

**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 and AFFILIATIONS:

2020 – Appointed Research Affiliate at the Perot Museum of Nature and Science through 10-31-23.

2021 August. Professor Emeritus, Roy M. Huffington Department of Earth Sciences, Southern Methodist University.

2013 – July 31, 2021. Professor, Roy M. Huffington Department of Earth Sciences, Southern Methodist University.

2006 – 2013. Associate Professor, Roy M. Huffington Department of Earth Sciences, Southern Methodist University.

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

2000 – 2010. Director, Environmental Science Program; 2008 – 2010 founding Director Environmental Studies Program, Southern Methodist University.

2000 – 2006. Assistant Professor 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, 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.

AWARDS AND HONORS:

October, 2022. Elected Fellow of the Geological Society of America.

June, 2018. Elected Fellow of the Paleontological Society.

2021 – 2023. National Science Foundation. “Collaborative Proposal: EAGER: Linking physiology and morphology in Grassland evolution via a novel analytical technique. Co-PI. \$298,064 total; award to SMU: \$169,328.

2019 - 2022 – Co-PI, “Acquisition of an SEM with quantitative X-ray detectors to research Geology-Climate-Biology connections”. Co-PI. \$420,320.

2017 – 2018 Supplemental Funding for “Collaborative Research: A multi-proxy approach to Early Miocene community, landscape, and climate reconstruction, Ethiopian Plateau”. \$16,147.

2012 – 2016. National Science Foundation. “ IPG (Integrative Paleoanthropology Grant): Research on East African Catarrhine and Hominoid Evolution”. **Senior Collaborator.** Kieran McNulty, Laura MacLatchy, Dan Peppe PI’s. \$1,000,000.

- 2014 – SMU University Research Council. \$2500.
- 2013 – Gerald J. Ford Research Fellowship. “Ford Fellowships are given to SMU faculty based on the significance of a faculty member’s scholarly contributions and future research plans.” \$15,000.
- 2011 – 2014 (Last no-cost extension expired 7-31-20). National Science Foundation. “Collaborative Research: A multi-proxy approach to Early Miocene community, landscape, and climate reconstruction, Ethiopian Plateau”. SMU is Lead, Jacobs is Lead PI, \$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”, Lead, 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”, Lead, 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”, Lead, with Co-PIs Louis Jacobs and Radovan Kovacevic. \$299,260.
- 2000 - 2003. National Science Foundation, “Eocene paleobotany and paleoecology of the Singida District, Tanzania”. Lead, \$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.**, Novello, A., Stromberg, C.A.E., Currano, E.D, Kabuye, C. & Judziewicz, E. New evidence of Miocene forest grasses (Poaceae: Pharoideae) from Ethiopia and Kenya: implications for biogeography, evolution and paleoecology. To be submitted to American Journal of Botany.

67. 2023: Pan, A.D., **Jacobs, B.F.**, Bush, R.T., de la Estrella, M., Grímsson, F., Herendeen, P.S., van der Burgt, X.M., Currano, E.D. First evidence of a monodominant (*Englerodendron*, Amherstieae, Detarioideae, Leguminosae) tropical moist forest from the early Miocene (21.73 Ma) of Ethiopia. PLOS ONE <https://doi.org/10.1371/journal.pone.0279491> .
66. 2023: Pan, A.D., **Jacobs, B.F.**, Currano, E.D., de la Estrella, M., Herendeen, P.S. and van der Burgt, X.M. A fossil *Anthonotha* (Leguminosae: Detarioideae: Amherstieae) species from the early Miocene (21.73 ma) of Ethiopia. International Journal of Plant Sciences. : <https://doi.org/10.1086/725429>.
65. 2023: Peppe, D. et al., 2023. Oldest evidence of abundant C4 grasses and habitat heterogeneity in eastern Africa. Science 380: 173–177.
64. 2021: Currano, E.D. and **Jacobs, B.F.** Ancient bug-bitten leaves from the early Miocene of Ethiopia elucidate the impacts of climate and plant nutrient concentrations on insect herbivore communities. Global and Planetary Change 12/2021. <https://doi.org/10.1016/j.gloplacha.2021.103655>
63. 2021: Jacobs, B.F. and Currano, E.D. “Perspectives” in Science. The impactful origins of Neotropical rainforests. Science 372: 28-29. <https://doi.org/10.1126/science.abh2086>
62. 2021: Currano, E.D., **Jacobs, B.F.** and Pan, A.D. Is Africa really an “odd man out”? Evidence for diversity decline across the Paleogene – Neogene boundary. International Journal of Plant Sciences; Special Issue in honor of Edie Taylor, 182(6):551–563.
61. 2021: Grímsson, F., Ulrich, S., Coiro, M., Graham, S.A., **Jacobs, B.F.**, Currano, E.D., Xafis, A., Zetter, R. *Hagenia* from the early Miocene of Ethiopia: evidence for possible niche evolution? Ecology and Evolution 11:5164–5186. DOI: 10.1002/ece3.7408
60. 2020: Currano, E.D., **Jacobs, B.F.**, Bush, R.T., McInerney, F., Novello, A., Tabor, N.J., Strömberg, C.A.E. Ecological dynamic equilibrium in an early Miocene (21.73 Ma) forest, Ethiopia. Palaeogeography, Palaeoclimatology, Palaeoecology 539: <https://doi.org/10.1016/j.palaeo.2019.109425>
59. 2019: Grímsson, Friðgeir, Graham, S.A., Coiro, M., **Jacobs, B.F.**, Xafis, A., Neumann, F. H., Scott, L., Sakala, J., Currano, E. D., Zetter, R. Origin and divergence of Afro-Indian Picrodendraceae: linking pollen morphology, dispersal modes, fossil records, molecular dating and paleogeography. Grana 58(4): 227-275.
58. 2019: Rasmussen, D., Friscia, A., Gutierrez, M., Kappelman, J., Miller, E., Muteti, S., Reynoso, D., Rossie, J., Spell, T., Tabor, N., Gierlowski-Kordesch,

- E., **Jacobs, B.**, Kyongo, B., Macharwas, M., Muchemi, F. A primitive Old World monkey from the earliest Miocene of Kenya and the evolution of cercopithecoid bilophodonty. *Proceedings of the National Academy of Sciences* www.pnas.org/cgi/doi/10.1073/pnas.1815423116
57. 2018 Grímsson, Friðgeir, **Jacobs, Bonnie**, van Valkenburg, Johan L.C.H., Wieringa, Jan J., Xafis, Alexandros, Tabor, Neil, Pan Aaron D., Zetter, Reinhard. *Sclerosperma* fossils from the late Oligocene of Chilga, north-western Ethiopia, *Grana*, 58: 81 – 98. DOI: 10.1080/00173134.2018.1510977.
56. 2018 Grímsson, Friðgeir, van Valkenburg, Johan L.C.H., Wieringa, Jan J., Xafis, Alexandros, **Jacobs, Bonnie**, Zetter, Reinhard. Pollen morphology of the African *Sclerosperma* (Arecaceae), *Grana*, DOI: 10.1080/00173134.2018.1519033.
55. 2017 Tesfamichael, T., **Jacobs, B.F.**, Tabor, N., Michel, L., Currano, E., Feseha, M., Barclay, R., Kappelman, J., and Schmitz, M. Settling the issue of "decoupling" between atmospheric carbon dioxide and global temperature: [CO₂]_{atm} reconstructions across the warming Paleogene-Neogene divide. *Geology* 45 (11): 999-1002. doi:10.1130/G39048.1.
54. 2017 Bush, R., Wallace, J., Currano, E.D., **Jacobs, B.F.**, McInerney, F.A., Dunn, R.E., Tabor, N.J. Leaf $\delta^{13}\text{C}$ and cell anatomy reveal shading and canopy structure in a Miocene forest from Ethiopia. *Palaeogeography, Palaeoclimatology, Palaeoecology*. 485: 593–604. <http://dx.doi.org/10.1016/j.palaeo.2017.07.015>
53. 2017 Wright, I.J., Dong, N., Maire, V., Prentice, I.C., Westoby, M., Díaz, S., Gallagher, R.V., **Jacobs, B.F.**, Kooyman, R., Law, E.A., Leishman, M.R., Niinemets, U., Reich, P.B., Sack, L., Villar, R., Wang, H., Wilf, P. Global climatic drivers of leaf size. *Science* 357: 917–921.
52. 2017 Sánchez Goñi, M.F. et al. The ACER pollen and charcoal database: a global resource to document vegetation and fire response to abrupt climate changes during the last glacial period. *Earth Syst. Sci. Data* 9: 679–695. <https://doi.org/10.5194/essd-9-679-2017>
51. 2017 Gulbranson, Erik L., **Jacobs, B.F.**, Hockaday, W. C., Wiemann, M. C., Michel, L.A., Richards, K., and Kappelman, J.W. Nitrogen-fixing symbiosis inferred from stable isotope analysis of fossil tree rings, Oligocene, Ethiopia. *Geology* 45: 687-690. doi:10.1130/G39213.1.
50. 2016 Xing, Yaowu, Maria A Gandolfo, Renske E Onstein, David J Cantrill, **Bonnie F Jacobs**, Gregory J Jordan, Svetlana Popova, Rashmi Srivastava, Sergey V Vikulin, Atsushi Yabe, and H.Peter Linder. Testing the biases in the rich Cenozoic angiosperm macrofossil record. *International Journal of Plant Sciences* 177: 371-388.

49. 2015 Engel, M., Currano, E., and **Jacobs, B.** The first mastotermitid termite from Africa (Isoptera: Mastotermitidae): A new species of *Mastotermes* from the early Miocene of Ethiopia. *Journal of Paleontology* 89: 1038-1042.
48. 2015 Colleary, C., Dolocan, A., Gardner, J., Singh, S., Wuttke, M., Rabenstein, R., Habersetzer, J., Schaal, S., Feseha, M., Clemens, M., **Jacobs, B.**, Currano, E.D., Jacobs, L.L., Lyng Sylvestersen, R., Gabbott, S.E., and Vinther, J. Chemical, experimental, and morphological evidence for diagenetically altered melanin in exceptionally preserved fossils. *PNAS* 112: 12592–12597.
47. 2014 Pan, A., **Jacobs, B.F.**, and Currano, E.D. Dioscoreaceae fossils from the late Oligocene and early Miocene of Ethiopia. *Botanical Journal of the Linnean Society*. 175: 17-28.
46. 2013 Engel, M., Pan, A.D. and **Jacobs, B.F.** A termite from the Late Oligocene of northern Ethiopia. *Acta Palaeontologica Polonica*. 58: 331–334.
45. 2012 Le Page, B., **Jacobs, B.F.**, and Williams, C. Insights from Paleohistory Illuminate Future Climate Change Effects on Wetlands. In: B.A. Middleton (ed.), *Global Change and the Function and Distribution of Wetlands*, pp. 3 -59. *Global Change Ecology and Wetlands* 1, DOI 10.1007/978-94-007-4494-3_1, © Springer Science+Business Media Dordrecht.
44. 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.
43. 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.
42. 2011 García Massini, J.L. and **Jacobs, B.F.** The effects of volcanism on Oligocene-age plant communities from the Ethiopian Plateau, and implications for vegetational resilience in a heterogeneous landscape. *Review of Palaeobotany and Palynology* 164: 211-222.
41. 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.
40. 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.
39. 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.
38. 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.
37. 2010 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*. 295: 348-362.
36. 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.
35. 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.
34. 2009 Bennington, J. B., W. A. Dimichele, et al. Critical issues of scale in paleoecology. *Palaios* 24(1): 1-4.
33. 2007 **Jacobs, B.F.** Fossils from ancient forests in Africa provide a palaeobotanist with insight into past climates. *Nature Journal Club* 447:119.
32. 2006 Kaiser, Thomas. M., Ansoerge, 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.
31. 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.
30. 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.

29. 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.
28. 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.
27. 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.
26. 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.
25. 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.
24. 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.
23. 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.
22. 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.
21. 2002 **Jacobs, B.F.** Estimation of low latitude paleoclimates using fossil angiosperm leaves: examples from the Miocene Tugen Hills, Kenya. Paleobiology 28: 399-421.

20. 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.
19. 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.
18. 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.
17. 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.
16. 1999 **Jacobs, B.F.** Estimation of rainfall variables from leaf characters in tropical Africa. *Palaeogeography, Palaeoclimatology, Palaeoecology* 145: 231-250.
15. 1996 **Jacobs, B.F.** and Deino, A. Test of climate-leaf physiognomy regression models, their application to two Miocene floras from Kenya, and $^{40}\text{Ar}/^{39}\text{Ar}$ dating of the Late Miocene Kapturo site. *Palaeogeography, Palaeoclimatology, Palaeoecology* 123(1):259-271.
14. 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.
13. 1990 **Jacobs, B.F.** Lower Cretaceous diaspores from Malawi. *National Geographic Research* 6:516-518.
12. 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.
11. 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.
10. 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.
9. 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.

8. 1987 Mworira, J., Dallmeijer, A., and **Jacobs, B.F.** Vegetation and modern pollen rain at Olorgesailie, Kenya. *Utafiti* 1(1):1-22.
7. 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.
6. 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.
5. 1985 **Jacobs, B.F.** Identification of pine pollen from the southwestern United States. American Association of Stratigraphic Palynologists Contribution Series No. 16:155-168.
4. 1985 **Jacobs, B.F.** A middle Wisconsin pollen record from Hay Lake, Arizona. *Quaternary Research* 24:121-130.
3. 1983 **Jacobs, B.F.** Pollen and the Past. *Kenya Past and Present* 15:2-7.
2. 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.
1. 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.

SPECIAL or KEYNOTE LECTURES:

- 2017 Keynote Speaker: “Traits Past, Present, and Future: Quantitative approaches to conservation and climate change biology in Africa”, a workshop and symposium held in the National Museums of Kenya, Nairobi, March 6 – 8, 2017.
- 2014 Guest Lecture, University of Poitiers, Institute of Paleoprimateology, Human Paleontology: Evolution and Paleoenvironments – UMR CNRS. March 12.
- 2012 Guest Lecture Series at the Turkana Basin Institute, Kenya. March 5 – March 17. African Paleobotany and Paleoecology.

2002 Leaves and how they measure up as representatives of Tertiary climate in tropical East Africa: examples from Tanzania and Kenya. University of Michigan, Department of Geology, “Dorr Lecturer”, Ann Arbor, MI.

NEWS AND OTHER MEDIA COVERAGE:

2020 – Being Brave. Essay In: “The Bearded Lady Project: Challenging the face of science”, Lexi Jaimeson Marsh and Ellen Currano (Eds.), Columbia University Press, New York.

2020 – Dallas Morning News article: If women scientists wore fake facial hair, would men take them more seriously? Anna Kuchment, February 24.

2019 – Interview about climate change on iHeart Radio, channel KXFR, 1190AM. Healthy Living, Healthy Planet. Taped 10-15-19. On air, 10-19-19.
<https://blog.smu.edu/research/2019/11/05/whats-the-effect-of-climate-change-on-plants/>

2019 – Provided statements for Climate Change Press Release. SMU PA, 9-4-19.

2016 – Participant in portrait and film, “The Bearded Lady Project. Challenging the Face of Science.” “A documentary film and photographic project celebrating the work of female paleontologists and highlighting the challenges and obstacles they face.” <https://thebeardedladyproject.com/>

2015 – SMU Featured News and Experts. “SMU palaeobotanist Bonnie Jacobs spent 15 years studying ancient plants to help predict future climate change SMU professor recounts adventure and discovery in Ethiopia”.
<http://www.smu.edu/News/2015/bonnie-jacobs-africa-16sept2015>

2015 – Subject of a book chapter titled, “An Ardent Adventurer” pp. 119-133 in: “Breaking In: Women’s Accounts of How Choices Shape STEM Careers” by Wolverton, A., Nagaoka, L., and Wolverton, M. Stylus Press, Sterling, VA. 243 pp.

2014 – Dallas Observer: “SMU’s Bonnie Jacobs Is Searching for History Beyond Ancient in the Trinity River Bottoms”
http://blogs.dallasobserver.com/unfairpark/2014/06/dallas_people_bonnie_jacobs.php

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 now 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.

LECTURES, SYMPOSIA, AND CONFERENCE PRESENTATIONS:

2019 Life and Climate on the Ethiopian Plateau: a Changing World from Paleogene to Neogene. University of Houston Department of Earth and Atmospheric Sciences, 10-11-19.

2018 Zetter, R., Grímsson, F., Jacobs, B.F. SEM investigation of the late Oligocene Chilga palynoflora, Ethiopia, East Africa. 10th European Palaeobotany and Palynology Conference, University College Dublin, Ireland. 12 – 17 August.

2018 Tabor, N.J., Kappelman, J.W. and Jacobs, B.F. Stable hydrogen and oxygen isotope compositions of the pedogenic minerals from Oligocene (~32 – 27 Ma) strata of the northwestern Ethiopian Plateau: Implications for paleotemperature, paleoenvironment and paleoelevation. Geological Society of America Abstracts with Programs. Vol. 50, No. 6, ISSN 0016-7592 doi: 10.1130/abs/2018AM-324321.

2017 Jacobs, B.F., Currano, E.D., and Pan, A.D. Africa’s Miocene tectonic, physiographic, and climate evolution led to its low species richness and its status as the “Odd Man Out” among the world’s tropical regions. Geological Society of America Abstracts with Programs. Vol. 49, No. 6, ISSN 0016-7592 doi: 10.1130/abs/2017AM-308442.

2017 Bush, R.T., Currano, E.D., Jacobs, B.F., McInerney, F.A., Dunn, R.E., and Tabor, N.J. Bringing leaf shade proxies into the light: What do undulation index and leaf $\delta^{13}\text{C}$ mean in a fossil forest? Geological Society of America Abstracts with Programs. Vol. 49, No. 6, ISSN 0016-7592 doi: 10.1130/abs/2017AM-304746.

2017 Currano, E.D. and Jacobs, B.F. Ecological persistence in a closed forest ecosystem from the early Neogene Mush Valley lagerstätte, North-Central Ethiopia. Geological Society of America Abstracts with Programs. Vol. 49, No. 6, ISSN 0016-7592 doi: 10.1130/abs/2017AM-300809.

2017 Kinyanjui, R.N., Peppe, D.J., MacLachy, L.M., Kingston, J.D., Cote, S., Driese, S.G., Fox, D.L., Jacobs, B.F., Lehmann, T., Lukens, W.E., Rossie, J.B. Early Miocene vegetation across eastern Africa as reconstructed from phytolith data (Invited Presentation). Geological Society of America Abstracts with Programs. Vol. 49, No. 6, ISSN 0016-7592 doi: 10.1130/abs/2017AM-302390.

2017 Novello, A. Stromberg, C.A.E., Jacobs, B.F., McNulty, K.P., Michel, L.A. Phytolith evidence for the role of grasses in early Miocene vegetation of East

- Africa (Invited Presentation). Geological Society of America Abstracts with Programs. Vol. 49, No. 6, ISSN 0016-7592 doi: 10.1130/abs/2017AM-303864.
- 2017 Jacobs, B.F., Plant Fossil Guide to East Africa's Past. "Traits Past, Present, and Future: Quantitative approaches to conservation and climate change biology in Africa", a workshop and symposium held in the National Museums of Kenya, Nairobi, March 6 – 8, 2017.
- 2016 Tesfamichael, T., Jacobs, B.F., Tabor, N., Michel, L., Currano, E., and Feseha, M. Ancient atmospheric carbon dioxide from cooler late Oligocene and warmer early Miocene times, estimated from fossil leaves and carbon isotopes. Geological Society of America Annual Meetings, Denver, Colorado. Sept. 27. Abstracts with Programs. Vol. 48, No. 7 doi: 10.1130/abs/2016AM-280946
- 2016 Gulbranson, E.L., Jacobs, B.F., Hockaday, W.C., Wiemann, M.C., Richards, K., Harper, C.J., Kappelman, J., and Michel, L.A. Deciphering the fossil record of the rhizosphere: plant-microbial relationships inferred via paleobotanical and geochemical methods. Geological Society of America Annual Meetings, Denver, Colorado. Sept. 27. Abstracts with Programs. Vol. 48, No. 7 doi: 10.1130/abs/2016AM-285143
- 2016 Bush, R., Wallace, J., Currano, E.D., Jacobs, B.F., McInerney, F., Dunn, R. and Tabor, N. Leaf carbon isotopes and cell anatomy as indicators of shading and canopy structure in a Miocene forest from Ethiopia. Geological Society of America Annual Meetings, Denver, Colorado. Sept. 27. Abstracts with Programs. Vol. 48, No. 7. doi:10.1130/abs/2016AM-287591
- 2015 Jacobs, B.F. Plant fossil evidence of Cenozoic vegetation, climate, and ecological change in tropical Africa - how do they inform current environmental problems, and a short time scale? University of North Texas, November 13.
- 2015 Jacobs, B.F., Currano, E., and Feseha, M. Climate of the East African Highlands in the Early Neogene (21.7 Ma) Estimated from Fossil Leaves of the Mush Valley, Ethiopia. Geological Society of America Annual Meetings, Baltimore, Maryland. Oct. 31-Nov. 2.
- 2015 Currano, E.D., Jacobs, B.F., Feseha, M., and Pan, A.D. Reconstructing plant-insect interactions across the Paleogene-Neogene boundary in Ethiopia. Geological Society of America Annual Meetings, Baltimore, Maryland. Oct. 31-Nov. 2.
- 2015 Wiemann, M., Jacobs, B.F., Pan, A.D., Kappelman, J. Fossils forests of Chilga, Ethiopia. Geological Society of America Annual Meetings, Baltimore, Maryland. Oct. 31-Nov. 2.

- 2015 Jacobs, B.F. Climate and Vegetation History on the Ethiopian Plateau across the Paleogene – Neogene Divide (27 and 22 Mya). Departments of Botany and Geology, University of Wyoming, October 1.
- 2013 Co- Organizer of Symposium Session (with E.D. Currano): Paleoclimate and biotic change in Africa, Mesozoic to the Present. Geological Society of America Annual Meetings, Denver, CO, 27 – 30 October.
- 2013 Jacobs, L.L., Myers, T.S., Goncalves, A. O., Graf, J.F., Jacobs, B.F., Kappelman, J.W. Jr., Mateus, O., Polcyn, M.J., Rasbury, E.T., and Vineyard, D.P. Cabinda revisited: age and environment of new Cenozoic vertebrate fossils from northern Angola. Geological Society of America Annual Meetings, Denver, CO, 27-30 October.
- 2013 Wallace, J.R., Currano, E.D., and Jacobs, B.F. Cuticle characters are essential for the classification of tropical fossil leaves: a case study from the early Miocene of Ethiopia. Geological Society of America Annual Meetings, Denver, CO, 27-30 October.
- 2013 Noret, J.R., Tabor, N.J., Jacobs, B.F., Kappelman, J.W., Jr. New $\delta^{13}\text{C}$ data from the late Oligocene of the Chilga, Ethiopia, evidence for a closed-canopy tropical forest. Geological Society of America Annual Meetings, Denver, CO, 27-30 October.
- 2012 Jacobs, B.F. Fossils from the Land of Sheba – Ethiopia’s Forested Past. North Carolina Museum of Natural Sciences, National Fossil Day Symposium. October 17.
- 2012 Jacobs, B.F. Cenozoic Evolution of Africa's Tropical Ecosystems. Chicago Plant Sciences Symposium. Field Museum of Natural History.
- 2011 Jacobs, B.F. and Sakai, T. Initial Assessment of Paleoenvironmental context for *Nakalipithecus* Based upon Plant Macrofossils. November 4. Japanese Physical Anthropological Society Conference, Okinawa.
- 2011 Jacobs, B.F. Mid-Cenozoic Community Structure, Climate and Landscapes of the Ethiopian Plateau: A Multi Proxy Approach to Earth History. December 7. Yale Departments of Geology and Anthropology.
- 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.
- 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., 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.
- 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.
- 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., 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.
- 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.
- 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. 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 Kappelman, J., Todd, L., Feseha, M., Jacobs, B., Rasmussen, D. T. Heritage management in northwestern Ethiopia. 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. An International Symposium on the Biology of the Palm Family, The Linnean Society of London and the Royal Botanic Gardens, Kew, England.
- 2004 Axsmith, B.J. and Jacobs, B.F. The Cheirolepidiacean 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 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.
- 2004 Jacobs, B.F. and Pan, A.D. Recent Paleogene paleobotanical research in tropical Africa. Symposium on Paleogene Paleobotany, 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. Royal Society of London Discussion Meeting, “Plant Phylogeny and the Origin of Major Biomes”, London, England.
- 2003 Jacobs, B.F. Late Oligocene plant remains from the Chilga Basin, Ethiopia. International Paleoanthropological Conference, 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.
- 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.
- 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.
- 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.
- 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.

INVITED WORKSHOPS

- 2009 (May 28-30): “Leaf Summit”. Workshop hosted by Smithsonian Institution.
- 2008 (Sept. 12-14): “Stranger Than We Can Suppose: Evaluating ecological possibilities – past, present, and future”. Evolution of Terrestrial Ecosystems Workshop, Smithsonian Institution.

2007 (Spt. 13-16): “Paleontological Powers of Ten: Issues of Scale in Paleocology”. Evolution of Terrestrial Ecosystems Workshop, Smithsonian Institution.

PUBLIC LECTURES (2000 – Present):

02/03/16 Dallas Master Naturalists
 05/11/14 Dallas Fern Society.
 08/14/13 Dallas Paleontological Society.
 06/21/12 Amarillo Botanical Garden.
 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
 11/10/07 Heard Museum of Natural History, Invited Speaker
 10/09/07 SMU 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
 09/08/06 Zonta Dallas Women’s Club Luncheon Speaker
 06/14/09 Dallas Paleontological Society, Invited Speaker
 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

COMMUNITY OUTREACH (2006 – Present):

04/15/21..Career Day Lecture, Laredo Elementary School
 04/01/16 Career Day Lectures, Allen ISD, Ford Middle School
 05/15/15 Organizer and Speaker at Symposium in Honor of Meave Leakey.
 05/14/15 Co-host, Perot Museum of Nature and Science, Meave Leakey Lecture:
 Surprises from our past.
 02/27/15 Lecture luncheon for Dallas Garden Club: Changing Climate, Crazy
 Weather: What Does it Mean for Gardeners?
 04/21 – 4/22/14 Organized and worked at SMU’s booths for Earth Day Dallas.
 04/21 – 4/22/13 Organized and worked at SMU’s booths for Earth Day Dallas.
 11/15/12 Moderator for Energy Panel, SMU.
 05/18/12 Lecture for HPISD Ford Middle School Career Day.
 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.
- 04/19/08 American Association of University Women, Educational Outreach - science workshops for adolescent girls.
- 09/13/06 Wrote and Recorded "Free Speech" Segment at CBS Studios for Katie Couric Nightly News Program.
- 06/12/06 Discussion Panel, An Inconvenient Truth, Angelika Theatre

PROGRAM DEVELOPMENT AT SMU (University Level):

- SMU 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. It also engages with organizations outside SMU. Executive Committee 2006 – Present/ Chair 2012 - 2013.
- Educational Programming Committee: 2012-2015.
- Director, Environmental Science Program: Recruiting activities, web development, advising, lecture program. 2000 – 2010.
- Director, Environmental Studies Program: Development of Curriculum and Program Origin in 2008, recruiting activities, web development, advising. 2007 – 2010.
- 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.
- 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.
- SMU Honor's Task Force Committee: Committee charged with improving enrollment and retention of Honor's Students.

PROFESSIONAL SERVICE (Recent):

- 2014 – Present. Arthur James Boucot Research Grants Committee: Initial formation of grant opportunity, application process, review process and review and selection of grantees for The Paleontological Society.
- 2018 – Present. Fellows Committee: The Paleontological Society
- 2021 – National Science Foundation Review Panel. 12-2-21 to 12-5-21.
- 2016 – 2018. SMU Faculty Council (to the Dean of Dedman College).

- 2016 – 2020. Nominations Committee of the The Paleontological Society (Chair, since 2019).
- 2017 – National Science Foundation Review Panel. 9-19-17 to 9-22-17.
- 2014 – 2017. Board Member (SMU Representative), Botanical Research Institute of Texas. Served on Director Search Committee (2015) and continuing member of the Research Committee.
- 2017 – Host, Dr. Scott Wing, Smithsonian Institution National Museum of Natural History, at SMU and jointly for a public lecture at the Perot Museum of Nature and Science. Funded, in part, by the Scott Hawkins Lecture Fund at the Dedman College Interdisciplinary Institute.
- 2017 – Host visiting speaker at SMU, Dr. Ellen Currano, University of Wyoming, Departments of Botany and Geology.
- 2015 – Host, Meave Leakey Honorary Doctorate, SMU, 13-17 May.
- 2014 – 2016. Hamilton Chair Search Committee, Roy M. Huffington Department of Earth Sciences.
- 2013- Outside Dissertation Examiner: Victoria University, Melbourne, Australia.
- 2013 – 2015. University Admissions Council of the Faculty Senate: Admissions Office provides information and updates to this committee, monthly.
- 2013 – Associate Dean’s Committee on Teaching Evaluations: Purpose is to improve faculty teaching evaluation methods.
- 2013 - Reviewer: National Science Foundation, Nature, Nature Communications, Journal of Geophysical Research – Biogeosciences, Int’l. Association of Wood Anatomists, PloS ONE, Palaeo3, Review of Palaeobotany and Palynology.
- 2012 - Reviewer: National Science Foundation, Nature, Nature Communications, Palaeo3.
- 2012 – National Science Foundation Review Panel (10-23-12 to 10-26-12).
- 2012 – Present. Educational Programs Committee, SMU.
- 2012 – Chair, 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.
- 2011 – Fall Semester, Interdisciplinary Institute initiative for Dedman College, Committee.

TEACHING (2000 – 2020):

- Introduction to Palynology – GEOL 5369
 Field Ecology – GEOL 5399
 African Paleobotany – GEOL 6310 – Independent Graduate Study

Paleobotanical Methods – GEOL 6310 – Independent Graduate Study
 Paleobotany Graduate Seminar – GEOL 5399
 Introduction to Environmental Science - GEOL 1315 – Fall Semester in Taos, New Mexico. SMU-in-Taos Campus.
 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

ADVISEES:

Primary Advisees:

Marlee Cloos, 2016 – M.S. Completed, 2018
 Tom Green, M.S. 2017
 Tekie Tesfemichael Fisseha, PhD, 2017
 Jordan Noret, M.S. Advisee, 2008 – 2013, M.S. Completed, 2012.
 Daniel Danehy, M.S., 2010
 Juan Garcia Massini, PhD, 2008
 Aaron Pan, PhD, 2007

Post-doctoral Fellows:

Lauren Michel – 2016
 Ellen Currano – 2008-2009
 Aaron Pan – 2007 – 2008

Undergraduate Advisees: Internships and Independent Research

Alison Wenzel – Paleobotanical Research Assistant
 Taylor May – Environmental Studies Senior Thesis Project
 Jack Thalmann – Environmental Studies Senior Thesis Project
 Uma Lad – EPA Internship, Engaged Learning Project
 Moshe Espejel-Bilich – Engaged Learning Project with Region 6 EPA, Dallas.
 Meaghan Shaw – Engaged Learning Project with Rocky Mtn. Youth Corps and Americorps, Taos, New Mexico
 Aubrey Smading – EPA Internship, Engaged Learning Project
 Shannon Hart - Gaffney Family Scholar
 Meghan O’Keefe – Hamilton Research Assistant
 Maddie O’Connor – NSF Research Assistant
 E. Jewel Lipps – Engaged Learning and Senior Thesis Research Advisor (2014 - 2015), Gaffney Family Scholar (2013)
 Katharina Marino – Engaged Learning Research Advisor
 Sarah Karimi – Hamilton Undergraduate Research Advisor
 Maribel Torales – Internship Advisee
 Maris Chambers- Internship Advisee

Lauren Phillips - Internship Advisee

Louis Holbrook – Senior Project Advisee

Spencer Lacey – Senior Project Advisee

Robert Smith - Internship Advisee

Advisee Committee Service:

Jenna Batillo, PhD, 2012 - present

Christopher Kiahtipes, PhD, 2012-present

Alejandro Figueroa, PhD, 2013 - 2015

Ricardo Miguel Nobrega Araujo, M.S., 2010 - 2014

Meredith Faber, PhD, 2012

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