene Tropics of

- Ethiopia. Geological Society of America Annual Meetings, Portland, Oregon, October 18-21.
- 2009 Tabor, N., Kappelman, J., Jacobs, B., Feseha, M., Rasmussen, D.T. Paleoenvironments of Upper Oligocene Strata, NW Ethiopian Plateau. Geological Society of America Annual Meetings, Portland, Oregon, October 18-21.
- 2008 Jacobs, B.F. Late Oligocene (26 – 27 Ma) climate and paleoecology of the Ethiopian Plateau from multiple lines of evidence University of Texas at Arlington. **Invited**.
- 2008 Jacobs, B.F., Wiemann, M., Tabor, N. Late Oligocene in situ woods from Chilga, northwestern Ethiopia: Implications for paleoecology and paleoclimate compared with other lines of evidence International Organisation of Paleobotany conference, Bonn, Germany. **Invited**.
- 2008 Jacobs, B.F., Herendeen, P., Wilde, V., Kaiser, T. Paleoecology and composition of the Middle Eocene Mahenge paleofloras, northern Tanzania International Organisation of Paleobotany conference, Bonn, Germany. **Invited**.
- 2008 Parrish, J.T., Fiorillo, A., Jacobs, B.F. A possible re-incised Eocene paleovalley and new formation near Brooks Camp, Naknek Lake, Alaska Geological Society of America annual meeting.
- 2008 Jacobs, B.F., Tabor, N., Pan, A. and García Massini, J. Multiple proxies provide paleoecology, paleoclimate, and Paleolandscape reconstructions for the late Oligocene of northwestern Ethiopia Geological Society of American annual meeting.
- 2007 Jacobs, B.F. and Pan, A. Paleoclimatic and taphonomic implications of Late Oligocene leaf assemblages from northwestern Ethiopia Geological Society of America annual meeting.
- 2006 Jacobs, B.F., Pan, A. and Scotese, C. Cenozoic vegetation change in Africa: A large-scale view of a small-scale process. Geological Society of America annual meeting.
- 2006 Axsmith, B. and Jacobs, B.F. New *Pseudofrenopsis varians* (Cheirolepidiaceae) Fossils from the Cretaceous of Texas and Arkansas: Structural and Paleoecological Implications Botanical Society of America annual meeting.

- 2006 Pan, A., and Jacobs, B.F. The Late Oligocene (28 – 27 Myr) Guang River flora of northwestern Ethiopia – A tropical riparian forest Botanical Society of America annual meeting.
- 2006 Garcia Massini, J., and Jacobs, B.F. Diversity and ecological significance of fern dominated horizons from the Late Oligocene on the northwestern Ethiopian Plateau. Botanical Society of America annual meeting.
- 2006 Jacobs, B.F., Tabor, N., and Pan, A. Making progress looking back: Paleoclimate reconstruction in tropical Africa Advances in Paleobotany, Symposium in honor of Jack Wolfe and David Dilcher, Gainesville, Florida. **Invited.**
- 2006 Wiemann, M., Jacobs, B.F., Kappelman, J. Oligocene climate of Chilga, Ethiopia, from wood physiognomy Advances in Paleobotany, Symposium in honor of Jack Wolfe and David Dilcher, Gainesville, Florida. **Invited.**
- 2006 Jacobs, B.F. and Pan, A. The African palm (Arecaceae) record and new records from the Late Oligocene (28 - 27 Ma) of northwestern Ethiopia Midcontinent Paleobotanical Colloquium.
- 2005 Jacobs, B.F., Pan, A., and Tabor, N. Paleoclimate and Paleoecology of Oligocene strata at Chilga, northwestern Ethiopian Plateau Geological Society of America Annual Meeting.
- 2005 Jacobs, B.F. Paleoclimate and Paleoecology of Oligocene Strata at Chilga, Northwestern Ethiopian Plateau **Invited.** University of North Texas.
- 2005 Jacobs, B.F. Paleobotany in the African Tropics: New Views of the Paleogene **Invited.** Field Museum of Natural History, Chicago, IL.
- 2005 Kappelman, J., Todd, L., Feseha, M., Jacobs, B., Rasmussen, D. T. Heritage management in northwestern Ethiopia. **Invited.** Society for Applied Anthropology Annual Conference.
- 2005 Pan, A.D., Jacobs, B.F., Dransfield, J., and Baker, W.J. The fossil history of palms in Africa and new records from the late Oligocene (~27-28 Ma) of Chilga Woreda, northwestern Ethiopia. **Invited.** An International Symposium on the Biology of the Palm Family, The Linnean Society of London and the Royal Botanic Gardens, Kew, England.
- 2004 Jacobs, B.F. Paleobotanical studies from the Tertiary of tropical Africa: relevance to the evolution of forest, woodland, and savanna

- biomes. **Invited**. Botanical . Research Institute of TX and Texas Christian University (co-host), Ft. Worth, TX.
- 2004 Jacobs, B.F. and Pan, A.D. Recent Paleogene paleobotanical research in tropical Africa. **Invited**. Symposium on Paleogene Paleobotany, VII International Organization of Paleobotany Conference, Bariloche, Argentina.
- 2004 Axsmith, B.J. and Jacobs. B.F. The Cheirolepidiaceae conifer *Frenelopsis ramosissima* associated with cones and wood in the Cretaceous of Texas: phylogenetic, structural and paleoecological implications. VII International Organization of Paleobotany Conference, Bariloche, Argentina.
- 2004 Jacobs, B.F. Paleobotanical studies from the Tertiary of tropical Africa: relevance to the evolution of forest, woodland, and savanna biomes. **Invited**. Royal Society of London Discussion Meeting, “Plant Phylogeny and the Origin of Major Biomes”, London, England.
- 2004 Kappelman, J., Feseha, M., Jacobs, B., Rasmussen, D.T., and Todd, L. Paleotourism development in the Chilga region near Gondar. Conference on Paleotourism, Addis Ababa, Ethiopia.
- 2003 Jacobs, B.F. The plant fossil record and implications for phytogeography in tropical Africa. XVII AETFAT (Association for the Taxonomic Study of the flora of Tropical Africa) Congress, Addis Ababa, Ethiopia. **Invited**.
- 2003 Pan, A.D. and Jacobs, B.F. Preliminary report of new plant assemblages from the Late Oligocene Chilga deposits of the Ethiopian western Plateau. Midcontinent Paleobotanical Colloquium, Field Museum of Natural History.
- 2003 Jacobs, B.F. Late Oligocene plant remains from the Chilga Basin, Ethiopia. International Paleoanthropological Conference, Addis Ababa, Ethiopia.
- 2003 Strickland, L.E., Jacobs, B.F., Thompson, R.S. and Anderson, K.H. Classifying plant morphological traits and investigating relationships between modern leaf characters and climates in eastern North America. International Quaternary Association Quadrennial Meetings (Poster).
- 2003 Pan, A. D. and Jacobs, B.F. New plant assemblages from the Late Oligocene Chilga deposits of the Ethiopian western plateau. Botanical Society of America Annual Meetings.

- 2002 Jacobs, B.F. Leaves and how they measure up as representatives of Tertiary climate in tropical East Africa: examples from Tanzania and Kenya. **Invited.** University of Michigan, Department of Geology, “Dorr Lecturer”, Ann Arbor, MI.
- 2002 Jacobs, B.F. and Meltzer, D.J. A palynological and paleoecological record associated with the Late Pleistocene Folsom Paleoindian type site, northeastern New Mexico. Botanical Society of America Annual Meetings.
- 2002 Jacobs, B.F. Eocene (46 Ma) rainfall estimates for tropical East Africa based on fossil leaves from Mahenge, Tanzania. Geological Society of America Annual Meetings.
- 2002 Jacobs, B.F. Leaves, and how they measure up as representatives of Tertiary climate in tropical East Africa: examples from Kenya. **Invited.** Department of Statistics, SMU.
- 2001 Jacobs, B.F. and Herendeen, P.S. Evidence for dry climate at the Eocene Mahenge site, north-central Tanzania. Botanical Society of America Annual Meetings.
- 2001 Herendeen, P.S. and Jacobs, B.F. Fossil legumes from the Eocene of Tanzania. Botanical Society of America Annual Meetings.
- 2001 Jacobs, B.F. The past climate of East Africa and relevance to human evolution. Sigma Xi Lecturer, **Invited.** SMU.
- 2001 Jacobs, B.F. Assessment of leaf morphology as a proxy for tropical climate and its application to East Africa’s past. **Invited.** Department of Geography, Arizona State University, Tempe, AZ.
- 2000 Jacobs, B.F. Assessment of leaf morphology as a proxy for tropical climate and its application to the East African past. **Invited.** University of Texas at Dallas, Department of Geosciences, Richardson, TX.

PUBLIC LECTURES and COMMUNITY OUTREACH (2006 – Present):

- 02/13/11 Invited Lecture for Collegium da Vinci “Women in Science” lecture series.
- 09/28/10 Helped organize and was panel member for WFAA Project Green, hosted by SMU. Attended by about 100 people,

providing an opportunity for education and for SMU student panel members to talk about what they do in academic and extra-curricular environmental programs.

- 05/07/09 Shepherd's Center, United Methodist Church, Invited Speaker
- 03/14/09 Western Interior Paleontological Society, Invited Seminar Speaker (Denver, CO)
- 03/07/09 Museum of the Red River, Seminar Speaker (Idabell, OK)
- 11/06/08 Science Teachers Association of Texas annual meeting, Invited Speaker
- 05/01/08 SMU Girls Talented and Gifted Program Invited Speaker
- 04/17/08 Dallas Regional Science Fair Luncheon Invited Speaker
- 04/19/08 American Association of University Women, Educational Outreach
- 11/10/07 Heard Museum of Natural History, Invited Speaker
- 10/09/07 Faculty Club Invited Speaker
- 09/24/07 Environmental Protection Agency Region 6 Office, Invited Speaker
- 04/05/07 Botanical Research Institute of Texas, Distinguished Lecturer
- 02/25/07 Collegium da Vinci, Dedman College, Invited Speaker
- 11/10/06 Highland Park Presbyterian Church, Invited Speaker
- 09/13/06 Wrote and Recorded "Free Speech" Segment at CBS Studios for Katie Couric Nightly News Program
- 09/08/06 Zonta Dallas Women's Club Luncheon Speaker
- 06/14/09 Dallas Paleontological Society, Invited Speaker
- 06/12/06 Discussion Panel, An Inconvenient Truth, Angelika Theatre
- 02/24/06 Dallas Paleontological Society, Invited Speaker
- 02/14/06 SMU Women's Club, Invited Speaker
- 01/17/06 Houston Gem and Mineral Society, Invited Speaker

PROFESSIONAL SERVICE:

2010 – Chair of Search Committee to hire Full Professor and Director of the SMU Center for the Environment.

2010 – Search Committee member, Roy M. Huffington Department of Earth Sciences.

2010 – Present: Dallas Museum of Science and Nature, Earth Systems Gallery Advisory Committee

2010 – Present: Dallas Museum of Science and Nature, Life, Then and Now Gallery Advisory Committee

2006 – Present: Botanical Research Institute of Texas, Education Committee

2000 – Present: Fort Worth Museum of Science and History, Exhibits Science Advisor

2000 – Present: Museum of Nature and Science, Dallas, TX, Exhibits Advisor

2006 – 2009: Moseley Award Committee (Chairman in 2009), Botanical Society of America

2001 – 2002: Chairman of the Paleobotanical Section of the Botanical Society of America

TEACHING (2000 – Present):

Earth Systems – GEOL 1301

Ecology. - BIOL 3307/GEOL 3307

Introduction to Environmental Science (lab class) - GEOL 1315

Paleoecology Graduate Seminar – GEOL 5368

Biogeography Graduate Seminar – GEOL 7300

Independent Study Faculty Advisor. - Earth Sciences

Internship Faculty Advisor. - Environmental Science

ADVISEES:

Primary Advisees:

Jordan Noret, M.S. Advisee, 2008 – present.

Daniel Danehy, M.S., 2010.

Juan Garcia Massini, PhD, 2008

Aaron Pan, PhD, 2007

Post-doctoral Fellows:

Ellen Currano – 2008-2009

Aaron Pan – 2007 - 2008

Advisee Committee Service:

Ricardo Miguel Nobrega Araujo, M.S., 2010 - present

Debra Stults, University of South Alabama, PhD., 2011

Stephanie Thomas, PhD., 2010.

Carolina Aquillon, M.S., 2010.

Peter Rose, M.S., 2004

Meena Balakrishnan, PhD., 2002

Jason Head, PhD., 2002

Jack Rogers, M.S., 2000

Elizabeth Gomani, PhD., 1999

PROGRAM DEVELOPMENT AT SMU:

1. Director, Environmental Science Program: Recruiting activities, web development, advising, lecture program. 2000 – 2010.
2. Director, Environmental Studies Program: Development of Curriculum and Program Origin in 2008, recruiting activities, web development, advising. 2007 – 2010.
3. Executive Committee, Campus Sustainability Committee: Worked collaboratively with faculty, staff, and students to establish this committee with approval and participation of SMU administrators. The Committee improves conservation of resources on campus, and aims to increase education and participation by faculty, staff, and students. Founding – Present.
4. Environmental Semester Abroad Development: Gained approval of curricula for semesters abroad in Kenya and Costa Rica through SMU's affiliation with The School for Field Studies.
5. SMU Center for the Environment: Worked collaboratively with other faculty and administrators, beginning in 2007, to propose, plan, and

implement a new Center focused on environmental research and education. Led search for Permanent Director, 2009-2010.