PETER DANIEL WILF

DEPARTMENT OF GEOSCIENCES, PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PA 16802 USA pwilf@psu.edu; www.geosc.psu.edu/~pwilf; +1-814-865-6721

updated May 2023

EMPLOYMENT

Professor of Geosciences, Pennsylvania State University, July 2013-.

OTHER APPOINTMENTS

National Museum of Natural History, Smithsonian Institution, Research Associate from 2001.

Faculty associate: Institutes of Energy and the Environment (co-funded faculty), Department of Biology (adjunct faculty), Earth and Environmental Systems Institute (faculty associate), and Plant Institute of the Huck Institutes of the Life Sciences, Pennsylvania State University.

Member of the IUCN Species Survival Commission Global Tree Specialist Group, 2020—.

Associate Professor of Geosciences, Pennsylvania State University 2007–2013. Assistant Professor of Geosciences, Pennsylvania State University 2002–2007.

Denver Museum of Nature & Science, Research Associate 2002-2014.

EDUCATION AND PRINCIPAL EXPERIENCE

- 1999–2002: Michigan Fellow and Visiting Assistant Professor, Museum of Paleontology, Department of Geological Sciences, and Michigan Society of Fellows, University of Michigan, Ann Arbor.
- 1998–1999: Postdoctoral Fellow, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Washington, DC.
- 1998: Ph.D., Department of Geology, University of Pennsylvania.
- 1988–1993: Performing musician, Philadelphia and New York City. Major band: *Intuitive Music Unit* (IMU), original, instrumental music, avant-blues-jazz-fusion.
- 1987: Pushkin Institute, Moscow. Russian language summer training program, American Council of Teachers of Russian.
- 1985–1988: Teacher of 7th and 8th grade mathematics, life science, and physical science, Westfield Friends School, Cinnaminson, NJ (full-time).
- 1985: B.A. Cum Laude, University of Pennsylvania: Russian History, Music and Mathematical Science. Benjamin Franklin Scholar.
- 1981: Friends' Central School. National Merit Scholar, Cum Laude, Foreign Language Award, Top Male Student Award.

MAJOR RESEARCH INTERESTS

I am a paleobotanist who uses fossil plants to investigate ancient ecosystems, biogeography, past environmental change, and the evolution and extinction of plants and plant-insect associations. I emphasize questions with relevance for modern climate change, biodiversity, biogeography, conservation, and ecology. Principal field areas include southern Argentina, several countries in SE Asia, and the Western Interior USA.

HONORS AND FELLOWSHIPS

- 2022: Fellow, American Association for the Advancement of Science (AAAS).
- 2022: Wilson Award for Excellence in Research, Penn State College of Earth & Mineral Sciences.
- 2017: Fellow, Paleontological Society.
- 2016: Fellow, Geological Society of America.
- 2016: Paul F. Robertson Breakthrough of the Year Award, Penn State College of Earth & Mineral Sciences.
- 2015: Visiting Researcher, Faculty of Science, Universiti Brunei Darussalam, Brunei.
- 2014: Distinguished Member, National Society of Collegiate Scholars.
- 2013: George W. Atherton Award for Excellence in Teaching, Pennsylvania State University.
- 2011: Kavli Fellow, National Academy of Sciences and Alexander von Humboldt Foundation, 2011 German-American Frontiers of Science Symposium.
- 2011: Faculty honoree, First Year Experience Faculty Appreciation Luncheon.

- 2009–2012 Distinguished Lecturer, The Paleontological Society.
- 2005-2010: David and Lucile Packard Fellow in Science and Engineering.
- 2005–2008: John T. Ryan Jr. Faculty Fellow, Penn State College of Earth and Mineral Sciences.
- 1999–2002: Michigan Fellow, University of Michigan.
- 1998–1999: Postdoctoral Fellow, Department of Paleobiology, National Museum of Natural History, Smithsonian Institution.
- 1997: Predoctoral Fellow, National Museum of Natural History, Smithsonian Institution.
- 1996–1997: Dissertation Fellow, University of Pennsylvania School of Arts and Sciences.
- 1996: Dean's Scholar, University of Pennsylvania.
- 1990: Band (I.M.U.) nominated for "Best New Jazz Artist" category of Philadelphia Music Awards by Philadelphia Music Foundation, June, 1990.

RESEARCH GRANTS

In progress	Role	Dates	Title	Source	Amount
P. Wilf, T. Serre, M.A. Gandolfo	Lead PI	7/15/2019- 6/30/2024	Collaborative Research: Origins of Southeast Asian Rainforests from Paleobotany and Machine Learning	NSF, EAR-FRES (Frontier Research in Earth Sciences) EAR 1925755 / 1925481 / 1925552	\$2,700,000 (\$1,560,000 to PSU, rest to Brown and Cornell)
P. Wilf, M.A. Gandolfo, N.R. Cúneo, E.A. Hajek	Lead PI	4/1/2016- 3/31/2020 (final ext. to 8/31/2024)	Collaborative Research: Patagonian Fossil Floras, the Keys to the Origins, Biogeography, Biodiversity, and Survival of the Gondwanan Rainforest Biome	NSF, DEB-SBS (Systematics and Biodiversity Sciences) DEB-1556666 / 1556136	\$1,429,024 (\$992,847 to PSU, rest to Cornell; plus \$36,720 covid supplement to PSU)
Completed					
P. Wilf	PI	3/15/15- 6/30/16	Travel Grant: First paleobotanical reconnaissance of Brunei	Penn State Institutes of Energy and Environment	\$12,500
P. Wilf, M.A. Gandolfo, N.R. Cúneo, R.L. Slingerland, A. Iglesias P. Wilf	Lead PI	8/15/2009- 7/31/2015 [w/ 1 yr. ext.]	Collaborative Research: Ancient Biodiversity Hotspot in Southern South America: Evolution of Speciose Floras in Patagonia from Latest Cretaceous to Middle Eocene David and Lucile Packard Fellowship for	NSF, DEB-Biodiversity Surveys and Inventories: DEB-0919071 / 0918932 The David and Lucile	\$1,572,746 (\$1,081,496 to PSU, rest to Cornell)
		5- 10/14/201 0 (ext. 10/31/201 5)	Science and Engineering	Packard Foundation	
P. Wilf, M.A. Gandolfo, N.R. Cúneo, C.C. Labandeira, K.R. Johnson	PI	2004-2009	Extremely diverse fossil floras from the Paleogene of Patagonia, Argentina: Implications for origins of high plant and insect diversity in South America	NSF, DEB-Biodiversity Surveys and Inventories and EAR- Geology and Paleontology	\$525,000
P. Wilf	PI	2005-2008	John T. Ryan, Jr. Faculty Fellowship	Penn State College of Earth and Mineral Sciences	\$33,000
P. Wilf, D. Royer	PI	2004-2007	Why do leaves have teeth? Breakthroughs in paleoclimate analysis from biological understanding of leaf shape	ACS-PRF Type AC	\$80,000
P. Wilf	PI	2003-2006	Acquisition of equipment for a paleobotany laboratory at Penn State	NSF, EAR GEO- Instrumentation and Facilities	\$42,130
P. Wilf, M.A. Gandolfo, N.R. Cúneo, K.R. Johnson	PI	2002-2004	Investigations of exceptionally diverse floras from the Paleogene of Patagonia	National Geographic Society Committee for Research and Exploration	\$20,600
P. Wilf	PI	2004	Recovery of plant-insect associations from the end-Cretaceous extinction, Great Plains region, USA	American Philosophical Society	\$4,000
P. Wilf	PI	2003	Terrestrial paleobiology of South America, Cretaceous through Neogene	ACS-PRF Type SE	\$2,400

P. Wilf, D. Uhl	PI	2003-2004	Leaf venation density as a tool for understanding ancient vegetation, plant-animal interactions, and climate changes	Wilson Research Initiation Grant (from Penn State EMS College)	\$6,266
C.C. Labandeira, P. Wilf, K.R. Johnson	Co-PI	2001-2003	From the latest Cretaceous to the early Eocene: Role of temporal scale for understanding change in plant-insect associations	Smithsonian Scholarly Studies	\$46,000
P. Wilf	PI	2001	A new look at leaves as climate indicators	Univ. Michigan Undergraduate Research Opportunities Program, Faculty Mini-Grant	\$2,300
C.C. Labandeira, P. Wilf, K.R. Johnson	Co-PI	2001	Insect herbivore response to the early Cenozoic thermal interval	National Geographic Society Committee for Research and Exploration	\$3,400
P. Wilf	PI	2000-2003	A new look at leaves as climate indicators	ACS-PRF Type G	\$25,000
P. Wilf	PI	1997	Global warming 55 million years ago: How was the vegetation of South America affected?	University of Pennsylvania Research Foundation and Andrew W. Mellon Foundation	\$10,000
P. Wilf	"PI"	1994, 1995	Student grants from the societies (5 total)	Geological Society of America (2), Sigma Xi (2), Paleontological Society	\$5,050

INVITED PROFESSIONAL TALKS (103)

- 2023, October. Pennsylvania Botany Symposium workshop, *Introduction to Plant Fossils and Paleobotany*.
- 2023, May. Stanford University, Department of Geological Sciences (in-person).
- 2022, August. Penn State University, Department of Geosciences (in-person).
- 2022, June. 11th European Palaeobotany and Palynology Conference, Sweden (in-person), for symposium *Palaeozoic and Mesozoic plant extinctions, hyperthermals and anoxia events.*
- 2022, April. New England Botanical Society (virtual, youtube link).
- 2022, February. SOL Seminar Online, Lantern Fruits of Gondwana (virtual, youtube link).
- 2022, February. Harvard University, Department of Organismic and Evolutionary Biology (virtual).
- 2021, March. Keynote, *Milestones of Palaeontology and Quaternary Geology in Indonesia, a conference in honor of the retirement of Prof. Yahdi Zaim.* Bandung Institute of Technology (virtual).
- 2020, February. Harvard University, Department of Organismic and Evolutionary Biology.
- 2019, November. Keynote, Lock Haven University Natural Science Convocation.
- 2019, July. Keynote, Flora Malesiana Symposium 11, Universiti Brunei Darussalam.
- 2019, April. Univ. Colorado Boulder, Department of Geological Sciences.
- 2018, November. Keynote, Entomological Societies of America and Canada Meeting, Vancouver, for symposium *Climate change: shifts in the geographical ranges and outbreak dynamics of forest insect pests and impacts on forest health.*
- 2018, November. University of British Columbia, Department of Forest & Conservation Sciences.
- 2018, November. Pennsylvania Botany Symposium, Penn State University.
- 2018 October. Boise State University Symposium: Forum on Biodiversity of Global Hotspots.
- 2018, July, Singapore Botanic Gardens Speaker Series.
- 2018, July. *Botany 2018*, Rochester, Minnesota, for colloquium *Plants at the Cretaceous-Paleogene boundary.*
- 2018, July. Botany 2018, Rochester, Minnesota, for colloquium Fossil plants at the intersection of evodevo and phylogeny: celebrating the contributions of Gar W. Rothwell to biodiversity and evolution.
- 2018, July. Association for Tropical Biology and Conservation 55th Annual Meeting, Kuching, Malaysia, for symposium *Origins, assembly and evolution of the South and SE Asian biota: insights from rocks, fossils, genes and plots.*
- 2018, June. Xishuangbanna Tropical Botanical Garden, Yunnan (Paleoecology Group).

- 2018, May. For 13th Harvard Plant Biology Symposium, Natural History Collections in the Anthropocene.
- 2017, October, "Lightning Talk" for EdTech Engage Symposium, *Al and Machine Learning in Higher Ed*, Penn State.
- 2017, August. 3rd Southeast Asian Gateway Evolution Meeting, Bogor, Indonesia, for symposium *Origins* of the Southeast Asian Rainforest,
- 2017, June. For symposium The Role of Boundaries in Plant Diversification, Botany 2017, Fort Worth.
- 2017, May. The Holden Arboretum, Scientist Lecture Series.
- 2016, June. Museo Egidio Feruglio, Trelew, Argentina.
- 2016, January. Steinmann Institut für Geologie, Mineralogie und Paläontologie, Universität Bonn.
- 2016, January. Max Planck Institute for Plant Breeding Research, Cologne, Germany.
- 2015, September. Arizona State University, School of Life Sciences.
- 2015, July. For *Botany 2015* (Edmonton) Colloquium, *Mesozoic and Cenozoic plant evolution and biotic change: A symposium in honor of Ruth Stockey.*
- 2015, May. Universiti Brunei Darussalam, Dept. of Petroleum Geoscience.
- 2015, February. Bucknell University, Dept. of Geology.
- 2015, January, Penn State University, Dept. of Geography.
- 2014, November, Plenary Lecture for *Plants 2014, International Conference on Advances in Plant Sciences*, Kuching, Malaysia.
- 2014, October, Penn State University, Dept. of Biology.
- 2014, August. Herbarium Bogoriense, West Java, Indonesia.
- 2014, May, Polar Center, Penn State University.
- 2014, March, 59th Ermine Cowles Case Memorial Lecture, University of Michigan, Museum of Paleontology.
- 2014, February, 10th North American Paleontological Conference, Gainesville, for session: *The Cretaceous-Paleogene Gondwanan Expressway*.
- 2014, January, University of Chicago, Department of Geophysical Sciences.
- 2013, February, Michigan State University, Department of Geological Sciences.
- 2012, November, University of Illinois at Urbana-Champaign, Program in Ecology, Evolution, and Conservation Biology.
- 2012, November, Pittsburgh Geological Society.
- 2012, October, Swarthmore College, Department of Biology, The Challenges of Climate Change series.
- 2012, February, University of Wisconsin-Madison, Department of Geoscience.
- 2011, November, Swarthmore College, Department of Mathematics and Statistics.
- 2011, October, University of North Carolina, Wilmington, for National Fossil Day.
- 2011, October, Pennsylvania State University, School of Forest Resources.
- 2011, September, Packard Fellows 23rd Annual Meeting, Monterey.
- 2011, July, International Botanical Congress, Melbourne, Australia, for Session: *Cenozoic Paleofloras of the Southern Hemisphere: Analyzing Ancient Floras Using Modern Techniques.*
- 2011, May, University of Buenos Aires, Argentina: Instituto de Geociencias Básicas, Aplicadas y Ambientales de Buenos Aires, Departamento de Ciencias Geológicas, y la Asociación Argentina de Sedimentología.
- 2011, April, University of California Riverside, Department of Earth Sciences.
- 2011, April, NAS / Humboldt Foundation 17th Annual German-American Kavli Frontiers of Science symposium, Irvine, CA, for Session: *Climate Change and Biodiversity: Paradise Lost or Found?* Online at http://www.nasonline.org/programs/kavli-frontiers-of-science/multimedia-gallery/peter-wilf.html.
- 2011, February, University of Indiana, Bloomington, Department of Geological Sciences.
- 2011, January, University of Washington, Department of Biology.
- 2010, December, Lafayette College, Department of Geology & Environmental Geosciences.
- 2010, November, University of Illinois at Chicago, Department of Earth and Environmental Sciences.
- 2010, October, University of North Carolina, Distinguished Seminar in Ecology and Evolutionary Biology, Department of Biology.
- 2010, September, Yale University, Department of Geology and Geophysics.
- 2010, July, Genes to Geosciences Outlook, Macquarie University, Australia.
- 2010, March. University of Kansas, Charles D. Michener Lecture, Department of Ecology and Evolutionary Biology and Department of Geology.

- 2010, February, VI Southern Connection Congress, Bariloche, Argentina.
- 2009, October. Penn State University, Earth Talks series.
- 2009, January. Penn State University, Department of Biology.
- 2008, November. Keynote speaker, XII Simpósio Brasileiro de Paleobotânica e Palinologia, Florianópolis, Santa Catarina, Brazil.
- 2008, October. Drexel University, Department of Bioscience and Biotechnology.
- 2008, October. For Paleontological Society Centennial Short Course, *From Evolution to Geobiology:* Research Questions Driving Paleontology at the Start of a New Century. In conjunction with the Centennial Meeting of the Paleontological Society, at GSA, Houston.
- 2008, February. Wesleyan University, Department of Earth and Environmental Sciences.
- 2007, September. Penn State University, Ecology Program.
- 2007, April. University of California, Santa Cruz, Department of Earth Sciences (two talks).
- 2007, April. University of California, Berkeley, Department of Integrative Biology.
- 2007, April. Stanford University, Department of Geological & Environmental Sciences.
- 2007, March. University of New Mexico, Department of Biology (two talks).
- 2006, November. Museo Paleontológico Egidio Feruglio, Trelew, Argentina.
- 2006, October. Harvard University, Earth History and Paleobiology Seminar Series.
- 2006, September. Packard Fellows 18th Annual Meeting, Monterey.
- 2006, August. Smithsonian Tropical Research Institute, Republic of Panama (2 talks).
- 2006, June. Second International Paleontological Congress, Beijing. For Special Session, *Geobiodiversity: Taxa, Morphology, and Ecology.*
- 2006, January. Yale University, Department of Geology and Geophysics.
- 2004, February. Penn State University, Department of Entomology.
- 2003, June. National Museum of La Plata, Argentina.
- 2003, September. Syracuse University, Department of Earth Sciences.
- 2003, February. For AAAS Annual Meeting symposium, Lessons from disturbed land ecosystems in the fossil record, Denver.
- 2003, February. University of Pennsylvania, Department of Earth and Environmental Science.
- 2002, November. Paleontological Association of Argentina, Buenos Aires.
- 2002, November. For *Insect extinction: historical and ecological patterns*, symposium for Entomological Society of America Annual Meeting, Fort Lauderdale.
- 2002, July. Workshop on Cretaceous climate and ocean dynamics, Florissant, Colorado, sponsored by JOI/USSP.
- 2001, April. Department of Geosciences, Pennsylvania State University.
- 2001, March. Virginia Polytechnic Institute, Department of Geological Sciences,.
- 2001. January. University of Michigan. Department of Biology.
- 2000, December. Smithsonian Institution, Department of Paleobiology, National Museum of Natural History.
- 2000, September. Yale University, *Topics in Global Change* seminar series, Department of Geology and Geophysics.
- 2000, September. Carnegie Museum of Natural History.
- 2000, May. University of Balochistan and Geological Survey of Pakistan, Quetta, Pakistan.
- 1999, October. Pardee Keynote Symposium, *Globally warm climates of the early Cenozoic: Evidence, causes and biotic consequences*, Geological Society of America Annual Meeting, Denver.
- 1999, October. University of Michigan, Turner Lecture, Department of Geological Sciences.
- 1999, October. Field Museum of Natural History, Department of Geology.
- 1999. January, Florida Museum of Natural History, Department of Natural Sciences.
- 1998, December. Smithsonian Institution, Department of Paleobiology, National Museum of Natural History.
- 1998, October. University of Chicago, Department of Geophysical Sciences.
- 1997, October. George Washington University, Department of Geology.
- 1997, September. Field Museum of Natural History, Department of Geology.
- 1996, April. Geological Society of America Penrose Conference, *Paleocene-Eocene boundary events in time and space*, Albuquerque.

PUBLICATIONS

key: *Undergraduate; †Graduate Student; †Postdoc; *Visiting Scholar at time principal work was done, at Penn State or lab of close collaborator.

Peer-reviewed

- (109) Andruchow-Colombo[‡] A, G Rossetto-Harris[†], TJ Brodribb, MA Gandolfo, P Wilf. 2023. A new fossil *Acmopyle* with accessory transfusion tissue and potential reproductive buds: direct evidence for ever-wet rainforests in Eocene Patagonia. *American Journal of Botany*, in press.
- (108) Donovan[†] MP, P Wilf, A Iglesias, NR Cúneo, CC Labandeira. 2023. Insect herbivore and fungal communities on *Agathis* (Araucariaceae) from the latest Cretaceous to Recent. In press, *PhytoKeys*.
- (107) Deanna R, C Martínez, S Manchester, P Wilf, A Campos, S Knapp, FE Chiarini, GE Barboza, G Bernardello, H Sauquet, E Dean, A Orejuela, SD Smith. 2023. Fossil berries reveal global radiation of the nightshade family by the early Cenozoic. New Phytologist, https://doi.org/10.1111/nph.18904.
- (106) Wilf P, A Iglesias, MA Gandolfo. 2023. The first Gondwanan Euphorbiaceae fossils reset the biogeographic history of the *Macaranga-Mallotus* clade. *American Journal of Botany*, e16169.
- (105) Rossetto-Harris[†] G, E Stiles[†], P Wilf, MP Donovan, X Zou*. 2022. Rapid character scoring and tabulation of large leaf-image libraries using Adobe Bridge. *Applications in Plant Sciences* 10, e11500.
- (104) Matel* TP, MA Gandolfo, EJ Hermsen, P Wilf. 2022. Cunoniaceae infructescences from the early Eocene Laguna del Hunco flora, Patagonia, Argentina. *American Journal of Botany* 109, 986–1003.
- (103) Spagnuolo* EJ, P Wilf, T Serre. 2022. Decoding family-level features for modern and fossil leaves from computer-vision heat maps. *American Journal of Botany* 109, 768–788.
- (102) Kooyman RM, SJ Ivory, AJ Benfield[†], P Wilf. 2022. Gondwanan survivor lineages and the high-risk biogeography of Anthropocene Southeast Asia. *Journal of Systematics and Evolution* 60, 715–727. (invited cover article)
- (101) Wilf P, X Zou*, MP Donovan[†], L Kocsis, A Briguglio, D Shaw, JWF Slik, JJ Lambiase. 2022. First fossil-leaf floras from Brunei Darussalam show dipterocarp dominance in Borneo by the Pliocene. *PeerJ* 10, e12949. doi:10.7717/peerj.12949.
- (100) Benton MJ, P Wilf, H. Sauquet. 2022. The Angiosperm Terrestrial Revolution and the origins of modern biodiversity. *New Phytologist* 233, 2017–2035 (Tansley Review).
- (99) Wilf P, SL Wing, HW Meyer, J Rose[†], R Saha[†], T Serre, NR Cúneo, MP Donovan, DM Erwin, MA Gandolfo, E González-Akre, F Herrera, S Hu, A Iglesias, KR Johnson, TS Karim, X Zou^{*}. 2021. An image dataset of cleared, x-rayed, and fossil leaves vetted to plant family for human and machine learning. *PhytoKeys* 187, 93–128.
- (98) Andruchow-Colombo[†] A, P Wilf, IH Escapa. 2021. Reaffirming the phyllocladoid affinities of *Huncocladus laubenfelsii* (Podocarpaceae) from the early Eocene of Patagonia a comment on Dörken et al. (2021). *Botanical Journal of the Linnean Society* 197, 554–557.
- (97) Brea M, A Iglesias, P Wilf, E Moya, MA Gandolfo. 2021. First South American record of *Winteroxylon*, Eocene of Laguna del Hunco (Chubut, Patagonia, Argentina): new link to Australasia and Malesia. *International Journal of Plant Sciences* 182, 185–197.
- (96) Iglesias A, P Wilf, E Stiles[†], R Wilf. 2021. Patagonia's diverse but homogeneous early Paleocene forests: angiosperm leaves from the Danian Salamanca and Peñas Coloradas formations, San Jorge Basin, Chubut, Argentina. *Palaeontologia Electronica* 24, art. 2a, doi:10.26879/1124.
- (95) DeGrange FJ, D Pol, P Puerta, P Wilf. 2021. Unexpected larger distribution of Paleogene stemrollers (Aves, Coracii): new evidence from the Eocene of Patagonia, Argentina. *Scientific Reports* 11, art. 1363 doi: 10.1038/s41598-020-80479-8.

- (94) Gosses[†] J, A Carroll, B Bruck, B Singer, B Jicha, E Aragón, A Walters, P Wilf. 2021. Facies interpretation and geochronology of diverse Eocene floras and faunas, northwest Chubut Province, Patagonia, Argentina. *Geological Society of America Bulletin* 133, p. 740–752.
- (93) Donovan[†] MP, P Wilf, A Iglesias, NR Cúneo, CC Labandeira. 2020. Persistent biotic interactions of a Gondwanan conifer from Cretaceous Patagonia to modern Malesia. *Communications Biology* 3, 708 doi:10.1038/s42003-020-01428-9.
- (92) Stiles[†] E, P Wilf, A Iglesias, MA Gandolfo, NR Cúneo. 2020. Cretaceous-Paleogene plant extinction and recovery in Patagonia. *Paleobiology* 46, 445–469 (Featured Article).
- (91) Deanna R, P Wilf, MA Gandolfo. 2020. New physaloid fruit-fossil species from early Eocene South America. *American Journal of Botany* 107, 1749–1762.
- (90) Pujana RR, P Wilf, MA Gandolfo. 2020. Conifer wood assemblage dominated by Podocarpaceae, early Eocene of Laguna del Hunco, central Argentinean Patagonia. *PhytoKeys* 156, 81–102.
- (89) Rossetto-Harris[†] G, P Wilf, IH Escapa, A Andruchow-Colombo[†]. 2020. Eocene *Araucaria* Sect. *Eutacta* from Patagonia and floristic turnover during the initial isolation of South America. *American Journal of Botany* 107, 806–832.
- (88) Barreda VD, MC Zamaloa, MA Gandolfo, C Jaramillo, P Wilf. 2020. Early Eocene spore and pollen assemblages from the Laguna del Hunco fossil-lake beds, Patagonia, Argentina. *International Journal of Plant Sciences* 181, 594–615.
- (87) Wilf P. 2020. Eocene "*Chusquea*" fossil from Patagonia is a conifer, not a bamboo. *PhytoKeys* 139: 77–89.
- (86) Bippus[†] AC, IH Escapa, P Wilf, AMF Tomescu. 2019. Fossil fern rhizomes as a model system for biotic interactions across geologic time: Evidence from Patagonia. *PeerJ* 7, e8244.
- (85) Wilf P, KC Nixon, MA Gandolfo, NR Cúneo. 2019. Eocene Fagaceae from Patagonia and Gondwanan legacy in Asian rainforests. *Science* 364, eaaw5139 (Research Article).
- (84) Kooyman RM, RJ Morley, DM. Crayn, EM. Joyce, M Rossetto, JWF Slik, JS Strijk, T Su, J-YS Yap, P Wilf. 2019. Origins and assembly of Malesian rainforests. *Annual Review of Ecology, Evolution and Systematics*, v. 50, p. 119–143.
- (83) Andruchow-Colombo[†] A, P Wilf, IH Escapa. 2019. A South American fossil relative of *Phyllocladus*: *Huncocladus laubenfelsii* gen. et sp. nov. (Podocarpaceae), from the early Eocene of Laguna del Hunco, Patagonia, Argentina. *Australian Systematic Botany*, v. 32, p. 290–309.
- (82) Andruchow-Colombo[†] A, IH Escapa, RJ Carpenter, RS Hill, A Iglesias, A Abarzua, P Wilf. 2019. Oldest record of scale-leaved Podocarpaceae, early Paleocene of Patagonia, Argentina. *Alcheringa*, v. 43, p. 127–145.
- (81) Jud[‡] NA, A Iglesias, P Wilf, MA Gandolfo. 2018. Fossil moonseeds from the Paleogene of West Gondwana (Patagonia, Argentina). *American Journal of Botany*, v. 105, p. 927–942.
- (80) Donovan[†] MP, A Iglesias, P Wilf, CC Labandeira, NR Cúneo. 2018. Diverse plant-insect associations from the latest Cretaceous and early Paleocene of Patagonia, Argentina. *Ameghiniana*, v. 55, p. 303–338.
- (79) Escapa IH, A Iglesias, P Wilf, SA Catalano, MA Caraballo-Ortiz, NR Cúneo. 2018. *Agathis* trees of Patagonia's Cretaceous-Paleogene death landscapes and their evolutionary significance. *American Journal of Botany*, v. 108, p. 1345–1368.
- (78) Carpenter RJ, A Iglesias, P Wilf. 2018. Early Cenozoic vegetation in Patagonia: new insights from organically preserved plant fossils (Ligorio Márquez Formation, Argentina). *International Journal of Plant Sciences*, v. 179, p. 115–135.
- (77) Wilf P, MP Donovan[†], NR Cúneo, MA Gandolfo. 2017. The fossil flip-leaves (*Retrophyllum*, Podocarpaceae) of southern South America. *American Journal of Botany*, v. 104, p. 1344–1369.

- (76) Jud[‡] NA, MA Gandolfo, A Iglesias, P Wilf. 2018. Fossil flowers from the early Palaeocene of Patagonia, Argentina with affinity to Schizomerieae (Cunoniaceae). *Annals of Botany*, v. 121, p. 431–442.
- (75) Wright I, Ning D, Maire V, Prentice IC, Westoby M, Diaz S, Gallagher RV, Jacobs BF, Kooyman R, Law EA, Leishman MR, Niinemets Ü, Reich PB, Sack L, Villar R, Wang H, Wilf P. 2017. Global climatic drivers of leaf size. *Science*, v. 357, p. 917–921.
- (74) Wu° J-Y, Wilf P, Ding S-T, An P-C, Dai J. 2017. Late Miocene *Cyclocarya* (Juglandaceae) from southwest China and its biogeographic implications. *International Journal of Plant Sciences*, v. 178, p. 580–591.
- (73) Jud[‡] NA, MA Gandolfo, A Iglesias, P Wilf. 2017. Flowering after disaster: early Danian buckthorn (Rhamnaceae) flowers and leaves from Patagonia. *PLoS One*, 12: e0176164.
- (72) Krause JM, WC Clyde, M Ibañez-Mejia, MD Schmitz, T Barnum, ES Bellosi, P Wilf. 2017. New age constraints for early Paleogene strata of central Patagonia, Argentina: implications for the timing of South American land mammal ages. *GSA Bulletin*, v. 129, p. 886–903.
- (71) Wilf P, MR Carvalho[†], MA Gandolfo, NR Cúneo. 2017. Eocene lantern fruits from Gondwanan Patagonia and the early origins of Solanaceae. *Science*, v. 355, p. 71–75.
- (70) Donovan[†] MP, A Iglesias, P Wilf, CC Labandeira, NR Cúneo. 2017. Rapid recovery of Patagonian plant-insect associations after the Cretaceous-Paleogene mass extinction. *Nature Ecology & Evolution*, v. 1, art. 12, doi:10.1038/s41559-016-0012.
- (69) Wilf P, DW Stevenson, NR Cúneo. 2016. The last Patagonian cycad, *Austrozamia stockeyi* gen. et sp. nov., early Eocene of Laguna del Hunco, Chubut, Argentina. *Botany*, v. 94, p. 817–829 (invited for Special Issue "*Mesozoic and Cenozoic Plant Evolution and Biotic Change*, a collection of research inspired by, and honouring, Ruth A. Stockey."
- (68) Wilf, P, S Zhang, S Chikkerur, SA Little[‡], SL Wing, T Serre. 2016. Computer vision cracks the leaf code. *PNAS*, v. 113, p. 3305–3310.
- (67) Elliott[†] SJ, CL Grettenberger[†], MP Donovan[†], P Wilf, RC Walter, DJ Merritts. 2016. Riparian and valley-margin hardwood species of pre-colonial Piedmont forests: A preliminary study of subfossil leaves from White Clay Creek, southeastern Pennsylvania, USA. *Palaeontologia Electronica* 19.1.2A: 1–26.
- (66) Wilf P, Escapa IH. 2016. Molecular dates require geologic testing. Reply to Wang & Mao (2016). *New Phytologist*, v. 209, p. 1359–1362.
- (65) Su°, T, P Wilf, Y Huang, S Zhang, Z Zhou. 2015. Peaches preceded humans: fossil evidence from SW China. *Nature Scientific Reports* 5, art. 16794.
- (64) Wilf P, Labandeira CC. 2015. The fossil record of mutualisms. Pp. 39–41 in *Mutualism*, ed. JL Bronstein, Oxford University Press. Viewable on Google Books: https://goo.gl/hMNeCQ.
- (63) Merkhofer[†] L, P Wilf, MT Haas*, RM Kooyman, L Sack, C. Scoffoni, NR Cúneo. 2015. Resolving Australian analogs for an Eocene Patagonian paleorainforest using leaf size and floristics. *American Journal of Botany*, v. 102, p. 1160–1173.
- (62) Comer[†] EE, RL Slingerland, JM Krause, A Iglesias, WC Clyde, MS Raigemborn, P Wilf. 2015. Sedimentary facies and depositional environments of diverse early Paleocene floras, north-central San Jorge Basin, Patagonia, Argentina. *Palaios*, v. 30, p. 553–573 (cover article). [corresponding author]
- (61) Villar de Seoane L, NR Cúneo, IH Escapa, P Wilf, MA Gandolfo. 2015. *Ginkgoites patagonica* (Berry) comb. nov. from the Eocene of Patagonia, last ginkgoalean record in South America. *International Journal of Plant Sciences*, v. 176, p. 346–363, with Erratum p. 364.

- (60) Wilf P, Escapa IH. 2015. Green Web or megabiased clock? Plant fossils from Gondwanan Patagonia speak on evolutionary radiations. New Phytologist, v. 207, p. 283–290 (invited Tansley Insight for Special Issue: Evolutionary Plant Radiations).
- (59) Kooyman RM, Wilf P, Barreda, VD, Carpenter RJ, Jordan GJ, Sniderman JMK, Allen A, Brodribb TJ, Crayn D, Feild TS, Laffan SW, Lusk CH, Rossetto M, Weston PH. 2014. Paleo-Antarctic rainforest into the modern Old World tropics: the rich past and threatened future of the 'southern wet forest survivors.' *American Journal of Botany*, v. 101, p. 2121–2135.
- (58) Su° T, P Wilf, H Xu, Z-K Zhou. 2014. Miocene leaves of *Elaeagnus* (Elaeagnaceae) from the Qinghai-Tibet Plateau, its modern center of diversity and endemism. *American Journal of Botany*, v. 101, p. 1350–1361.
- (57) Carpenter RJ, P Wilf, JG Conran, NR Cúneo. 2014. A Paleogene trans-Antarctic distribution for *Ripogonum* (Ripogonaceae: Liliales)? *Palaeontologia Electronica*, v. 17, article 17.3.39A, 9p.
- (56) Donovan[†] M, P Wilf, CC Labandeira, KR Johnson, DJ Peppe. 2014 Novel insect leaf-mining after the end-Cretaceous extinction and the demise of Cretaceous leaf miners, Great Plains, USA. *PloS One*, v. 9: e103542.
- (55) Little[‡] SA, WA Green, SL Wing, P Wilf. 2014. Reinvestigation of leaf rank, an underappreciated component of Leo Hickey's legacy. *Bulletin of the Peabody Museum of Natural History*, v. 55, p. 79–87.
- (54) Carvalho[†] M.R., P. Wilf, H. Barrios, E.D. Currano, D.M. Windsor, C.A. Jaramillo, C.C. Labandeira. 2014. Insect leaf-chewing damage tracks herbivore richness in modern and ancient forests. *PloS One*, v. 9: e94950, 9 p.
- (53) Wilf P, IH Escapa, NR Cúneo, RM Kooyman, KR Johnson, A Iglesias. 2014. First South American *Agathis* (Araucariaceae), Eocene of Patagonia. *American Journal of Botany*, v. 101, p. 156–179.
- (52) Clyde WC, P Wilf, A Iglesias, RL Slingerland, T Barnum, PK Bijl, TJ Bralower, H Brinkhuis, EE Comer[†], BT Huber, M Ibañez-Mejia, BR Jicha, JM Krause, JD Schueth, BS Singer, MS Raigemborn, MD Schmitz, A Sluijs, MC Zamaloa. 2014. New age constraints for the Salamanca Formation and lower Río Chico Group in the western San Jorge Basin, Patagonia, Argentina: implications for K/Pg extinction recovery and land mammal age correlations. *Geological Society of America Bulletin*, v. 126, p. 289–306.
- (51) Cornwell WK, et al. (26 authors). 2014. Functional distinctiveness of major plant lineages. *Journal of Ecology*, v. 102, p. 345–356.
- (50) Elliott[†] SJ, P Wilf, RC Walter, DJ Merritts. 2013. Subfossil leaves reveal a new upland floral component of the pre-European Piedmont landscape, Lancaster County, Pennsylvania. *PloS One*, v. 8, e79317, 26 p.
- (49) Knight[†] CL, P Wilf. 2013. Rare leaf fossils of Monimiaceae and Atherospermataceae (Laurales) from Eocene Patagonian rainforests and their biogeographic significance. *Palaeontologia Electronica*, v. 16, article 16.3.26A, 39 p.
- (48) Macphail M, RJ Carpenter, A Iglesias, P Wilf. 2013. First fossil evidence for Wollemi Pine-type pollen (*Dilwynites*: Araucariaceae) in South America. *PloS One*, 8: e69281, 8 p.
- (47) Carvalho[†] MR, P Wilf, MA Gandolfo, EJ Hermsen[‡], KR Johnson, NR Cúneo. 2013. First record of *Todea* (Osmundaceae) in South America, from the early Eocene paleorainforests of Laguna del Hunco (Patagonia, Argentina). *American Journal of Botany*, v. 100, p. 1831–1848.
- (46) Wilf P, NR Cúneo, IH Escapa, D Pol, MO Woodburne. 2013. Splendid and seldom isolated: the paleobiogeography of Patagonia. *Annual Review of Earth and Planetary Sciences*, v. 41, p. 561–603.
- (45) Barreda VD, NR Cúneo, P Wilf, ED Currano, RA Scasso, H Brinkhuis. 2012. Cretaceous/Paleogene floral turnover in Patagonia: drop in diversity, low extinction, and a *Classopollis* spike. *PLoS One*, v. 7, e52455 (8 p.).

- (44) Wilf P. 2012. Rainforest conifers of Eocene Patagonia: attached cones and foliage of the extant southeast-Asian and Australasian genus *Dacrycarpus* (Podocarpaceae). *American Journal of Botany*, v. 99, p. 562–584 (cover article).
- (43) Sauquet H, SYW Ho, MA Gandolfo, GJ Jordan, P Wilf, DJ Cantrill, M Bayly, L Bromham, G Brown, RJ Carpenter, DM Lee, D Murphy, JMK Sniderman, F Udovicic. 2012. Testing the impact of calibration on molecular divergence times using a fossil-rich group: the case of *Nothofagus* (Fagales). *Systematic Biology*, v. 61, p. 289–313 (cover article).
- (42) Gandolfo, M.A., E.J. Hermsen[‡], M.C. Zamaloa, K.C. Nixon, C.C. González[‡], P. Wilf, N.R. Cúneo, K.R. Johnson. 2011. Oldest known *Eucalyptus* macrofossils are from South America. *PloS One*, v. 6, e21084 (9 p.).
- (41) Little[‡], S.A., S.W. Kembel, P. Wilf. 2010. Paleotemperature proxies from leaf fossils reinterpreted in light of evolutionary history. PloS One, v. 5, e15161 (8 p.).
- (40) Winkler, I.S., C.C. Labandeira, T. Wappler, P. Wilf. 2010. Distinguishing Agromyzidae (Diptera) leaf mines in the fossil record: new taxa from the Paleogene of North America and Germany and implications for host use evolution and an early origin for the Agromyzidae. Journal of Paleontology, v. 84, p. 935–954.
- (39) Currano[†], E.D., C.C. Labandeira, P. Wilf. 2010. Fossil insect folivory tracks paleotemperature for six million years. *Ecological Monographs*, v. 80, p. 547–567 (cover article).
- (38) Peppe, D.J., D.L. Royer, P. Wilf, E.A. Kowalski. 2010. Quantification of large uncertainties in fossil leaf paleoaltimetry. *Tectonics*, v. 29, TC3015, doi:10.1029/2009TC002549 (14 p.).
- (37) Wilf, P., B.S. Singer, M.C. Zamaloa, K.R. Johnson, N.R. Cúneo. 2010. Early Eocene ⁴⁰Ar/³⁹Ar age for the Pampa de Jones plant, frog, and insect biota (Huitrera Formation, Neuquén Province, Patagonia, Argentina). *Ameghiniana*, v. 47, p. 207–216.
- (36) Wilf, P., S.A. Little[‡], A. Iglesias[‡], M.C. Zamaloa, M.A. Gandolfo, N.R. Cúneo, K.R. Johnson. 2009. *Papuacedrus* (Cupressaceae) in Eocene Patagonia, a new fossil link to Australasian rainforests. *American Journal of Botany*, v. 96, p. 2031–2047 (cover article).
- (35) Wing, S.L., F. Herrera, C.A. Jaramillo, C. Gómez-N., P. Wilf, C.C. Labandeira. 2009. Late Paleocene fossils from the Cerrejón Formation, Colombia, are the earliest record of Neotropical rainforest. *PNAS*, v. 106, p. 18627–18632.
- (34) Wappler, T., E.D. Currano, P. Wilf, J. Rust, C.C. Labandeira. 2009. No post-Cretaceous ecosystem depression in European forests? Rich insect-feeding damage on diverse middle Palaeocene plants at Menat, France. *Proceedings of the Royal Society B*, v. 276, p. 4271–4277.
- (33) Sarzetti[†], L.C., C.C. Labandeira, J. Muzón, P. Wilf, N.R. Cúneo, K.R. Johnson, J.F. Genise. 2009. Odonatan endophytic oviposition from the Eocene of Patagonia: the ichnogenus *Paleoovoidus* and implications for behavioral stasis. *Journal of Paleontology*, v. 83, p. 431–447.
- (32) Ellis, B., D.C. Daly, L.J. Hickey, K.R. Johnson, J.D. Mitchell, P. Wilf, S.L. Wing. 2009. *Manual of Leaf Architecture*. Cornell University Press, 190 p.
- (31) Royer, D.L., R.M. Kooyman, S.A. Little[‡], P. Wilf. 2009. Ecology of leaf teeth: A multi-site analysis from Australian subtropical rainforest. *American Journal of Botany*, v. 96, p. 738–750.
- (30) Crisp, M., M. Arroyo, L. Cook, M.A. Gandolfo, G. Jordan, M. McGlone, P. Weston, M. Westoby, P. Wilf, H.P. Linder. 2009. Phylogenetic biome conservatism on a global scale. *Nature*, v. 458, p. 754–756.
- (29) Wilf, P., 2008. Fossil angiosperm leaves: paleobotany's difficult children prove themselves. In *From Evolution to Geobiology: Research Questions Driving Paleontology at the Start of a New Century, Paleontological Society Short Course, October 4, 2008*, P.H. Kelley and R.K. Bambach, eds. Paleontological Society Papers, v. 14, p. 319–333.

- (28) Royer, D.L., J.C. McElwain, J.M. Adams, P. Wilf. 2008. Sensitivity of leaf size and shape to climate within *Acer rubrum* L. and *Quercus kellogaji* Newberry. *New Phytologist*, v. 179, p 808–817.
- (27) Wilf, P. 2008. Insect-damaged fossil leaves record food web response to ancient climate change and extinction. Tansley Review (invited), *New Phytologist*, v. 178, p. 486–502.
- (26) Currano[†], E.D., P. Wilf, S.L. Wing, C.C. Labandeira, E.C. Lovelock, D.L. Royer, 2008. Sharply increased insect herbivory during the Paleocene-Eocene Thermal Maximum. *PNAS*, v. 105, p. 1960–1964.
- (25) Danehy*, D.R., P. Wilf, S.A. Little‡. 2007. Early Eocene macroflora from the Red Hot Truck Stop locality (Meridian, Mississippi, USA). *Palaeontologia Electronica*, v. 10, article 17A, 31 p.
- (24) Iglesias[†], A., P. Wilf, K.R. Johnson, A.B. Zamuner, N.R. Cúneo, S.D. Matheos, B.S. Singer, 2007. A Paleocene lowland macroflora from Patagonia reveals significantly greater richness than North American analogs. *Geology*, v. 35, p. 947–950.
- (23) Royer[‡], D.L., L. Sack, P. Wilf, C.H. Lusk, G.J. Jordan, Ü. Niinemets, I.J. Wright, M. Westoby, B. Cariglino[†], P.D. Coley, A.D. Cutter, K.R. Johnson, C.C. Labandeira, A.T. Moles, M.B. Palmer, F. Valladares, 2007. Fossil leaf economics quantified: calibration, Eocene case study, and implications *Paleobiology*, v. 33, p. 574–589.
- (22) González[†], C.C., M.A. Gandolfo, M.C. Zamaloa, N.R. Cúneo, P. Wilf, K.R. Johnson, 2007. Revision of the Proteaceae macrofossil record from Patagonia, Argentina. *Botanical Review*, v. 73, p. 235–266.
- (21) Wilf, P., C.C. Labandeira, K.R. Johnson, B. Ellis, 2006. Decoupled plant and insect diversity after the end-Cretaceous extinction. *Science*, v. 313, p. 1112–1115.
- (20) Zamaloa, M.C., M.A. Gandolfo, C.C. González[†], E.J. Romero, N.R. Cúneo, P. Wilf, 2006. Casuarinaceae from the Eocene of Patagonia, Argentina. *International Journal of Plant Sciences*, v. 167, p. 1279–1289.
- (19) Secord, R., P.D. Gingerich, M.E. Smith, W.C. Clyde, P. Wilf, B.S. Singer, 2006. Geochronology and mammalian biostratigraphy of middle and upper Paleocene continental strata, Bighorn Basin, Wyoming. *American Journal of Science*, v. 306, p. 211–245.
- (18) Royer[‡], D.L., P. Wilf, 2006. Why do toothed leaves correlate with cold climates? Experimental evidence supports a classic paleotemperature proxy. *International Journal of Plant Sciences*, v. 167, p. 11–18.
- (17) Wilf, P., C.C. Labandeira, K.R. Johnson, N.R. Cúneo, 2005. Richness of plant-insect associations in Eocene Patagonia: a legacy for South American biodiversity. *PNAS*, v. 102, p. 8944–8948.
- (16) Wilf, P., K.R. Johnson, N.R. Cúneo, M.E. Smith, B.S. Singer, and M.A. Gandolfo, 2005, Eocene plant diversity at Laguna del Hunco and Río Pichileufú, Patagonia, Argentina. *American Naturalist*, v. 165, 634–650.
- (15) Royer[‡], D.L., P. Wilf, D.A. Janesko*, E.A. Kowalski, and D.L. Dilcher, 2005, Correlations of climate and plant ecology to leaf size and shape: potential proxies for the fossil record. *American Journal of Botany*, v. 92, p. 1141–1151.
- (14) Wilf, P., and K.R. Johnson, 2004, Land plant extinction at the end of the Cretaceous: a quantitative analysis of the North Dakota megafloral record. *Paleobiology*, v. 30, p. 347–368.
- (13) Greenwood, D.R., P. Wilf, S.L. Wing, and D.C. Christophel, 2004, Paleotemperature estimation using leaf-margin analysis: is Australia different? *Palaios*, v. 19, p. 129–142.
- (12) Wilf, P., N.R. Cúneo, K.R. Johnson, J.F. Hicks, S.L. Wing, J.D. Obradovich, 2003, High plant diversity in Eocene South America: evidence from Patagonia. *Science*, v. 300, p. 122–125.
- (11) Huff*, P.M., P. Wilf, and E.J. Azumah*, 2003. Digital future for paleoclimate estimation from fossil leaves? Preliminary results. *Palaios*, v. 18, p. 266–274.

- (10) Wilf, P., K.R. Johnson, and B.T. Huber, 2003. Correlated terrestrial and marine evidence for global climate changes before mass extinction at the Cretaceous-Paleogene boundary. *PNAS*, v. 100, p. 599–604.
- (9) Labandeira, C.C., K.R. Johnson, and P. Wilf. 2002. Impact of the terminal Cretaceous event on plant-insect associations. *PNAS*, v. 99, 2061–2066.
- (8) Wilf, P., C.C. Labandeira, K.R. Johnson, P.D. Coley, and A.D. Cutter. 2001. Insect herbivory, plant defense, and early Cenozoic climate change. *PNAS*, v. 98, 6221–6226.
- (7) Burnham, R. J., N. C. A. Pitman, K. R. Johnson, and P. Wilf. 2001. Habitat-related error in estimating temperatures from leaf margins in a humid tropical forest. *American Journal of Botany*, v. 88, 1096–1102.
- (6) Wilf, P., C.C. Labandeira, W.J. Kress, C.L. Staines, D.M. Windsor, A.L. Allen, and K.R. Johnson. 2000. Timing the radiations of leaf-beetles: Hispines on gingers from latest Cretaceous to Recent. Science, v. 289, p. 291–294 (cover article).
- (5) Wilf, P. 2000. Late Paleocene-early Eocene climate changes in southwestern Wyoming: Paleobotanical analysis. *Geological Society of America Bulletin*, v. 112, p. 292–307.
- (4) Wilf, P., and C.C. Labandeira. 1999. Response of plant-insect associations to Paleocene-Eocene warming. *Science*, v. 284, p. 2153–2156.
- (3) Wilf, P., K.C. Beard, K.S. Davies-Vollum, and J.W. Norejko. 1998. Portrait of a late Paleocene (early Clarkforkian) terrestrial ecosystem: Big Multi Quarry and associated strata, Washakie Basin, southwestern Wyoming. *Palaios*, v. 13, p. 514–532.
- (2) Wilf, P., S.L. Wing, D.R. Greenwood, and C.L. Greenwood. 1998. Using fossil leaves as paleoprecipitation indicators: An Eocene example. *Geology*, v. 26, p. 203–206.
- (1) Wilf, P. 1997. When are leaves good thermometers? A new case for Leaf Margin Analysis. *Paleobiology*, v. 23, p. 373–390.

Other publications

- (14) Oldield S, P Wilf. 2021. Ancient tree survivors. In *State of the World's Trees*, Botanic Gardens Conservation International, Richmond, UK, p. 11.
- (13) Kooyman RM, J Watson, P Wilf. 2020. Protect Australia's Gondwana rainforests. *Science* 367: 1083 (Letter).
- (12) Wilf P, 2019. Commentary on Wolfe 1978. Ch. 28 in *Foundations of Paleoecology*, SK Lyons, AK Behrensmeyer, PJ Wagner, eds., University of Chicago Press.
- (11) Wilf P, KC Nixon, MA Gandolfo, NR Cúneo. 2019. Response to Comment on "Eocene Fagaceae from Patagonia and Gondwanan legacy in Asian rainforests." *Science*, v. 366, eaaz2297.
- (10) Wilf, P., 2014, Commentary on K.J. Niklas, B.H. Tiffney, A.H. Knoll, 1983, Patterns in vascular land plant diversification, Nature 303:614-616, p. 36 in Foundations of Macroecology, F.A. Smith, J.L. Gittleman, J.H. Brown, eds., University of Chicago Press.
- (9) Barclay, R.S., P. Wilf, D.L. Dilcher, J.C. McElwain. 2012. The Cuticle Database Project, version 1.1, The Earth and Environmental Systems Institute of Pennsylvania State University, http://cuticledb.eesi.psu.edu.
- (8) Wilf, P., 2010. Citation for 2010 Donath Medal (Young Scientist Award) to Dana Royer, www.geosociety.org/awards/10speeches/donath.htm.
- (7) Bennington, J.B., et al. (32 authors). 2009. Critical issues of scale in paleoecology. *Palaios* (Spotlight), v. 24, p. 1-4.
- (6) Labandeira, C.C., Wilf, P., Johnson, K.R., and Marsh, F. 2007. Guide to Insect (and other) Damage Types on Compressed Plant Fossils. Version 3.0. Smithsonian Institution, Washington, D.C. 25 p.
- (5) Wilf, P., M.A. Gandolfo, K.R. Johnson, N.R. Cúneo. 2004. Field trip guide: Paleogene floras of Patagonia. For Post-Meeting Field Trip 4 (March 27–31, 2004), International Organization of Paleobotany, VIIth Quadrennial Conference, Bariloche, Argentina. 27 p.

- (4) Wilf, P., and C.C. Labandeira. 2000. Effects of Paleocene-Eocene warming on insect herbivory. *GFF*, v. 122. p. 178–179.
- (3) Wilf, P., S.L. Wing, D.R. Greenwood, and C.L. Greenwood. 1999. Using fossil leaves as paleoprecipitation indicators: An Eocene example: Reply. *Geology*, v. 27, p. 92.
- (2) Ash, A., B. Ellis, L.J. Hickey, K.R. Johnson, P. Wilf, and S.L. Wing. 1999. Manual of Leaf Architecture: Morphological description and categorization of dicotyledonous and net-veined monocotyledonous angiosperms. Smithsonian Institution, Washington, DC. 65 p.
- (1) Wilf, P. 1998. Using fossil plants to understand global change: Evidence for Paleocene-Eocene warming in the greater Green River Basin of southwestern Wyoming. Doctoral dissertation, University of Pennsylvania, Philadelphia, 384 p.

Recent abstracts (oral unless poster indicated)

key: *undergraduate author; †graduate student; ‡postdoc at time work was done, at PSU or close collaborator lab.

2023

- Andruchow-Colombo A, G Rossetto-Harris[†], TJ Brodribb, MA Gandolfo, P Wilf. 2023. A new species of *Acmopyle* (Podocarpaceae) with preserved accessory transfusion tissue from the early Eocene of Argentinean Patagonia. *Botany* 2023, *Boise*, *Idaho*.
- Rossetto-Harris[†] G, IH Escapa, A Iglesias, MG Passalia, P Wilf. 2023. The first Patagonian icehouse conifers: new fossil species of *Austrocedrus* (Cupressaseae) and *Araucaria* (Araucariaceae) from the earliest Oligocene of Argentina. *Botany 2023, Boise, Idaho.*
- Iglesias A, MG Passalia, P Picca, P Quiroga, P Wilf. 2023. First *Nothofagus* fossil cupules and nuts from South America, earliest Oligocene of northern Patagonia. *Botany 2023, Boise, Idaho.*
- Kooyman R, P Wilf. 2023. Origins and assembly of the Australian rainforests: protecting deep time World Heritage values in the contemporary world. *International Association for Vegetation Science 65th Annual Symposium, Coffs Harbour, NSW, Australia.* [Kooyman invited]
- Wang T-X, J Huang, J Liu, T Van Do, HB Nguyen, T Su, P Wilf. 2023. Fossil *Syzygium* leaves with in-situ cuticle from the Pliocene of central Vietnam. *Botany 2023, Boise, Idaho.*

2022

- Deanna R, C Martínez, S Manchester, A Campos, S Knapp, P Wilf, FE Chiarinib, GE Barboza, G Bernardello, H Sauquet, E Dean, A Orejuela, SD Smith. 2022. Fossil berries reveal the global radiation of an Andean-centered family in the Eocene. *Evolution 2022*, Cleveland.
- Giraldo[†], LA, P Wilf, MP Donovan, MA Gandolfo. 2022. Did insect herbivore assemblages track *Eucalyptus* across the globe for 52.2 million years? 11th European Palaeobotany and Palynology Conference, June 2022, Stockholm, Sweden.
- Rossetto-Harris[†] G, P Wilf. 2022. Floral turnover after the Early Eocene Climatic Optimum in northern Patagonia. *Geological Society of America Annual Meeting, Denver.* [poster]
- Iglesias I, MG Passalia, F Bechis, VD Litvak, JI Falco, G Rossetto-Harris[†], P Wilf, A Paulina-Carabajal. 2022. First early Oligocene plant macrofossils from northern Patagonia (Río Negro, Argentina). *XXI Congreso Geológico Argentino, Puerto Madryn, Chubut*, March 2022.
- Rodriguez[†] IF, T Fel[†], M Vaishnav, P Wilf, T Serre. 2022. Using artificial intelligence to identify fossil angiosperm leaves at family level. *Geological Society of America Annual Meeting, Denver*.
- Siegert[†] C, M.A. Gandolfo, P Wilf. 2022. A new fossil Malvaceae fruit from the Early Eocene of Patagonia, Argentina. Botany 2022, Anchorage.
- Spagnuolo[†] E, P Wilf, J-P Zonneveld, Aswan, JI Bloch, RL Ciochon, Y Rizal, Y Zaim. 2022. Giant seeds of an extant Australasian legume lineage discovered in Eocene Borneo (South Kalimantan, Indonesia). *Geological Society of America Annual Meeting, Denver*. [poster]
- Wang[†], T-X, J Huang, J Liu, T Van Do, HB Nguyen, T Su, P Wilf. 2022. Fossil leaves of figs (*Ficus* L., Moraceae) with in-situ cuticles from the Pliocene of central Vietnam. *Botany 2022, Anchorage*.
- Wang[†], T-X, J Huang, J Liu, S-T Zhang, T Van Do, HB Nguyen, T Su, P Wilf. 2022. New Pliocene flora from central Vietnam an ancient analog of mainland Southeast Asia's tropical seasonal forests. *Geological Society of America Annual Meeting, Denver.* [poster]

- Wilf P, MR Carvalho, E Stiles. 2022. Was the end-Cretaceous plant extinction geographically heterogeneous? 11th European Palaeobotany and Palynology Conference, June 2022, Stockholm, Sweden (invited).
- Wilf P, A Iglesias, MA Gandolfo. 2022. The first Gondwanan Euphorbiaceae fossils reset the biogeographic history of the diverse, paleotropical *Macaranga-Mallotus* clade. *Geological Society of America Annual Meeting, Denver.*
- Wilf P, X Zou*, MP Donovan†, L Kocsis, A Briguglio, D Shaw, JWF Slik, JJ Lambiase. 2022. First fossilleaf floras from Brunei Darussalam show dipterocarp dominance in Borneo by the Pliocene. 11th European Palaeobotany and Palynology Conference, June 2022, Stockholm, Sweden.
- Zonneveld J-P, Y Zaim, Y Rizal, Aswan, A Hascaryo, J Luque, N Santodomingo Aguilar, J Todd, P Wilf, JI Bloch. 2022. Stratigraphy, paleontology and depositional setting of the upper Eocene (Priabonian) Pagat Member, Tanjung Formation in the Satui area, Asem Asem Basin, South Kalimantan, Indonesia. *Geological Society of America Annual Meeting, Denver.*

TEACHING

1. Teaching at Penn State

Courses

Semester	Course No.	Course Title	Co-taught w/ (if appl.)	Type/credit s	Final enroll ment
2023					
Fall	Geosc 435	Geoscience Scholarship		Elective/3	
Fall	Geosc/Biol 420	Paleobotany		Elective/3	
(spring)	(teaching release)				
2022					
Fall	Geosc 435	Geoscience Scholarship		Elective/3	9
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	136
(spring)	teaching release				
2021					
Fall	Geosc 435	Geoscience Scholarship		Elective/3	9
Fall	Geosc/Biol 420	Paleobotany		Elective/3	20
(spring)	teaching release				
2020					
Fall	Geosc 435	Geoscience Scholarship		Elective/3	9
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	175
Spring	Geosc 204	Geobiology		Core /4	19
Spring	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	7
2019					
Fall	Geosc 435	Geoscience Scholarship		Elective/3	10
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	156

Geosc 204 Geosc 597	Geoscience Scholarship Dinosaur Extinctions and Other Controversies Geobiology		Elective/3 Gen. Ed./3	8
Earth 150 Geosc 204	Scholarship Dinosaur Extinctions and Other Controversies			8
Earth 150 Geosc 204	Scholarship Dinosaur Extinctions and Other Controversies			8
Geosc 204	and Other Controversies		Gen Fd/3	
	Geobiology		25 24./0	155
Geosc 597	= -		Core /4	47
	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	10
420	Paleobotany			18
	Geoscholarship		Elective/3	11
(sabbatical leave)				
•				
(sabbatical leave)				
Geosc 204	Geobiology		Core /4	44
Geosc 597	Paleobiology Seminar	Mark Patzkowsky, Tim Bralower	Grad. Seminar/1	9
Geosc 497	Geoscience Scholarship		Elective/3	5
Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	224
Geosc/Biol 420	Paleobotany		Elective/3	19
Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	9
Georg 197	Geoscience		Flective/3	7
	Scholarship			•
Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	219
Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	8
Geosc 204	Geobiology		Core /4	46
Geosc 497	Geoscience Scholarship		Elective/3	10
Earth 150	Dinosaur Extinctions and Other		Gen. Ed./3	221
Geosc/Biol	Paleobotany		Elective/3	19
Geosc 597	Paleobiology Seminar	Mark Patzkowsky, Russ Graham	Grad. Seminar/1	6
Teaching buyout, no classes]				
Geosc 204	Geobiology		Core /4	39
Geosc 597	Paleobiology Seminar	Mark Patzkowsky, Russ Graham	Grad. Seminar/1	10
	Geosc/Biol 420 Geosc 497 (sabbatical leave) (sabbatical leave) Geosc 204 Geosc 597 Geosc 497 Earth 150 Geosc/Biol 420 Geosc 597 Geosc 597 Geosc 497 Earth 150 Geosc 497 Earth 150 Geosc 597 Geosc 597 Geosc 597 Teaching buyout, no classes] Geosc 204	Geosc/Biol 420 Geosc 497 (sabbatical leave) Geosc 204 Geosc 204 Geosc 597 Geosc 597 Faleobiology Seminar Geosc 497 Geosc 497 Geosc ience Scholarship Earth 150 Dinosaur Extinctions and Other Controversies Geosc 597 Faleobiology Seminar Geosc 497 Geosc 597 Geoscience Scholarship Earth 150 Dinosaur Extinctions and Other Controversies Geosc 497 Geoscience Scholarship Earth 150 Dinosaur Extinctions and Other Controversies Geosc 597 Faleobiology Seminar Geosc 204 Geobiology Geosc 497 Geoscience Scholarship Earth 150 Dinosaur Extinctions and Other Controversies Geosc 497 Geoscience Scholarship Earth 150 Dinosaur Extinctions and Other Controversies Geosc 497 Faleobiology Geosc 597 Paleobiology Seminar Teaching buyout, no classes] Geosc 204 Geobiology Geosc 204 Geobiology	Geosc/Biol 420 Geosc 497 Geoscholarship (sabbatical leave) Geosc 204 Geobiology Geosc 597 Paleobiology Seminar Geosc 497 Geoscience Scholarship Earth 150 Dinosaur Extinctions and Other Controversies Geosc 597 Paleobiology Seminar Mark Patzkowsky Geosc 597 Paleobiology Seminar Mark Patzkowsky, Russ Graham Teaching buyout, no classes] Geosc 597 Paleobiology Seminar Mark Patzkowsky, Russ Geosc 597 Paleobiology Seminar Mark Patzkowsky, Russ Geosc 597 Paleobiology Seminar Mark Patzkowsky, Russ Graham	Geosc/Biol 420 Geosc 497 Geosc 204 Geosc 204 Geosc 204 Geosc 597 Paleobiology Seminar Geosc 497 Geosc 497 Geosc 497 Geosc 497 Geosc 497 Geosc 497 Geosc 597 Faleobiology Seminar Geosc 497 Geosc 497 Geosc 597 Faleobiology Seminar Geosc 497 Geosc 597 Faleobiology Seminar Geosc 597 Faleobiology Seminar Mark Patzkowsky, Tim Bralower Geosc 497 Geosc 497 Geosc 597 Faleobiology Seminar Mark Patzkowsky Faleobiology Seminar Mark Patzkowsky Geosc 597 Faleobiology Seminar Faleobiology Seminar Geosc 497 Geosc 497 Geosc 497 Geosc 497 Geosc 597 Faleobiology Seminar Geosc 597 Faleobiology Seminar Mark Patzkowsky Geosc 597 Geosc 497 Geosc 690 Geosc 497 Geosc 597 Faleobiology Seminar Faleobiology Geosc 497 Geosc 497 Geosc 497 Geosc 497 Geosc 497 Geosc 497 Geosc 597 Faleobiology Seminar Faleobiology Geosc 497 Geosc 597 Faleobiology Seminar Faleobiology Geosc 497 Geosc 597 Faleobiology Seminar Faleobiology Geosc 597 Faleobiology Seminar Faleobiology Faleobiol

2011					
Fall	Earth 150	Dinosaur Extinctions and Other		Gen. Ed./3	225
		Controversies			
Fall	Geosc 497	Geoscience Scholarship		Elective/3	8
Spring	Geosc/Biol 420	Paleobotany		Elective/3	19
Spring	Geosc 597	Paleobiology Seminar	Mark Patzkowsky, Russ Graham	Grad. Seminar/1	10
2010					
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	218
Fall	Geosc 597	Plant Paleobiology Seminar		Grad. Seminar/2	6
Spring	Geosc 204	Geobiology		Core /4	42
Spring	Geosc 597	Paleobiology Seminar	Russ Graham	Grad. Seminar/1	9
Spring					
2009 Fall	Cocco	Earth Talks Seminar		Crod	40
	Geosc 597A			Grad seminar/2	10
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	206
[Spring	Sabbatical, no classes.]				
2008					
[Fall	Sabbatical, no classes.]				
Spring	Geosc 204	Geobiology		Core /4	24
Spring	Geosc 597	Paleobiology Seminar	Mark Patzkowsky, Russ	Grad. Seminar/1	8
2007			Graham		
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	222
Fall	Geosc 597	Paleobiology Seminar	Mark Patzkowsky, Russ Graham	Grad. Seminar/1	7
Spring	Geosc/Biol 420	Paleobotany		Elective/3	11
Spring	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	5
2006					
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	82
Fall	PSU 010	Fossils on the Cutting Edge		Fresh. Seminar/1	18
Fall	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	7
Spring	Geosc 204	Geobiology	,	Core /4	24
Spring	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	7
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	83
Fall	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	7
Spring	Geosc/Biol	Paleobotany		Elective/3	18

Spring	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	8
Fall	Geosc 597	Terrestrial Paleoecology		Grad. Seminar/2	6
Fall	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	9
Fall	Earth 150	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	88
Spring	Geosc 204	Geobiology		Core /4	19
Spring	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	10
2003			-		
Fall	Earth 297b	Dinosaur Extinctions and Other Controversies		Gen. Ed./3	34
Fall	Geosc 597	Paleoclimate Proxies	Dana Royer	Grad. Seminar/2	6
Fall	Geosc 597	Paleobiology Seminar	Mark Patzkowsky	Grad. Seminar/1	9
Spring	Geosc 204	Geobiology	Mark Patzkowsky	Core /4	21

Supervision of student and postdoctoral research, and hosting Visiting Scholars Visiting Scholars

Dr. Jingyu Wu (2015-2016 full year), from Lanzhou University, Lanzhou, China.

Dr. Tao Su (Fall 2013), from Xishuangbanna Tropical Garden, Yunnan, China.

Postdoctoral Research Scientist.

Dr. Ari Iglesias, 2007-2008. Current- CONICET Adjunct Investigator, Univ. Comahue.

Dr. Stefan A. Little, 2006-2009. Current- Research Associate, University of Victoria.

Dr. Dana Royer, 2002–2005. Current- Professor of Earth and Environmental Sciences, Wesleyan University. 2010 GSA Donath Medalist (Young Scientist Award).

Ph.D.

Edward Spagnuolo, 2022-.

Tengxiang Wang, 2021-.

Gabriella Rossetto Harris, 2019-.

- **Dr. Michael Donovan**, defended June 12, 2017. Recovery of plant-insect associations in Patagonia, Argentina after the end-Cretaceous extinction. Current—Paleobotany Collections Manager, The Field Museum.
- **Dr. Ellen Currano**, defended June 11, 2008. *Variations in insect herbivory on angiosperm leaves through the late Paleocene and early Eocene in the Bighorn Basin, Wyoming, USA*. Current–Professor of Biology and Geology, University of Wyoming.

M.S.

L. Alejandro Giraldo, 2021-2023, then continuing for Ph.D.

Elena Stiles Rosselli, defended June 5, 2019. *Plant extinction and recovery dynamics across the Cretaceous-Paleogene transition in southern South America.*

Gabriella Rossetto-Harris, defended June 4, 2019. *Eocene fossils of* Araucaria Sect. Eutacta from Patagonia and their implications for floral turnover during the initial isolation of South America.

Lisa Merkhofer, defended June 2, 2014. Sizing up the leaves of an Eocene Patagonian paleorainforest and its Australian analogs.

Dr. Michael Donovan, defended June 14, 2013. Evidence for a novel insect leaf-mining fauna after the end-Cretaceous extinction and the demise of Cretaceous leaf miners (Mexican Hat, early Paleocene, Montana, USA).

Sara Elliott, defended July 5, 2012. *Subfossil leaves from Lancaster County, Pennsylvania reveal a new upland floral component of the pre-European Piedmont landscape.*

Cassandra Knight, defended July 5, 2012, Rare leaf fossils of Monimiaceae And Atherospermataceae (Laurales) from Eocene Patagonian rainforests and their biogeographic significance.

Dr. Mónica Ramírez Carvalho, defended June 16, 2011, *Tropical canopy insects link leaf damage in fossil and living forests*. From 2023: Assistant Professor, University of Michigan, Earth and Environmental Sciences.

Dr. Christen Grettenberger (Miller), defended Jun 8, 2011, Lessons from soggy leaves: a presettlement flora from White Clay Creek, Chester County, Pennsylvania.

Dr. Bárbara Cariglino, defended March 28, 2007, *Paleoclimatic analysis of the Eocene Laguna del Hunco, Green River, and Republic floras using digital leaf physiognomy.*

Committee member for

Karen Pham (PhD in progress)

Adam Benfield (PhD in progress)

Dr. Judi Sclafani (PhD, defended September 13, 2019)

Ashley Grey (MS, defended May 9, 2017)

Dr. Max Christie (PhD, defended June 8, 2017)

Eriks Perkons (MS, defended February 17, 2016)

Dr. Heather Graham (PhD, defended September 26, 2013)

Travis Deptola (MS, defended September 2012)

Emily Comer (MS, defended August 8, 2011)

Dr. Jocelyn Sessa (PhD, defended May, 2009)

Dr. James Bonelli (PhD. defended June. 2008)

Dr. Andrew Krug (PhD, defended March 2006)

Senior thesis

Nicholas Hornicak, 2023, (proxy advisor; main supervisor M. Lamanna, Carnegie Museum). **Edward Spagnuolo**, 2022, *Decoding family-level features for modern and fossil leaves from computer-vision heat maps.* (2022 Dean Edward Steidle Memorial Scholar, College of Earth & Mineral Sciences; NSF GRFP awardee).

Xiaoyu Zou, 2021. The first fossil leaf flora from Brunei Darussalam: relationships with the living Borneo flora. (2021 Dean Edward Steidle Memorial Scholar, College of Earth & Mineral Sciences). Tyler Haas, 2014. What's hiding in plain sight in fossil leaf assemblages? Recovering large leaves from unidentified fossil leaf fragments.

Kaitlyn McMullen, 2013. Does leaf vein density predict species abundance? A test from the fossil record.

Daniel Danehy, 2006. An early Eocene fossil leaf flora from the Red Hot Truck Stop locality (Meridian, Mississippi) and its biogeographic and paleoenvironmental significance.

Crystal Kirby, 2005. Correlating climate and leaf economics to leaf physiognomy within a single California oak species (Quercus kelloggii Newberry), 22 p.

David Janesko, 2004, *Digital leaf physiognomy: calibration and testing of a new paleothermometer using modern floras*, 85 p.

Undergraduate field and lab assistants at Penn State

Current: PJ Przybylski (mentor: Edward Spagnuolo).

Previous: Edward Spagnuolo, Akira Regotti (mentor: Alejo Giraldo), Kevin Johansson (mentor: Edward Spagnuolo), Xiaoyu Zou, David Janesko, Lindsay Mathwick, Crystal Kirby (mentor: Dana Royer), Daniel Danehy, Eriks Perkons, Kevin Rega, Alysa Young, Dylan Frey, Jennifer Kissell, Katie McMullen, Tessie Menotti.

2. Teaching prior to employment at Penn State University-level courses taught

University	Role	Semest er	Course Title	Type/hrs. per week	Enroll ment	Student evaluation* / possible points
University of Michigan	Professor	Winter 2002	Dinosaur Extinctions and Other Controversies	Freshman seminar/ 3.0	20	4.94/ 5
University of Michigan	Professor	Winter 2001	Dinosaur Extinctions and Other Controversies	Freshman seminar/ 3.0	20	4.73/ 5
University of Michigan	Professor	Winter 2000	Dinosaur Extinctions and Other Controversies	Freshman seminar/ 3.0	20	4.97/ 5
University of Pennsylvania	Instructor**	Fall 1995	Introductory Geology Laboratory	Core majors/ 3.0	7-10	3.7/ 4
University of Pennsylvania	Instructor**	Spring 1995	Introductory Geology Laboratory	Core majors/ 3.0	7-10	3.7/ 4
University of Pennsylvania	Instructor**	Fall 1994	Introductory Geology Laboratory	Core majors/ 3.0	7-10	3.7/ 4
University of Pennsylvania	Teaching assistant	Spring 1994	Ideas in Mathematics	Gen. Ed./ 4.0	90-100	3.3/ 4
University of Pennsylvania	Teaching assistant	Fall 1993	Ideas in Mathematics	Gen. Ed./ 4.0	90-100	3.6/ 4***

^{*}of instructor or TA quality depending on role (col. 2).

Other teaching and training activities

University of Michigan

Undergraduate research supervisor.

2000-2002 academic years: research supervisor of two freshmen, **Peter Huff, Ebere Azumah**. Results published in *Palaios* with Huff as first author (Huff et al. 2003).

Ph.D. Committee Member, Elizabeth Kowalski, Museum of Paleontology; defended Jan., 2001.

1999-2001: Guest lecturer in the following courses: Plant-Animal Interactions, Paleoclimatic Methods, Paleontology Seminar, Biogeography.

Smithsonian Institution

Trained volunteers and staff in paleobotany collections methods; spent more than 200 hours preparing plant fossils in the public fossil lab and interacting with the public; manned paleobotany booth for Staff Day.

Undergraduate field assistants, southwestern Wyoming 1994-1996: Nate Smith, Carrie Morrill, Phil Wade, Dana Royer.

Middle-school teacher

1985-1988: **Full-time teacher** of 7th and 8th grade mathematics, science and current events, **Westfield Friends School**, Cinnaminson, NJ. Developed and implemented new curriculum in 7th grade life sciences and 8th grade physical sciences. Homeroom teacher for 8th grade.

Freelance, other

1989-1993: Taught ~20 private guitar lessons per week. Private tutor for grades 6-12 in math, chemistry, biology, Latin, and French, 5-12 hours/week. Instructor in Science and Art for inner-city summer camp, United Communities of Southeast Philadelphia, four locations.

^{**}Primary instructor for course as graduate student.

^{***}Received Math Department's Good Teaching Award.

SERVICE

Editorial board / academic editor

2019-, PhytoKeys.

2017-, PeerJ.

2014-, Ameghiniana.

2013-2016. PloS One.

2004-2006. Geology.

2002-2006. Palaios.

Reviewer of 308 manuscripts and proposals, for (no. if >1):

funding proposals

AAAS: Women's International Scientific

Cooperation (WISC) project

ACS- American Chemical Society (6)

American Philosophical Society

Czech Science Foundation (4)

DFG (Deutsche Forschungsgemeinschaft,

German Research Foundation) (2)

DOE- Department of Energy

FONCyT (Argentina, 3)

Graduate Women in Science (3)

Israel Science Foundation (2)

John Simon Guggenheim Memorial Foundation

Natural Environment Research Council (UK)

National Geographic Society Committee for

Research and Exploration (9)

NSF- National Science Foundation (79)

NSERC- Natural Sciences and Engineering

Research Council of Canada (2)

SENACYT. Panama (7)

Swiss National Science Foundation

journal articles and book chapters

Acta Palaeobotanica (3)

Alcheringa (2)

Ameghiniana (3)

American Journal of Botany (8)

American Naturalist

Annals of Botany (2)

Annals of the Missouri Botanical Garden

AoB Plants

Applications in Plant Sciences

Australian Journal of Earth Sciences

BMC Evolutionary Biology (3)

Botany

Canadian Journal of Earth Sciences (2)

Courier Forschungsinstitut Senckenberg (2)

Ecology

Ecology Letters (2)

Geological Society of America Bulletin (3)

Geological Society of America Special

Publications (2)

Geological Society of London

Geology (13)

Geophysical Research Letters

Global Ecology and Biogeography (3)

Indiana University Press

International Journal of Plant Sciences (7)

Journal of Biogeography (3) Journal of Mammalian Evolution Journal of Systematic Palaeontology

Journal of Systematics and Evolution

National Science Review

Nature (2)

Nature Communications (2)

Nature Ecology & Evolution (3)

Neues Jahrbuch für Geologie und Paläontologie

(2)

New Phytologist (7)

Oecologia

Palaeontologia Electronica (3)

Paleontological Society Special Pubs.

Palaios (7)

Paleobiology (19)

Paläontologische Zeitschrift

Penn State Press

PeerJ (17)

PLoS One (22)

PNAS (6)

Proceedings of the Academy of Natural

Sciences, Philadelphia

Proceedings B (3)

Rocky Mountain Geology

Science (11)

Science Advances

University of Michigan Papers in Paleontology

full-length book manuscripts

University of California Press

University of Chicago Press

Symposia, workshops, and conference field trips organized

- 2018, Co-organizer for symposium, *Origins, assembly and evolution of the South and SE Asian biota:* insights from rocks, fossils, genes and plots. Association for Tropical Biology and Conservation 55th Annual Meeting, Kuching, Malaysia.
- 2014, May, Hosted 31st Midcontinent Paleobotanical Colloquium at Penn State.
- 2010, August, *ARC-NZ Research Network in Vegetation Function* workshop, Gondwanan Rainforests; Macquarie University, Sydney, Australia, sponsored by Australian Research Council and Landcare Research, New Zealand (competitively awarded, ~\$10,000 AUS). Conveners: Peter Wilf, Penn State; Robert Kooyman and Mark Westoby, Macquarie University.
- 2009, July, with Steven Manchester, *Paleogene Floras of Southwestern Wyoming*. Post-conference field trip for Botanical Society of America Annual Meeting, Snowbird, Utah, 19 participants.
- 2008, June, *ARC-NZ Research Network in Vegetation Function* workshop, *Calibrating Evolutionary Dates*; Melbourne, Australia, sponsored by Australian Research Council and Landcare Research, New Zealand (competitively awarded, ~\$15,000 AUS). Conveners: Maria Gandolfo, Cornell, David Cantrill, Royal Botanic Gardens Melbourne, Peter Wilf, Penn State.
- 2004, March: Main convener (with K.R. Johnson and S.L. Wing) of symposium for VIIth International Organization for Paleobotany meeting, Bariloche, Argentina, *Global view of Paleogene floras*, ~17 invited international speakers.
- 2004, March: Field trip leader (with K.R. Johnson and M.A. Gandolfo) for VIIth International Organization for Paleobotany meeting, Bariloche, Argentina, of Post-Meeting Field Trip, "Paleogene Floras of Patagonia." Member of Field Trip Committee for the meeting.
- 2003, November: Main convener (with R.J. Burnham, M.A. Gandolfo, and K.R. Johnson) of Topical Symposium for Geological Society of America Annual Meeting, Seattle, *Terrestrial paleobiology of South America, Cretaceous through Neogene*; 12 speakers, incl. 2 invited foreign and 2 invited domestic speakers. Sponsors: PRF, Paleontological Society.

Public research lectures/presentations/activities/videos

- 2021. WPSU Virtual Summer Camp 2021: <u>Interview</u> for *STEM Thursdays with Eberly College of Science*.
- 2021. Westfield Friends School, Cinnaminson NJ, 5th-8th grade.
- 2016, 2017, 2020, 2021. Young Scholars of Central Pennsylvania Charter School (various paleo presentations for 2nd-8th grades).
- 2020, August. Ginkgo: A Living Fossil in the Arboretum. YouTube short for Arboretum at Penn State.
- 2020 May. The oldest plant at the Arboretum. YouTube short for Arboretum at Penn State.
- 2020, May, e-lecture for Penn State Master Gardeners.
- 2019, September. Penn State's Living-Fossil Trees activity for Penn State Arboretum volunteers.
- 2019. January. Conversations with Colleagues lecture series, The Village at Penn State.
- 2015, September. Presenter for Penn State Earth & Environmental Systems Institute: GEMS Showcase Event.
- 2015, 2017, 2018. Science Fair Judge, Young Scholars of Central Pennsylvania Charter School.
- 2011, January, University of Washington, Burke Museum of Natural History.2010, April. *Research Unplugged* talk, State College Theatre.
- 2009, July. After-dinner talk for *Paleogene Floras of Southwestern Wyoming*, co-led post-conference field trip for Botanical Society of America Annual Meeting, Snowbird, Utah.
- 2008, March. For Dino Day event, Penn State Earth and Mineral Sciences Museum.
- 2006, October. Pennsylvania Native Plant Society, main speaker for annual winter meeting (Shavers Creek, PA).
- 2006 and 2007. October, for Penn State Parents and Families Weekend.
- 2004, February, Nittany Mineralogical Society, University Park.
- 1996 and 1995, July. Western Wyoming Community College, Rock Springs (with several public field trips to collect fossils).

Other external service

- 2023–2025. Paleontological Society: Selection Committee member for the Harold Strimple Award (distinguished amateur paleontologist award).
- 2020–2023: Botanical Society of America: Development Committee.
- 2018–2020: Paleontological Society: Fellows Selection Committee. Committee Chair in 2020.

- 2016-2018: Botanical Society of America: Maynard Moseley Award Committee. Chair of Committee 2018.
- 2017: External reviewer for a faculty search at a major European university.
- 2016: Paleobotanical Section of Botanical Society of America: committee to select next Treasurer.
- 2015: Paleobotanical Section of Botanical Society of America: committee to select next Section Chair.
- 2012-2014: Paleontological Society: Councilor Unrestricted (by nomination and contested election).
- 2012. Botanical Society of America, Paleobotanical Section: committee on student travel awards.
- 2011. Botanical Society of America, Paleobotanical Section: committee for graduate training guidelines for paleobotanists.
- 2008–2011. Geological Society of America: Committee on Research Grants, Member-at-Large.
- 2010–2011. Paleontological Society: Selection Committee member for the Harold Strimple Award (distinguished amateur paleontologist award).
- 2006–2011. Paleobiology Database: Advisory Board.
- 2008–2010. Nature: Reader Advisory Panel (by invitation of Editor-in-Chief).
- 2007–2010, Paleontological Society: Committee on Nominations. Chair, 2009-2010.
- 2009. Botanical Society of America: Committee to select next Chair of Paleobotanical Section.
- 2006, organized Paleobotany Banquet for 54 paleobotanists attending GSA, Philadelphia.
- 2004. Carnegie Museum of Natural History: Exhibit advising, Dinosaurs in their World.
- 1999: The Jason Project: volunteer scientific consultant for "JASON X: Rainforests A Wet & Wild Adventure;" http://www.jason.org. Advisor for online module on leaf-margin analysis, subsequently used in many classrooms.
- 1998–1999. President, Paleontological Society of Washington, DC.
- 1997–1998. Secretary, Paleontological Society of Washington, DC. Organized monthly seminar series.

Paleobiology Database: Contributor, >600 collections entered, www.paleobiodb.org

Penn State

Active/Recent

- 2022 Department of Geosciences: Promotion & Tenure Committee.
- 2022 Faculty Advisory Committee, College of Earth and Mineral Sciences.
- 2022 Packard Fellows internal reviewer, Penn State University.
- 2021 Chair of Environmental Scholars Program, Earth & Environmental Systems Institute (EESI).
- 2021–2022. Department of Geosciences: planning committee for faculty hiring.
- 2020 Faculty mentor for one assistant professor.
- 2019– Department of Geosciences: Undergraduate Program Committee.
- 2011 The Arboretum at Penn State: Collections Committee.
- 2010– Schreyer Honors College: Honors Advisor.

Previous

- 2021. Schrever Honors College: applications reviewer.
- 2021. Teaching review committee for one assistant professor.
- 2020–2021. Earth & Environmental Systems Institute (EESI): Search Committee member, environmental data analytics faculty hire.
- 2020. Earth & Environmental Systems Institute (EESI): Newsletter Guest Editor.
- 2018–2020. Department of Geosciences, Graduate Admissions Committee.
- 2018–2019. College of EMS: Museum Director Search Committee.
- 2018. Department of Geosciences: Tenured and Tenure-Track Faculty Evaluation Committee.

- 2017–2018. Dept. of Geosciences: Search Committee for Department Head.
- 2011–2018. Department of Geosciences: Undergraduate Program Committee.
- 2015–2016. Penn State University: STEM Museum Committee.
- 2015. Penn State Institutes of Energy & the Environment: reviewer, PSIEE seed grant preproposals.
- 2015–2016. Department of Geosciences: Teaching review committee for a tenure-track professor.
- 2015. Department of Geosciences: Tenured and Tenure-Track Faculty Evaluation Committee.
- 2015. Penn State University: Undergraduate Teaching Awards, Review Committee.
- 2014–2016. Earth & Environmental Systems Institute (EESI): Advisory Committee.
- 2009–2016. Department of Geosciences: Rover (non-committee faculty member) for Doctoral Candidacy exams.
- 2009-2010. College of Earth and Mineral Sciences: Task Force on Fixed Term Faculty Promotions.
- 2009, Fall. Organized Earth Talks seminar series for Earth and Environmental Systems Institute,
 - Landscape Change, Climate Change, and Organisms: Ancient to the Future, 11 invited speakers.
- 2007-2008. Department of Geosciences: Chair of Graduate Admissions Committee.
- 2007–2008. Department of Geosciences: Teaching review committee for a tenure-track professor.
- 2007 (spring). College of Earth and Mineral Sciences: Earth Systems Ecology Search Committee.
- 2005–2008, 2009–2010. Department of Geosciences: Undergraduate Program Committee.
- 2006–2017. Penn State University: Packard Fellowship Nomination Committee.
- 2005–2007. College of Earth and Mineral Sciences Museum: Exhibit Committee.
- 2003–2005. Department of Geosciences: Graduate Programs Committee.
- 2003–2004. Department of Geosciences: GeoEducation Search Committee.
- 2002–2003, 2005—2007. Department of Geosciences: Graduate Admissions Committee.
- 2002–2003. College of Earth and Mineral Sciences: Museum Revitalization Committee.

University of Michigan

2000–2002. Distinguished Dissertations Awards Committee, Rackham School of Graduate Studies, University of Michigan. Wrote formal citations for awardees in Physics and Biology.

1999–2001. Review committee, applications for Michigan Society of Fellows postdoctoral fellowships in several disciplines.

SOCIETY MEMBERSHIPS

AAAS American Geophysical Union American Society of Plant Taxonomists Asociación Paleontológica Argentina Botanical Society of America Geological Society of America International Organization for Paleobotany Paleontological Society

RESEARCH SUPERVISORS

Scott L. Wing, Smithsonian National Museum of Natural History (Ph.D. thesis advisor); Peter Dodson and Hermann W. Pfefferkorn, University of Pennsylvania (committee members); Conrad C. Labandeira, Smithsonian National Museum of Natural History (postdoctoral supervisor).

MEDIA COVERAGE:

see http://www3.geosc.psu.edu/~pdw3/media.html for additional articles and links

On the Air, broadcasts and videos:

- <u>This Green Earth</u>, KPCW (NPR: Park City, Utah), hosts Chris Cherniak and Nell Larson, 14 June
 2022
- talkSport radio: Extra Time with Paul Ross (London), 7 April 2021. (starts 9:38 in)
- <u>Fossilized nuts on the wrong side of the world</u>. Science with Jonathan Webb, Radio National Breakfast (Australia), 6 June 2019.
- BBC 5 Live Breakfast, interview with Clare McDonnell, 6 January 2017.
- <u>Tomato ancestor evolved 50 million years ago near Antarctica</u>. Video by Science/AAAS, 05 Jan 2017.
- Peter Wilf <u>Computer Vision Cracks the Leaf Code</u>. Video by Penn State College of Earth and Mineral Sciences, 6 June 2016.

- Radio New Zealand interview on This Way Up with Richard Scott, 16 April 2016.
- People Behind the Science (podcast interview), 7 July 2014.
- Academic Minute, WAMC Northeast Public Radio, to air March 24, 2014, <u>Tracing the path of conifer fossils</u>.
- KPCC Los Angeles (NPR station), *Take Two*, interview with Megan Larson on fossil tomatillo from Laguna del Hunco, November 5, 2013.
- CNN, January 26, 2010, 10 AM. Interview on Argentina NSF stimulus grant by TJ Holmes and Kyra Phillips.
- National Public Radio, *All Things Considered*, interview by John Nielsen, June 26, 1999. Global warming's effects on insect populations.
- Voice of America Radio, *Agriculture Today*, interview by Robert Sivak, June 25, 1999. Insects, plants, and climate change.

Highlights within peer-reviewed journals

- <u>Sixty six million years of insects feeding on kauris</u>. *Communications Biology* "Behind the Paper" feature by lead author Michael Donovan, 25 November 2020.
- Ancient insect bites provide mass extinction insight. Nature Asia Research Highlight, 8 November 2016
- <u>Evolution: peaches appear earlier than humans in southwest China</u>. *Nature Asia* Research Highlight, 27 November 2015.
- Warm swarms. By Anna Barnett, Nature Reports Climate Change, 21 February 2008, doi:10.1038/climate.2008.17.
- The land that insects forgot. By Erik Ness, Frontiers in Ecology and the Environment (ESA publication), October 2006 issue, p. 397.
- Ancient Roots of South American plant-insect ecodiversity. PNAS 102: 8789 ("In this Issue" highlight on Wilf et al. 2005, PNAS).
- Lundmark, C., 2005. Floral diversity preserved in fossils. Bioscience 55: 544 ("BioBrief" on Wilf et al. 2005, Am. Nat.)
- Pennisi, E. Chewed leaves reveal ancient relationship. Science, News of the Week, July 14, 2000.
- Greensfelder, L., Warming climate made a buzz. *Science Now* (online, from *Science* Magazine), June 25, 1999.

Popular print and web media, etc.

- <u>Fossil evidence confirms persistence of prehistoric forests in Brunei</u>. By John Cannon, Mongabay, 31 May 2022.
- Fossils of leaves in Borneo reveal an ancient 4 million-year-old forest. By David Nield, ScienceAlert 1 May 2022.
- <u>Trace fossils, the most inconspicuous bite-sized window into ancient worlds</u>. By Jeanne Timmons, Ars Technica 11 June 2021.
- <u>Australia, danneggiata la foresta pluviale ed alcuni esemplari unici di piante fossili</u>. By Thomas Schoch, Rinnovabili.it, 8 April 2020.
- A forest and its history, threatened. By Kevin Sliman, Penn State News, 6 April 2020.
- <u>A forgotten forest of ancient trees was devastated by bushfires</u>. By Maddie Stone, The Atlantic, 25 February 2020.
- <u>Prehistoric tree is first of its kind found below the Equator.</u> By Catherine Zuckerman, National Geographic news, 6 June 2019.
- Fossil nuts from ancient Gondwanan beech tree challenge plant evolution. By Anna Salleh, ABC (Australia), 6 June 2019.
- Encuentran restos de Castanopsis en la Patagonia de 52 millones de años. By Miguel Faigón, CONICET news. 6 June 2019.
- Secrets of leaf size revealed. By Karl Gruber, Australian Geographic, 1 September 2017.
- <u>Interview: Scientists discover hidden mystery of leaf size in world's first study</u>. By Will Koulouris, Xinhua, 1 September 2017.
- Why are leaves so big in the tropics? By Tim Wallace, Cosmos, 1 September 2017.

- Why some plants have huge leaves and others have tiny ones. By Kelsey Kennedy, Atlas Obscura, 31 August 2017.
- <u>Clues to why leaves come in many sizes</u>. By Helen Briggs, BBC News, 31 August 2017.
- New research unlocks the mystery of leaf size. By Ian Wright, The Conversation, 31 August 2017.
- We may finally understand why tropical plants have huge leaves. By Alice Klein, New Scientist, 31 August 2017.
- Prähistorische Knolle: Kartoffeln sind über 50 Millionen Jahre alt! Die Kartoffel, 2 February 2017.
- <u>El origen del tomate: hallan en Chubut restos fósiles de unos 52 millones de años</u>. By Carlos Guajardo, Clarin (Argentina), 11 January 2017.
- Newly discovered 52-million-year-old fossil hints one fruit is a lot older than we thought. By Alex Orlov, Mic.com, 11 January 2017.
- <u>Salsa primeval: 52-million-year-old tomatillo found</u>. By Lucas Viano, Scientific American, 11 January 2017.
- 52 million-year-old tomatillo fossils rewrite veggie history. By Angus Chen, NPR Food, 10 January 2017.
- <u>Tomatillo fossils, 52 million years old, are discovered in Patagonia</u>. By Nicholas St. Fleur, New York Times, 9 January 2017.
- Ancient tomato ancestors found in 52-million-year-old Patagonian stone. By Ben Guarino, Washington Post, 6 Jan 2017
- <u>'Rare and exquisite' 52-million-year-old fossil fruits discovered with papery skins still intact.</u> By Martha Henriques, International Business Times (UK), 5 Jan 2017.
- Researchers uncover fossils of 52-million-year-old tomatillos. By Danny Lewis, Smithsonian Magazine, 6 Jan 2017
- When did tomatillos start wearing papery jackets? By Josh Kenworthy, Christian Science Monitor, 6 Jan 2017.
- Tomatillo fossil is oldest nightshade plant. By Meghan Rosen, Science News, 5 Jan 2017.
- <u>Deadly (and delicious!) nightshades much older than thought</u>. By Gemma Tarlach, Discover Magazine, 05 Jan 2017.
- How did potatoes, tomatoes evolve? Let a 52-million-year-old berry fossil explain! Zee News (India), 9 Jan 2017.
- How long did it take for life to rebound after the death of the dinosaurs? By Sarah Kaplan, Washington Post, 7 November 2016.
- Southern hemisphere faster to recover after killer asteroid, study suggests. By Nicola Davis, The Guardian, 7 November 2016.
- <u>After dinosaur extinction, some insects recovered more quickly</u>. By Nicholas St. Fleur, New York Times "Trilobites" column, 7 November 2016.
- <u>Massensterben im Spiegel fossiler Fraßschäden</u>. By Martin Vieweg, wissenschaft.de, 7 November 2016.
- L'hémisphère Sud a mieux récupéré de la catastrophe qui a causé l'extinction des dinosaures. By Joël Ignasse, Sciences et Avenir, 11 November 2016.
- I morsi degli insetti illuminano l'estinzione del Cretaceo. La Scienze (Italy), 7 November 2016.
- Ancient insect bite sheds light on mass extinction event that killed dinosaurs. By Léa Surugue, International Business Times UK, 7 Novembetr 2016.
- Southern Hemisphere recovered quicker from devastating asteroid strike. Eurasia Review, 11 November 2016.
- <u>Los insectos le ganaron la batalla al meteorito que mató a los dinosaurios</u>. By Nuño Domínguez, El Pais, 7 November 2016.
- Southern Hemisphere bouced back TWICE as fast as the North from the asteroid that wiped out the dinosaurs. By Abigail Beall, Daily Mail UK, 7 November 2016.
- Was South America a refuge during the dino-killing mass extinction? By Eva Botkin-Kowacki, Christian Science Monitor, 7 November 2016.
- After dino-killing collision, species down south bounced back fastest. By Chris Butler, Cosmos Magazine, 8 November 2016.

- <u>Marcas fósiles de insectos aportan una nueva visión sobre extinciones masivas</u>. By Ari Iglesias, for CONICET, 11 July 2016.
- <u>Leaf mines say Southern Hemisphere recovered faster from asteroid</u>. By Jennifer Frazer, Scientific American "Artful Amoeba," 7 November 2016.
- Southern Hemisphere recovered faster from dino strike. By Helen Briggs, BBC News 7 November 2016.
- <u>Una mega-extinción vista desde los fósiles de hojas en Argentina</u>. By Ari Iglesias, ANBariloche, 23 December 2016.
- Seeing the invisible history of leaves. By Lance Farrell, Science Node, 13 April 2016.
- Το μεγάλο των φύλλων σχολείο (The big school of leaves). By Lalina Fafouti, To Vima (Athens), 7
 April 2016.
- Earth's history through tree leaves. By Shelley Littin, NSF-CyVerse, 25 March 2016.
- A "Shazam' app for plant identification may be here soon.
 By Sean Kane, Tech Insider, 21 March 2016.
- A computer with a great eye is about to transform botany. By Margaret Rhodes, Wired, 17 March 2016
- <u>La familia del café: ahora, con 13,000 especies vivas</u>. By Germán Ayala, Portafolio (Colombia), 11 March 2016.
- Computer vision can help classify leaves. By David Orenstein (Brown Univ. press release), 7
 March 2016.
- Computer program solves mysteries of fossilized leaves. By Megan Treacy, Treehugger, 15
 March 2016.
- In Cina, le pesche arrivarono prima dell'uomo. By Elisabetta Intini, Focus, 7 December 2015.
- Peach dates back 2.6 mln years. Xinhua, Shanghai Daily, and People's Daily 5 December 2015.
- China had peaches before it had humans. Science Now (AAAS), 2 December 2015.
- World's oldest peach found in China, presumably no longer delicious. By Rachel Feltman, Washington Post, 2 December 2015.
- World's oldest peach pits found in China at 2.5 million years old. By Ana Verayo, China Topix, 2
 December 2015.
- <u>Fossilized peach pits look identical to modern varieties of the fruit.</u> By Natalia Hall, Northern Californian 1 December 2015.
- World's oldest peach pits shed light on the evolution of the fruit. By Rogelio Estrada, Seating Chair. 2 December 2015.
- <u>Fossilized peach pits were discovered in China</u>. By Lori Martinez, Regal Tribune, 2 December 2015.
- <u>The Paleo Peach: First fossil peaches discovered in China reveal ancient snack.</u> By Catherine Griffin, Science World Report, 2 December 2015.
- 2.5-Million-Year-Old Fossilized Peaches Found in China. By Natali Anderson, Sci-News.com, 2
 December 2015
- <u>Scientists uncover the world's oldest peach pits in China</u>. By Sam Catherman, BABW News, 2 December 2015.
- <u>Paleo Peaches? First fossil peaches discovered In China.</u> By Samantha Mathewson, Nature World News, 2 December 2015.
- World's oldest peach pit reveals juicy secrets: 2.5 million-year-old fruit originated in China BEFORE the arrival of humans. By Cheyenne MacDonald, Daily Mail, 2 December 2015.
- <u>Paleo peach pits: Was the sweet, juicy fruit in China before humans?</u> By Eva Botkin-Kowacki, Christian Science Monitor, 2 December 2015.
- <u>Scientists find world's oldest peach pits near Chinese bus stop</u>. By Brooks Hays, UPI, 2 December 2015.
- Oldest peach pits found In China shed light on evolution of the fruit. By Katrina Pascual, Tech Times 2 December 2015.
- <u>The amazing, bizarre history of the Peach uncovered at last</u>. By Dan Taylor, Morning Ticker, 2
 December 2015.

- World's oldest peach pits shed light on the evolution of the fruit. By Hira Bashir, I4U News, 2
 December 2015.
- Oldest peach remains were found in China. By Denise Ehrlich, Capital Berg, 2 December 2015.
- <u>Fossilized peach pits from 2.5 million years ago have been found</u>. By Brian Galloway, Capital Wired, 2 December 2015.
- <u>Fossilized peaches dated 2.5 million years old discovered in China</u>. Dipatch Tribunal, 2 December 2015.
- New fossils prove Peach's mother soil is China. By Ray Courtney, Albany Daily Star. 2 December 2015.
- Earliest peach fossils found in Yunnan. Chinese Academy of Sciences news, 1 December 2015.
- Oldest peach pits found in China. By Rossella Lorenzi, Discovery News, 1 December 2015.
- World's oldest peach pits reveal juicy secrets. By Megan Gannon. Livescience.com, 1 December 2015.
- 2.5 million year old peach fossils found in China. By Subodh Varma, The Times of India 1
 December 2015.
- The land where life has turned to stone. By Michelle Douglass, BBC Earth, 8 October 2015.
- <u>Paleontólogos demuestran errores de método para calcular edad de fósiles</u>. Diario Jornada (Argentina), 20 July, 2015.
- Descubren en Patagonia restos fósiles de árboles que hoy crecen sólo en Oceanía. CONICET ("Argentine NSF") press release, 3 February 2014.
- Researcher Discovers Asian Tree Fossil in South America. Tempo (Indonesia), 15 January 2014.
- <u>Fossils of ancient Australasian trees found in Patagonia</u>. By Megan Gannon, livescience.com, 10 January 2014.
- What America's forests looked like before Europeans arrived. By Becky Oskin, livescience.com,
 13 November 2013 (syndicated to Scientific American, NBC, Discovery News, Phys.org, more).
- <u>Buried Fossil Leaves Reveal Precolonial US Forests: Guiding Stream Restoration</u>. By Catherine Griffin, Science World Report, 14 November, 2013.
- Research Allows Reconstruction of Pre-colonial Landscape in Eastern U.S. Popular Archaeology, November 13, 2013.
- <u>Leaves tell the real story of Lancaster County</u>. By Ad Crable, Lancaster Intelligencer, 21 November 2013.
- <u>First accurate forest description before European's were in America presented</u>. By Paul Hamaker, Examiner.com. November 14, 2013.
- New World's oldest tomatillo discovered. By Becky Oskin, discovery.com, livescience.com, 4 November 2013.
- <u>Bugs in Patagonia survived dinosaur-killing impact</u>. By Becky Oskin, livescience.com, 4 November 2013.
- <u>Un écart de datation de 100 millions d'années</u>. By Suzanne Herzog, National Geographic France, January 9, 2012.
- <u>Study predicts increase in insect herbivore damage with climate change</u>. Press release, Miami University of Ohio, December 1, 2010.
- Ancient insects in warm climates. Ecological Society of America press release by Katie Kline, via Eurekalert, November 23, 2010.
- Wesleyan geoscientist Dana Royer to receive 2010 gold medal award, by Harry McBrien, Hartford Examiner, August 4, 2010.
- <u>State College couple are creative collaboration</u>, by Natalya Stanko. Centre Daily Times (page 1), April 26, 2010.
- Research Unplugged discussion series: ancient biodiversity in Patagonia, writeup by Erin Dugan. Research Penn State, April 13, 2010.
- <u>No Leaves Unturned</u>. Research Penn State book review of Manual of Leaf Architecture, by Melissa Beattie-Moss, February 23, 2010.
- <u>Picturing the Past. The Art of Paleo-Illustrator Rebecca Horwitt</u>. Research Penn State multimedia presentation on YouTube by Melissa Beattie-Moss and Sara Brennen, February 10, 2010.

- More Faces of Recovery. The President's Voice (White House Blog), January 27,. 2010. By Liz Oxhorn, Recovery Act Communications Director.
- Fósiles confirman que la Patagonia fue un vergel. By Bruno Geller, Argenpress / Agencia CYTA, December 28, 2009.
- New fossil plant discovery links Patagonia to New Guinea in a warmer past. Science Daily (press release from American Journal of Botany), November 10, 2009.
- Post-human Earth: How the planet will recover from us. By Bob Holmes, New Scientist issue 2729, September 30, 2009.
- World's biggest snake lived in 1st "modern" rain forest. By Ker Than, National Geographic News, October 13, 2009.
- Evidence found of neotropical rainforest. UPI, October 13, 2009.
- Prehistoric titanic-snake jungles laughed at global warming. By Lewis Page, The Register, October 13, 2009.
- El primer bosque húmedo neotropical fue el hogar de la titanoboa. OTR/PRESS, Europapress (Spain), October 13, 2009.
- Where in the world is Peter Wilf? By Jen Golding, statecollege.com, September 29, 2009.
- Mega-Einschlag hatte kaum Auswirkungen auf Europa (Mega-impact had little impact on Europe).
 Spiegel Online (chs/AP), October 29, 2009.
- Mass extinction event spared Europe (mostly). By Michael Reilly, Discovery Channel News/msnbc.com, September 23, 2009.
- Plants on death row in changing world. By Deborah Smith, Sydney Morning Herald, February 19, 2009.
- Plants are nature's niche conservatives. By Kate McDonald, Australian Life Scientist, February 16, 2009.
- Las raíces no sirven para huir. By Emilio de Benito, El País (Spain), February 16, 2009.
- The big buzz. Nature Geoscience, April 2008.
- Bones are not the only fossils. By Olivia Judson, New York Times, March 4, 2008. http://judson.blogs.nytimes.com/2008/03/04/bones-are-not-the-only-fossils/
- Meridian's Red Hot fossil spot. By Jennifer Jacob, The Meridian Star, Feb. 10, 2008, http://www.meridianstar.com/local/local_story_041003001.html
- Ancient global warming gave bugs the munchies. By John Roach, National Geographic News, February 11, 2008.
- Insects ravaged more plants in ancient hot period. By Deborah Zabarenko, Reuters, February 12, 2008.
- Warming could trigger food frenzy by insects. By Andrea Thompson, LiveScience/msnbc.com, Feb. 11, 2008.
- Insect explosion 'a threat to food crops'. By Steve Connir, The Independent, February 12, 2008.
- Study observes insects to explain climate change. By Samantha Van Vynck, Penn State Daily Collegian, February 26, 2008.
- Massasukupuutosta toipuminen on hidasta. By Suvi Viranta-Kovanen, Suomen Luonto (Finland), December, 2006.
 - <u>Vielseitiger Imbiss</u>. By Andreas Jahn, Spektrum.de, 24 August 2006.
- Insectes et plantes: chacun pour soi. By Philippe Pajot, Pour la Science (French edition of Scientific American, monthly "Actualités" Science feature), October 2006.
- Turning over an old leaf. By Stacy Tibbetts, Research Penn State feature story, Sept. 5, 2006.
- Fossils suggest chaotic recovery from mass extinction. By Andrea Thompson, Live Science, Sept. 1, 2006.
- Leaves leave more questions than answers about post-destruction biodiversity. By Eric Jackson, The Panama News, August 6-19, 2006.
- Leaves with pointy edges explained. By Jennifer Viegas, Discovery News Brief, February 17, 2006.
- 52 millones de años de pura variedad. By <u>Ramiro Velásquez Gómez</u>, El Colombiano, Medellin, Colombia, August 12, 2005.
- Importante hallazgo cientifico en la Patagonia: hallan en el Sur sitios con fósiles de flora únicos en el mundo. Clarin, Buenos Aires, Argentina, April 27, 2005.

- Trove of leaf fossils raises new questions about ancient plant life. by Byron Spice, Pittsburgh Post-Gazette, April 7, 2003.
- Estudos atacam teoria sobre biodiversidade (Studies attack biodiversity theory). Folha de Sao Paulo, Brazil, April 4, 2003.
- La diversidad vegetal americana no es reciente (The diversity of American vegetation is not recent).
 La Nacion, Argentina, April 4, 2003.
- La diversidad de vegetación en América del Sur existe desde hace 52 millones de años (The diversity of South American vegetation has existed for 52 million years). El Tiempo, Bogotá, Colombia, April 11, 2003.
- La selva antigua (The ancient forest). El Correo, Spain, April 16, 2003.
- Plants got roots. Geological Society UK, News, April 8, 2003.
- 52 millions. La Recherche, France, no. 365, June 2003, p. 19.
- Wyoming fossils change theories about extinction. by Dan Whipple, Casper Star-Tribune, March 16, 2003.
- I dinosauri non scomparvero per un cambiamento del clima. La Ricerca, Italy, January 24, 2003.
- Khí hậu và sự tuyệt chủng của khủng long. by Mạnh Trường, Theo ScienceDaily (available on Vietnam Net), January 16, 2003.
- Saurier-Sterben: Klimawandel scheidet als Ursache aus. Dinosaurier.org, January 2003.
- Dinosaurier überlebten Klimawandel. Netzeitung, Berlin, January 16, 2003.
- Report: Climate change didn't kill dinosaurs. by Dan Lewerenz, AP, January 16, 2003.
- Asteroid theory gains ground. by Katy Human, Daily Camera, January 16, 2003.
- Old leaves reveal a bug's life. by Jim Erickson, Rocky Mountain News, February 22, 2002.
- Prehistoric bugs also fell victim to impact. Cosmiverse Science News, February 25, 2002.
- Ancient insect-plant relationship persists through time. Smithsonian National Museum of Natural History Highlight, October, 2000.
- Beetle bites. Natural History 109:79, November, 2000.
- Sheridan, R. Plant evidence for the early radiation of beetles. New Jersey Paleontological Society Paleontograph, July 23, 2000.
- Milstein, M. Beetle bites reveal ancient alliance. Discovery.com News, July 18, 2000.
- Amos, J. Biting beetle gives away secrets. BBC News Online, July 16, 2000.
- "Culinary faithfulness" leads to discovery. Priroda, May, 2001 (in Russian, http://vivovoco.nns.ru/VV/NEWS/PRIRODA/2001/PR 05 01.HTM).
- Bite marks tell an ancient tale. Kew Magazine, winter 2000, p. 5.
- Monastersky, R., 1999. Warmer climate spurred ancient plant pests. Science News 155:407.
- Conova, S. Warm times mean more bugs. ABC News Online, June 29, 1999.
- Jaffe, M. What likes it hot? Plants and bugs. Philadelphia Inquirer, June 26, 1999.
- Siegel, L. Hotter climate is linked to insect attacks. The Salt Lake Tribune, June 25, 1999.
- Nibbling insects signal global warming. BBC News Online, June 24, 1999.
- Seife, C., 1999. To cook up new species, heat gently. New Scientist 163:16.
- Spice, B. Global warming 55 million years ago caused migration to North America. Pittsburgh Post-Gazette.
- Feuilles et pluies du passé (Leaves and ancient rainfall). La Recherche, France, January 5, 1998.

Penn State news and press releases:

- Five Penn State faculty elected to 2022 cohort of AAAS Fellows. 31 January 2023.
- A prehistoric forest grows in Brunei. 26 April 2022.
- From museum to laptop: Visual leaf library a new tool for identifying plants. 15 March 2022.
- Penn State undergraduate digs into the past through fossil leaves. (on Edward Spagnuolo) 14 April 2021.
- Leaf fossils show severe end-Cretaceous plant extinction in southern Argentina. 4 January 2021.
- New Argentine fossils uncover history of celebrated conifer group. 18 June 2020.
 - Argentine fossils take oak and beech family history far into Southern Hemisphere. 6 June 2019.

- Wilf named Paleontological Society Fellow for commitment to research, students. 18 January 2018.
- South American fossil tomatillos show nightshades evolved earlier than thought. 5 January 2017.
- Patagonian fossil leaves reveal rapid recovery from dinosaur extinction event. 7 November 2016.
- Leaf mysteries revealed through the computer's eye. 7 March 2016.
- Eat a paleo peach: first fossil peaches discovered in southwest China. 30 November 2015.
- Turn back the molecular clock, say Argentina's plant fossils. December 2, 2014.
- Leaf-mining insects destroyed with the dinosaurs, others quickly appeared. July 24, 2014.
- Leaf chewing links insect diversity in modern and ancient forests. May 2, 2014.
- Iconic Australasian trees found as fossils in South America. January 9, 2014.
- Buried leaves reveal precolonial eastern forests and guide stream restoration. November 13, 2013.
- Four from EMS among those to receive 2013 University awards for teaching, research and service.
 April 3, 2013.
- Six faculty members receive Atherton Award for Excellence in Teaching. March 21, 2013.
- Grant to fund exploration of fossil plants in Patagonia. October 28, 2009.
- Wilf named Distinguished Speaker by Paleontological Society. August 3, 2009.
- Ancient leaves point to climate change effect on insects. February 5, 2008.
- Insect predation sheds light on food web recovery after the dinosaur extinction. August 24, 2006.
- Wilf awarded Packard Fellowship for Science and Engineering. November 8, 2005.
- Fossil Patagonian plants show high insect feeding diversity 52 million years ago *Monday, June 20, 2005.*
- Fossils show extreme plant diversity in South America 50 million years ago. April 4, 2003.
- Fossil Plant and Insect Communities Key to Understanding Global Change. February 18, 2003.
- Dinosaurs Experienced Climate Changes Before K-T Collision. January 15, 2003.

MUSIC

- 2003 (May 25), WKCR-FM NY (89.9 FM, Columbia University) *SunRadio* Program, airing of re-edited interview with Sun Ra from March 1985, by P. Wilf, originally aired on WXPN-FM Philadelphia.
- 1988-1993 (and 2016 reunion): Intuitive Music Unit (IMU, cofounder with R. Moskowitz), four pieces, original, instrumental music, avant-blues-jazz-fusion. Wrote and performed over 30 original compositions. Over 100 performances; most notable venues included: Knitting Factory, (New York City); Painted Bride Art Center, Nexus Art Gallery, Group Motion Studio (Philadelphia).
- Intuitive Music Unit (P. Wilf, R. Moskowitz, E. Levin, S. Bergmann), 1992. Self-titled and financed cassette release of original compositions, ~45 minutes, ~300 copies distributed. Two tracks from this release also issued on *Manifestation III* CD, Awefull Records.
- 1992: Sound for art installation, "*The Remembering Cave*," University of Delaware, by MFA students Mary Ann Bucklin and Alyn Fenn.
- 1984-1987. Weekly program host for WXPN-FM, Philadelphia. Programs: *Blue Genesis Jazz, Jazz All Night, Aeolia* (20th century classical music). Included music programming, interviews with recording artists, and commentary.