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:

- 2006 Present. Associate Professor, Roy M. Huffington Department of Earth Sciences, and Director, Environmental Science & Studies Programs, Southern Methodist University.
- 2009 2010. Founding Director, SMU Center for the Environment, 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:

The application of paleobotany and palynology to Cenozoic and Cretaceous geological and environmental problems. Research foci include the evolution of tropical African ecosystems, paleoclimate and paleoecological reconstruction, and historical biogeography in Africa and North America, within an integrated multidisciplinary framework.

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 Paleoecology 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 Paleoecology 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 preparation: Jacobs, B.F. and Herendeen, P.S. Middle Eocene Paleoflora from Mahenge, Tanzania. For Paleontologia Electronica.
- In Press: Engel, M., Pan, A.D. and **Jacobs, B.F.** A termite from the Late Oligocene of northern Ethiopia. Acta Palaeontologica Polonica.
- In Press: 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. Publication Date, 2012.
- 2012 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. International Journal of Plant Sciences (Cover Article) 173: 290-296.
- 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. 309: 242–252.
- 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 northwestern 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 volcaniclastic 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. <u>Palaios</u> 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-Sahara 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. <u>The fossil</u> history of palms in Africa and new records from the <u>Late</u> 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://palaeoelectronica.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 *Pollia* (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 Mworia, 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 Naçionales 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 – 2012):

- 2012 Jacobs, B.F. Guest Lectures at the Turkana Basin Institute, Kenya. March 5 – March 17. African Paleobotany and Paleoecology, Invited.
- 2012 Jacobs, B.F. Cenozoic Evolution of Africa's Tropical Ecosystems. Chicago Plant Sciences Symposium. Field Museum of Natural History. Invited.
- 2011 Jacobs, B.F. <u>Mid-Cenozoic Community Structure, Climate and Landscapes of the Ethiopian Plateau: A Multi Proxy Approach to Earth History December 7.</u> Yale Departments of Geology and Anthropology.
- 2011 Jacobs, B.F. Mid-Cenozoic Community Structure, Climate and Landscapes of the Ethiopian Plateau: A Multi Proxy Approach to Earth History October 28. SMU Roy M. Huffington Department of Earth Science. Invited.
- 2011 Jacobs, B.F. Mid-Cenozoic Community Structure, Climate and Landscapes of the Ethiopian Plateau: A Multi Proxy Approach to Earth History November 1. Kyoto University. Invited.

- 2011 Jacobs, B.F. and Sakai, T. <u>Initial Assessment of Paleoenvironmental context for Nakalipithecus Based upon Plant Macrofossils</u> November 4. Japanese Physical Anthropological Society Conference, Okinawa. **Invited**.
- 2011 Jacobs, B.F. <u>There's Always Something New Out of Africa</u>. , February 13. Dedman College Collegium da Vinci Lecture Series, SMU. **Invited**
- Jacobs, B.F., Currano, E.D., Pan, A.D., Tabor, N.J. <u>Landscape, and Climate Reconstruction of Contemporary Localities at Chilga, Ethiopia (27 Ma) Using Multiple Biotic and Abiotic Proxies.</u>
 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., <u>Tectonic drift, climate, and paleoenvironment of Angola since the Cretaceous</u>, American Geophysical Union.
- 2010 Jacobs, B.F. <u>Cenozoic Evolution of African Landscapes</u> Penn State University, **Invited**
- 2009 Jacobs, B.F. <u>Late Oligocene Paleoclimate and Paleoecology of the</u>
 <u>Ethiopian Plateau</u> Baylor University, Waco. 13 November **Invited**
- 2009 Currano, E., Jacobs, B. Tabor, N. Topical Session Co-Organizers:

 <u>Phanerozoic Paleoenvironmental Evolution of Africa</u> Geological
 Society of America Annual Meetings, Portland, Oregon, October 18-21.
- 2009 Jacobs, B.F., Currano, E., Pan, A., Tabor, N. <u>Richness, diversity, and composition in Africa's Late Oligocene tropical forests:</u>
 examples from Chilga, northwestern Ethiopia. Geological Society of America Annual Meetings, Portland, Oregon, October 18-21.
- 2009 Currano, E., and Jacobs, B. <u>Insect Herbivore Damage as an Indicator of Local Ecosystem Disturbance in the Oligocene Tropics of Ethiopia</u>. Geological Society of America Annual Meetings, Portland, Oregon, October 18-21.
- 2009 Tabor, N., Kappelman, J., Jacobs, B., Feseha, M., Rasmussen, D.T. <u>Paleoenvironments of Upper Oligocene Strata, NW Ethiopian</u> <u>Plateau</u>. Geological Society of America Annual Meetings, Portland, Oregon, October 18-21.

- 2008 Jacobs, B.F. <u>Late Oligocene (26 27 Ma) climate and paleoecology</u> of the Ethiopian Plateau from multiple lines of evidence University of Texas at Arlington. **Invited**.
- 2008 Jacobs, B.F., Wiemann, M., Tabor, N. <u>Late Oligocene in situ woods from Chilga, northwestern Ethiopia: Implications for paleoecology and paleoclimate compared with other lines of evidence</u> International Organisation of Paleobotany conference, Bonn, Germany. **Invited**.
- 2008 Jacobs, B.F., Herendeen, P., Wilde, V., Kaiser, T. <u>Paleoecology and composition of the Middle Eocene Mahenge paleofloras, northern Tanzania</u> International Organisation of Paleobotany conference, Bonn, Germany. **Invited**.
- 2008 Parrish, J.T., Fiorillo, A., Jacobs, B.F. <u>A possible reincised Eocene</u> paleovalley and new formation near Brooks Camp, Naknek Lake, <u>Alaska</u> 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. <u>Paleoclimatic and taphonomic implications</u>
 of Late Oligocene leaf assemblages from northwestern Ethiopia
 Geological Society of America annual meeting.
- 2006 Jacobs, B.F., Pan, A. and Scotese, C. <u>Cenozoic vegetation change in Africa: A large-scale view of a small-scale process</u>. 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. <u>The Late Oligocene (28 27 Myr) Guang</u>
 <u>River flora of northwestern Ethiopia A tropical riparian forest</u>
 Botanical Society of America annual meeting.
- 2006 Garcia Massini, J., and Jacobs, B.F. <u>Diversity and ecological</u> 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. <u>Making progress looking back:</u>
 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. <u>Oligocene climate of Chilga, Ethiopia, from wood physiognomy</u> Advances in Paleobotany, Symposium in honor of Jack Wolfe and David Dilcher, Gainesville, Florida. **Invited**.
- 2006 Jacobs, B.F. and Pan, A. <u>The African palm (Arecaceae) record and new records from the Late Oligocene (28 27 Ma) of northwestern Ethiopia Midcontinent Paleobotanical Colloquium.</u>
- 2005 Jacobs, B.F., Pan, A., and Tabor, N. <u>Paleoclimate and Paleoecology</u> of Oligocene strata at Chilga, northwestern Ethiopian Plateau Geological Society of America Annual Meeting.
- 2005 Jacobs, B.F. <u>Paleoclimate and Paleoecology of Oligocene Strata at Chilga, Northwestern Ethiopian Plateau</u> **Invited**. University of North Texas.
- 2005 Jacobs, B.F. <u>Paleobotany in the African Tropics: New Views of the Paleogene</u> **Invited**. Field Museum of Natural History, Chicago, IL.
- 2005 Kappelman, J., Todd, L., Feseha, M., Jacobs, B., Rasmussen, D. T. <u>Heritage management in northwestern Ethiopia</u>. **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. <u>Paleobotanical studies from the Tertiary of tropical</u>
 <u>Africa: relevance to the evolution of forest, woodland, and savanna biomes</u>. **Invited.** Botanical . Research Institute of TX and Texas Christian University (co-host), Ft. Worth, TX.
- 2004 Jacobs, B.F. and Pan, A.D. <u>Recent Paleogene paleobotanical research in tropical Africa</u>. **Invited**. Symposium on Paleogene Paleobotany, VII International Organization of Paleobotany Conference, Bariloche, Argentina.

- 2004 Axsmith, B.J. and Jacobs. B.F. <u>The Cheirolepidiaceous conifer</u>

 <u>Frenelopsis ramosissima</u> associated with cones and wood in the

 <u>Cretaceous of Texas: phylogenetic, structural and paleoecological</u>

 <u>implications.</u> VII International Organization of Paleobotany

 Conference, Bariloche, Argentina.
- 2004 Jacobs, B.F. <u>Paleobotanical studies from the Tertiary of tropical</u>
 <u>Africa: relevance to the evolution of forest, woodland, and savanna biomes</u>. **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. <u>Paleotourism development in the Chilga region near Gondar</u>.
 Conference on Paleotourism, Addis Ababa, Ethiopia.
- 2003 Jacobs, B.F. <u>The plant fossil record and implications for phytogeography in tropical Africa</u>. 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. <u>Preliminary report of new plant assemblages from the Late Oligocene Chilga deposits of the Ethiopian western Plateau</u>. Midcontinent Paleobotanical Colloquium, Field Museum of Natural History.
- 2003 Jacobs, B.F. <u>Late Oligocene plant remains from the Chilga Basin</u>, <u>Ethiopia</u>. International Paleoanthropological Conference, Addis Ababa, Ethiopia.
- 2003 Strickland, L.E., Jacobs, B.F., Thompson, R.S. and Anderson, K.H. <u>Classifying plant morphological traits and investigating</u> <u>relationships between modern leaf characters and climates in</u> <u>eastern North America</u>. International Quaternary Association Quadrennial Meetings (Poster).
- 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. <u>Leaves and how they measure up as representatives of Tertiary climate in tropical East Africa: examples from Tanzania and Kenya</u>. **Invited.** University of Michigan, Department of Geology, "Dorr Lecturer", Ann Arbor, MI.
- 2002 Jacobs, B.F. and Meltzer, D.J. <u>A palynological and paleoecological</u> record associated with the Late Pleistocene Folsom Paleoindian

- type site, northeastern New Mexico. Botanical Society of America Annual Meetings.
- 2002 Jacobs, B.F. <u>Eocene (46 Ma) rainfall estimates for tropical East</u>
 <u>Africa based on fossil leaves from Mahenge, Tanzania</u>. Geological Society of America Annual Meetings.
- 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. <u>Evidence for dry climate at the Eocene Mahenge site</u>, north-central Tanzania. Botanical Society of America Annual Meetings.
- 2001 Herendeen, P.S. and Jacobs, B.F. <u>Fossil legumes from the Eocene of Tanzania</u>. 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. <u>Assessment of leaf morphology as a proxy for tropical climate and its application to East Africa's past.</u> **Invited.**Department of Geography, Arizona State University, Tempe, AZ.
- Jacobs, B.F. <u>Assessment of leaf morphology as a proxy for tropical climate and its application to the East African past.</u> **Invited**.
 University of Texas at Dallas, Department of Geosciences, Richardson, TX.

PUBLIC LECTURES and COMMUNITY OUTREACH (2006 – Present):

- 04/21/12 Helped organize SMU's booths for Earth Day Dallas.
- 04/21/11 Helped organize and present SMU at Earth Day Dallas.
- 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:

- 2012 Chair-elect, SMU Sustainability Committee.
- 2012 Search Committee member, Roy M. Huffington Department of Earth Sciences.
- 2011 Search Committee member, Roy M. Huffington Department of Earth Sciences.
- 2011 SMU Engaged Learning Committee Member.
- 2011 Fall Semester, Interdisciplinary Institute initiative for Dedman College, committee member.
- 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 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

OTHER PROFESSIONAL ACTIVITIES

- 2009 (May 28-30): "Leaf Summit". Workshop hosted by Smithsonian Institution. Invited Participant.
- 2008 (Sept. 12-14): "Stranger Than We Can Suppose: Evaluating ecological possibilities past, present, and future". Evolution of Terrestrial Ecosystems Workshop, Smithsonian Institution. Invited participant.
- 2007 (Spt. 13-16): "Paleontological Powers of Ten: Issues of Scale in Paleoecology". Evolution of Terrestrial Ecosystems Workshop, Smithsonian Institution. Invited Participant.

NEWS AND OTHER MEDIA COVERAGE:

- 2011 "Scientist at Work" Blog for the New York Times from field locality, Ethiopia.
- 2011 Perot Museum of Nature and Science, Video Interview for "Career Inspiration" segment to be featured in permanent exhibits, Life Then and Now Gallery.
- 2011 Interview and photo shoot for D Magazine feature titled, "Dallas' Big Thinkers', published October, 2011.

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, M.S. Completed, 2012.

Tekie Tesfemichael Fisseha, 2012 – 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

Undergraduate Advisees: Internships and Independent Research

Sarah Karimi

Maribel Torales

Maris Chambers

Lauren Phillips

Louis Holbrook

Spencer Lacey

Robert Smith

Advisee Committee Service:

Meredith Faber, PhD, 2012

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

Debra Stults, Univesity 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. 2006 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.