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**Appointments**

2017: Visiting Scientist, Department of Biology, CNR-Florence, Italy

2007-present: Professor, Environmental Sciences and (jointly) Biology, University of Virginia,  
Charlottesville, VA

2011-2012: Senior International Scientist, Chinese Academy of Sciences

2007-2009: Director, Blandy Experimental Farm of the University of Virginia and State Arboretum  
of Virginia

2002: Hrdy Visiting Professor, Harvard University, Cambridge, MA

2001: Bullard Fellow, Harvard University, Cambridge, MA

1999-2004: Graduate Director, Ecology & Evolution Dept., State University of New York, Stony  
Brook, NY

1994-2011: Member, Graduate Program in Ecology and Evolution, State University of New York,  
Stony Brook, NY

1994-2007: Assistant, Associate (1999), and Full (2003) Professor, Ecology & Evolution Dept. and  
(by courtesy) Marine Sciences, State University of New York, Stony Brook, NY

1987-1988 Research Technician, USDA. Beltsville, MD. (lab of Dr. Calvin Spering).

**Education**

Post-Doctoral Fellow, National Research Council at NASA Ames, Moffett Field, CA, 1994

Ph. D., Biological Sciences, Stanford University. January, 1994.

A.B. with Honors, Biology, Harvard College. January, 1987.

**Selected Fellowships and Honors received**

Letter of Appreciation for Service, NSF-IOS, October, 2020

Re-Integrating Biology NSF Jumpstart, Invited Participant, December, 2019

CNR-Florence, Italy, Visiting Scientist, April-June 2017

AAAS Climate Science Fellow, 2011-2012

Senior Foreign Scientist, Chinese Academy of Sciences, 2011

Kavli Fellow (U.S. National Academy of Sciences), 2008-2009

NASA New Investigator Award, 1996

National Research Council Post-Doctoral Fellowship - November, 1993.

**Proposals in review**

NSF-DRL: ITEST-Innovative Technology Experiences for Students & Teachers: Middle  
Schoolers Out to Save the World: Helping the Earth Breathe. Submitted 13 August, 2021.

**Current Funded Projects**

Nelson Fund for Southeast Asian Studies. Seed Grant Proposal for Ecosystem Conservation at  
Tuanan Biological Station, Central Kalimantan, Indonesia. 10/21-9/23.

NSF-DISES: RCN-SWISLR - Saltwater Intrusion and Sea Level Rise in rural landscapes:  
Assessing Risk and Identifying Mitigation and Adaptation Options for Rural Coastal  
Plain Communities.

NSF-ENG: EAGER: Supported Hydroponics for a Resilient Fresh Food Supply in SIDS.  
Funding for 5/20-4/22

NSF-IOS: Mechanics and physiology in plant responses to drought. Funding for 6/20-5/23.

- NASA Goddard Seed Program. STELLA: System for Technology Education and Land Life Assessment. Funding for 11/19-10/21
- NASA Terrestrial Ecology. Dynamic Modeling of Ecosystem Processes and Services in North American Boreal Forests across the ABOVE Study Region: Using an Individual-based Model to Integrate Complex Feedbacks among Disturbances, Climate, and Biota for Optimal Land Management. Funding for 5/19-4/22.
- NSF Atmospheric Chemistry. Collaborative Research: Understanding ozone-ecosystem controls and feedbacks across landscapes through leaf- and canopy-scale measurements. Funded for 11/18-11/21

### **Previous Proposals Supported**

- Virginia Appalachian Prosperity Project (Commonwealth of Virginia). Collaborative Efforts in Economic Botany: Capitalizing on Rich Botanical Resources and Heritage in Appalachia. Funding for 5/19-12/20.
- Virginia 4-VA (Commonwealth of Virginia). Forest resilience in a warmer world: using novel technologies to advance interdisciplinary understanding of thermal controls over ecosystem functions at the Virginia Forest Laboratory. Funding for 5/19-4/20
- UVA CGI (Commonwealth of Virginia). Climate Resilience through Social Enterprise. Submitted 15 October 2018. Funding for 11/18-10/19.
- Commonwealth of Virginia ETF. Equipment Proposal for an Integrated Biosphere Atmosphere Exchange System for Research and Teaching. PI with 3 Co-I's. Funding for 11/18-10/19.
- 3-Cavs, University of Virginia. Climate Resilience in Small Island Developing States – Case Study in Dominica. 10/18-9/19.
- USDA BARC. Regulation of Photosynthesis and Growth in Rice. Funded 2018-2020 (ended in 2019 with the resignation of L. Ziska from USDA).
- Surdna Foundation. Designing a Community-Engaged Approach to Pre-Development Social Impact Analysis. 2017-2018. Co-Pi (Barbara Brown Wilson, PI).
- UVA-East Asia Center Nelson Faculty Award. 2017-2018. Biodiversity, ecosystem function, and resilience in Southeast Asian forests.
- UVA/FAPESP - SPRINT. 2017-2018. Isoprene emission and stress responses of tropical trees. funded February, 2017-2018
- U.S. Dept. of State - Young African Leaders Initiative 2014-2018 responsible for Environmental Component
- 4VA Collaborative Research Grant. 2017 Atmosphere-Forest Ozone Exchange at the Virginia Forest Lab: A University of Virginia-Virginia Tech Interdisciplinary Research Partnership.
- UVA Hart Family Award. 2017. (Eryn Campbell, undergraduate. Nitrous Oxide (N<sub>2</sub>O) Emissions from Soybean Plants: Quantifying and Distinguishing Emissions from Three Distinct Pathways.
- Miller Fund Proposal, Soil amendments and plant growth at Morven Farm. funded, June 2015.
- UVA- Resilience Research Initiative Proposal. Engendering Local Stewardship through Citizen Science at Friendship Court. 2014
- Chinese Academy of Sciences. Senior International Scientist Award. Stress physiology and the ecology of tropical trees. 2011-2013.
- NSF-NEON, Inc. “Relocatable Design Strategy – NEON Mid-Atlantic Domain”
- NSF-DEB Effects of kudzu (*Pueraria montana*) on nitrogen oxide fluxes. . 2007-2009
- NSF-DEB Effects of carbon dioxide and ozone on mercury cycling in forest ecosystems. 2007-2009
- DOE-BNL. Air Pollution Effects on Plant Function. 2003-2005
- NSF-IBN (Dissertation Improvement Grant). Carbon sources of isoprene. 2002-2003.
- SUNY-SB, Presidential Mini-Grant for Education. Developing an ecology and human affairs education module in SUNY-SB Greenhouse Facility. 2003

Andrew Mellon Foundation. Organismal aspects of ecosystem processes in tropical forests. 2001-2006.  
EPA-STAR. Ecosystem aspects of biological invasions. 2001-2004.  
DOE-BNL. Combined use of Radiotracers and Positron Emission Imaging in Understanding the Integrated Response of Plants to Environmental Stress. 2001-2003.  
NSF-DEB Development of a Functional Ecology Research and Training Lab. 1999-2002.  
DOE-BNL, Seed grant for research on N-deposition impacts on terrestrial ecology, 1999-2001.  
Department of Education Graduate Award in Area of National Need (GAANN) Graduate Training Grant, 1998-2001.  
Nature Conservancy/Mellon Foundation, Biological invasions in eastern New York. 1998-2000.  
NSF DEB, Effects of defoliation on isoprene emission, 1997-2001.  
NASA, Development and validation of a tropical isoprene emission model, 1996-2001.  
NSF ATM, Acquisition of an isotope ratio mass spectrometer, 1996.  
NASA, Monoterpene emissions from boreal forests, 1993-1996.

### **Manuscripts in review/revision**

Hu, L. Zi, H., **Lerdau, M.** and Wang, C. Differential responses of soil microbial community and enzyme activities to N and P addition rates in an alpine meadow. Submitted to *Basic and Applied Ecology* on September 30, 2021.

### **Publications**

Zhang, H., Shugart, H., Wang, B., and **Lerdau, M.** The significance of aggregation methods in functional group modelling. Accepted at *Forests* on 8 November, 2021.  
<https://www.mdpi.com/1999-4907/12/11/1560/pdf>

McGlynn, D., Barry, L., **Lerdau, M.**, Pusede, S., and Isaacman-VanWertz, G. (2021) Variability in the composition of biogenic volatile organic compounds in a southeastern US forest and their role in atmospheric reactivity. *Atmospheric Chemistry and Physics*.  
<https://doi.org/10.5194/acp-2021-416>.

Monson, R., Trowbridge, A., Lindroth, R. and **Lerdau, M.** (2021) Coordinated resource allocation to plant growth-defense trade-offs. *New Phytologist*. doi:10.1111/NPH.17773.

Chen, K., Hu, L., Wang, C., Yang, W., Zi, H., **Lerdau, M.** (2021) Herbaceous plants influence bacterial communities, while shrubs influence fungal communities in subalpine coniferous forests. *Forest Ecology and Management*. <https://doi.org/10.1016/j.foreco.2021.119656>.

Brosi, B., Hall, E., Inouye, B., **Lerdau, M.** (2021) Trade-offs among resilience, robustness, and performance and how we might study them. *Journal of Integrative and Comparative Biology*, <https://doi.org/10.1093/icb/ibab178>.

Hu, L., Zi, H., Xueping, L., **Lerdau, M.**, Wang, C. (2021) Root dynamics along a restoration chronosequence of revegetated grassland on the degraded alpine meadow on Qinghai-Tibetan Plateau, China. *Land Degradation and Development*. 13: 3561-3572.  
<https://doi.org/10.1002/ldr.3954>.

Koong Y, Smith, J., Jablonski, A., Tatham, E., Scanlon, T., Lerdau, M., Novick, K., Yang, X. (2020). High heterogeneity in canopy temperature among co-occurring tree species in a temperate forest. *JGR-Biogeosciences* doi: 10.1029/2020JG005892. November, 2020.

Cook B, Haverkamp A, Hansson B, Roulston T, Lerdau M, Knaden M. (2020) Pollination in the Anthropocene: a Moth Can Learn Ozone-Altered Floral Blends. *Journal of Chemical Ecology*. 46 (9). <https://doi.org/10.1007/s10886-020-01211-4>

Helm, L., Yang, X., and **Lerdau, M.** (2020) Solar-induced chlorophyll fluorescence and short-term photosynthetic response to drought. *Ecological Applications*.  
<https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1002/eap.2101>

Shugart, H., Foster, A., Wang, B., Druckenbrod, D. Ma, J., **Lerdau, M.**, Saatchi, S., Yang, X., Yan, X. Gap Models across Micro- to Mega-scales of Time and Space: Examples of Tansley's Ecosystem Concept. (2020) *Forest Ecosystems*.  
<https://forestecosyst.springeropen.com/articles/10.1186/s40663-020-00225-4>

- Hu, L., Zi, H., Wu, P., Wang, Y., **Lerdau, M.**, Wu, W., and Wang, C. 2019. Soil bacterial communities re-vegetated grasslands with *Elymus natans* are largely influenced by soil pH and total phosphorus across restoration time. *Land Degradation & Development*. 30: 2243-2256. <https://doi.org/10.1002/ldr.3414>
- Wang, B., Shugart, H., and **Lerdau, M.** 2019. Shining light on radiative impacts. *Nature Geoscience*. <https://doi.org/10.1038/s41561-019-0413-8>.
- Wang, B., Brewer, P., Shugart, H., **Lerdau, M.**, Allison, S. 2019. Building bottom-up aggregate-based models (ABMs) in soil systems with a view of aggregates as biogeochemical reactors. *Global Change Biology*. <https://doi.org/10.1111/gcb.14684>
- Lerdau, M.** 2019. A Beauty of an Introduction to an Idea of Beauty [review of *The Evolution of Beauty*, by Richard Prum.]. *Birding*. 50.2: 65-66.
- Demetillo, M., Anderson, J., Geddes, J., Yang, X., Najacht, E., Herrera, S., Kabasares, K., Kotsakis, A., **Lerdau, M.**, and Pusede, S. 2019. Observing drought influences on ozone air pollution. *Environmental Science and Technology*. DOI: 10.1021/acs.est.8b04852 (discussed in *Science*, Plautz, J. 2019. Drought is not just about water. It affects air pollution, too. <https://www.sciencemag.org/news/2019/04/drought-not-just-about-water-it-affects-air-pollution-too>)
- Cannon, C. and **M. Lerdau**. 2019. Demography and destiny: the syngameon in hyperdiverse systems. *Proceedings of the National Academy of Sciences*. 116 (17) 8105. [doi.org/10.1073/pnas.1902040116](https://doi.org/10.1073/pnas.1902040116)
- Wang, B., Brewer, P., Shugart, H., **Lerdau, M.**, Allison, S. 2019. Soil aggregates as biogeochemical reactors and implications for soil-atmosphere exchange of greenhouse gases. *Global Change Biology*. 25: 373-385.
- Wang, B., J. Shuman, H., Shugart, and **M. Lerdau**. 2018. Biodiversity matters in feedbacks between climate change and air quality: a study using an individual-based model. *Ecological Applications*. 28: 1223-1231. DOI:10.1002/eap.1721
- Zi HB, Wang CT, Wang GX, Wu PF, **Lerdau M**, Ade LJ, Hu L. 2018. Response of soil bacterial community and enzyme activity to experimental warming of an alpine meadow. *European Journal of Soil Science*. 69: 429-438 DOI: 10.1111/ejss.12547.
- Ade, L., Hu, L., Zi, H. Wang, C., **Lerdau, M.**, and Dong, S. 2018. Effect of snowpack on the soil bacteria of alpine meadows in the Qinghai-Tibetan Plateau of China. *Catena*. 164: 13-22.
- Pan, J., Huang, D. Gui Z., Zhang, H., Xinyu, X., Zengfeng, M., Gao, S., **Lerdau, M.**, Chu, C., Li, L. 2018. Overexpression of microRNA408 enhances photosynthesis, growth, and seed yield in diverse plants. *Journal of Integrative Plant Biology*. doi: 10.1111/jipb.12634
- Hu L., Zi HB, Ade LJ, **Lerdau M**, Wang CT. 2017. Effects of zokors (*Myospalax baileyi*) on plant, on abiotic and biotic soil characteristic of an alpine meadow. *Ecological Engineering*. 103:95-105.
- Wang B., Shugart H., **Lerdau M.** Sensitivity of global greenhouse gases budget to tropospheric ozone pollution. 2017 *Environmental Research Letters*. 12(8): 084001.
- Xu S., He Z., Zhang Z., Gui Z., Guo W., Lyu H., Li J., Yang., Du Z., Huang Y., Zhou R., Zhong C., Boufford DE., **Lerdau M.**, Wu C-I, Duke NC. 2017. The International Mangrove Consortium, and Shi S. The origin, diversification and adaptation of a major mangrove clade (Rhizophoraceae) revealed by whole genome sequencing. *National Science Review*. 4:721-734.
- Wang, C., Xinquan Z., Hongbiao Z., Luji A., Lei H., Genxu W., **Lerdau M.**, The effect of simulated warming on root dynamics and soil microbial community in an alpine meadow of the Qinghai-Tibet Plateau. 2017. *Applied Soil Ecology*. 116:30-41.
- Aneece, I., Epstein, H., and **Lerdau, M.** 2017. Correlating species and spectral diversities using hyperspectral remote sensing in early-successional fields. *Ecology and Evolution*. 7:3475-3488.
- Wang, B., Shugart, H., **Lerdau, M.** (2017). An individual-based model of forest volatile organic compound emissions—UVAFME-VOC v1.0. *Ecological Modelling*. 350: 69-78.

- Wang B., **Lerdau M**, He Y., 2017. Widespread production of non-microbial greenhouse gases in soils. *Global Change Biology*. 23: 4472-4482
- Wang CT, Wang G, Wang, Y, Zi, H, **Lerdau, M**, Liu, W. (2017). Effects of long-term experimental warming on plant community properties and soil microbial community composition in an alpine meadow. *Israel Journal of Ecology and Evolution*. <http://dx.doi.org/10.1080/15659801.2017.1281201>
- Lerdau, M**. "Minding (and bridging) the gap between evolutionary ecology and atmospheric biogeochemistry in a study of plant pollinator behaviour. (2016) *New Phytologist*. DOI: 10.1111/nph.13752
- Wang, B., Schuman, J., Shugart, H., and **Lerdau, M**. (2016). Forests and ozone: productivity, carbon storage, and feedbacks. *Scientific Reports* **6**, Article number: 22133. doi:10.1038/srep22133. (discussed in *Science*, Kollipara, P. 2017. Smog may not hurt a forest's carbon sucking ability, contrary to conventional wisdom. doi:10.1126/science.aaf9887)
- Cannon, C. and **Lerdau, M**. Variable mating behaviors and the maintenance of tropical biodiversity. (2015) *Frontiers in Genetics*. doi: 10.3389/fgene.2015.00183
- Lerdau, M. (2014) The Gaia hypothesis: Science on a pagan planet. *Quarterly Review of Biology*. 89: 253-255.
- Hickman, J. and **M. Lerdau**. (2013) Biogeochemical impacts of the northward expansion of kudzu under climate change: the importance of ecological context. *Ecosphere*: 4(10): 121. <http://dx.doi.org/10.1890/ES13-00142.1>.
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- Gotsch SG, Powers JS, **Lerdau MT** (2010) Leaf traits and water relations of 12 evergreen species in Costa Rican wet and dry forests: patterns of intra-specific variation across forests and seasons. *Plant Ecology*. 211: 133-146.
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- Hickman, J., S. Wu, L. Mickley, and **M. Lerdau** (2010) Kudzu (*Pueraria montana*) invasion doubles emissions of nitric oxide and increases ozone pollution. *Proceedings National Academy of Sciences*. 107:10115-10119
- Natali, S., S. Sañudo-Wilhelmy, and **M. Lerdau**. (2009) Plant and soil mediation of elevated CO<sub>2</sub> impacts on trace metals. *Ecosystems*. DOI: 10.1007/s10021-009-9251-7
- Powers, J., 22 co-authors, and **M. Lerdau** [final author] (2009) Decomposition in tropical forests: a pan-tropical study of the effects of litter type, litter placement and mesofaunal exclusion across a precipitation gradient. *Journal of Ecology*. doi: 10.1111/j.1365-2745.2009.01515.x

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- Natali S., R. Norby, H. Zhang, A. Finzi, S. Sañudo-Wilhelmy, and **M. Lerdau** (2008) Increased mercury in forest soils under elevated carbon dioxide. *Oecologia*. 158: 343-354.
- Jardine K., Karl T., Guenther A., Harley P., **Lerdau M.**, Mak J. (2008) Plant physiological and environmental controls over the exchange of acetaldehyde between plant canopies and the atmosphere. *Biogeosciences* 5, 1559–1572,
- Gurevitch, J., T. Howard, I. Ashton, E. Leger, K. Howe, E. Woo, and **M. Lerdau**. (2008) Effects of experimental manipulation of light and nutrients on establishment of seedlings of native and invasive woody species in Long Island, NY forests. *Biological Invasions*. 10: 821-831
- Ashton, I. and **M. Lerdau**. (2008) Tolerance to herbivory, and not resistance, may explain differential success of invasive, naturalized, and native North American temperate vines. *Diversity and Distributions*. DOI: 10.1111/j.1472-4642.2007.00425.x.
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- Funk, J., C. Jones, **M. Lerdau**. (2007) Leaf- and shoot-level plasticity in response to varying nutrient and water availability in *Populus deltoides*. *Tree Physiology*. 27: 1731-1739.
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- Wang, J., R. Bras, **M. Lerdau**, G. Salvucci. (2007) A maximum principle of transpiration. *Journal Geophysical Research-Biogeosciences*. G03010, doi:10.1029/2006JG000255.
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- Lerdau, M.** (1993) Formal equivalence among resource allocation models: what is the appropriate currency? *Functional Ecology* 7: 507-508.
- Lerdau, M.T.** and Penuelas, J. (1993) Terpenes in plants: links between the biosphere and the atmosphere. *Mundo Científico* 13:60-64 (in Spanish).
- Lerdau, M.** (1992) Future discounts and resource allocation in plants. *Functional Ecology* 6:371-375.
- Lerdau, M.**, Holbrook, N.M., Mooney, H.A., Rich, P.M., Whitbeck, J.L. (1992) Seasonal patterns of acid fluctuations and resource storage in the arborescent cactus *Opuntia excelsa* in relation to light availability and size. *Oecologia*. 92:166-171.
- Lerdau, M.** (1991) Plant function and biogenic terpene emission. IN: *Trace Gas Emissions by Plants* (Sharkey, T. et al. eds.). Academic Press, San Diego. pp. 121-134.
- Bazzaz, F. and **M. Lerdau** (1990) Response of seedlings of tropical trees to cool temperatures predicted by 'Nuclear Winter' scenarios. *Environmental Conservation* 17:337-340.

#### Selected Workshops Organized

- Air Pollution and Climate Change.** NASA-JPL/CalTech. Pasadena, CA. Lead organizer along with J. Neu of JPL/CalTech., January, 2019.
- Development of Global Network of Scientists working on Fagaceae.** UC Davis & Morton Arboretum. Co-organizer (C. Cannon of Morton Arboretum Lead organizer). October, 2018
- Reducing Sexual Harassment at the University of Virginia.** University of Virginia. Charlottesville, VA. Co-organizer (L. Columbus lead organizer). October, 2018.

#### Selected Invited Lectures

- University of the Magallanes, Chile.** Ecosystem function and insect-borne disease. December, 2022. (invited)
- Harvard University.** Panelist for virtual discussion on "COP26: Summary, Synthesis, and Future Actions." November, 2021. (invited)
- University of North Carolina,** Department of Biology. September, 2021.
- National Academies of Science, Engineering, and Medicine,** Roundtable on Open Science, invited speaker. May, 2021
- Curry School of Education, University of Virginia,** Ecological Sustainability in a Classroom Context, September, 2020.
- National Science Foundation.** Re-Integrating Biology Conference, December, 2019.
- NASA Earth System Science. ABoVE meeting.** Invited poster on linking Ecological Process with Ecosystem Service Models. May, 2019
- California Institute of Technology/NASA-JPL,** Air Pollution and Climate Change., January, 2019
- University of Virginia,** East Asian Studies Faculty Forum. November, 2018.
- University of California Davis,** Annual Meeting of the International Oak Society. October, 2018.
- Duke University,** Center for International Studies and Nicholas School of the Environment. Durham, NC, September, 2018.
- Virginia Master Gardeners,** Charlottesville, VA. September, 2018.
- Mellon Foundation Eckerd College Interdisciplinary Speaker,** Tampa, FL., March, 2018
- United States Department of Agriculture,** Beltsville, MD. December, 2017.
- National Academy Sciences** Long-term challenges in biosphere/atmosphere interactions, Beckman Center, Irvine, CA. November, 2017.

CNR-Florence, Italy, May, 2017.

University of California, Irvine, Earth System Science Department, March, 2016

University of Oklahoma, Biology Department, October, 2015

Max Plank Institute for Chemical Ecology, February, 2015

NASA Jet Propulsion Lab, Earth Science, April, 2014

Microsoft Research, Biology and Ecology, Cambridge, England, March, 2014

City University of New York, Earth and Environmental Sciences, September, 2013

Harvard College, Earth and Planetary Sciences, May, 2013

University of California, Irvine, Earth System Sciences, May 2013

University of Arizona, Intercollege, May, 2012

Franklin & Marshall College, Biology Department, April, 2012

University of Arizona, Ecology and Evolutionary Biology, April, 2012

University of Georgia, Botany Department, February, 2012

### Service (selected)

#### Panel Service:

NSF GRFP Panel 2021-22; USDA-MultiCultural Scholars Program Panel, April-2021; NSF IEP Panel, 2020; NSF CNH2-Panel, 2020; NEON Biogeochemistry Working Group, 2019-present; US DOE Young Investigator, 2016; US NSF-IOS, 2015 (invited but declined). Georgian National Academy of Sciences Review Panel, 2009-2011; European Union Science Foundation External Expert, 2008-2013. US-NSF-IOS, US ICOB, 2013. US NSF GK-12, 2008. US NSF Ecological & Evolutionary Physiology, 2000, 2006. US NASA LBA, 2005. US NASA EOS-IDS, 1999. US NSF-USDA-NASA-DOE TECO, 1998.

#### Proposal Reviewer Service:

Israel Science Foundation; ETH (Swiss) Research Commission; NSF Ecological and Evolutionary Physiology, NSF Ecology; NSF Ecosystems, NSF Biogeochemistry, NSF Atmospheric Chemistry, DOE Global Change (NIGEC), NASA Pre-Doctoral Fellowship, NASA Atmospheric Chemistry, NERC (Great Britain); NRF (South Africa), NRC (New Zealand), GNSF (Greece)

#### Promotion and Tenure review

Promotion to Associate Professor with Tenure, Univ. California System (2X)

Promotion to Senior Scientist rank evaluation for NASA

Promotion to Full Professor rank evaluation for small college in Oregon

#### Editorial Service:

Ecological Society of America, Search Committee for Editor in Chief for *Ecological Monographs*.

Ecological Society of America, Publications Committee member, 2020-present (Chair of Data Procedures Subcommittee)

Editorial Board, *Northeastern Naturalist*, 2020-present

Editorial Board, *Ecology*, 2020-present

Guest Editor, *Northeastern Naturalist*. 2020-present

Guest Editor, *Proceedings of the National Academy of Sciences* [USA]. 2017

Guest Subject Editor, *Ecological Applications*, 2015-present

Associate Editor, *Biology Letters*, 2014-present

Editorial Board, University of Virginia Press. 2009-2012

Associate Editor, *Journal of Geophysical Research-Biogeosciences*. 2005-2010

Associate Editor, *Oecologia*. 2006-2014

Review Editor-in-Chief, *Oecologia*. 2009-2010

Editorial Review Board, *Quarterly Review of Biology*. 1995-2007

Editor (with Tom Sharkey), special feature in *Ecological Applications* November, 1999.

Manuscript reviewer for:

*African Journal of Biotechnology; Agricultural and Forest Meteorology; Agriculture, Ecosystems, and Environment; American Journal of Botany; American Midland Naturalist; Annals of Botany; American Naturalist; Atmospheric Chemistry and Physics; Atmospheric Environment; Atmospheric Measurement and Techniques; Biogeochemistry; Biogeosciences; Biology Letters; Biotropica; Canadian Journal of Forest Research; Chemosphere; Ecological Indicators; Ecological Monographs; Ecology; Ecology and Evolution; Environmental and Experimental Botany; Environmental Pollution; Environmental Science & Technology; Functional Ecology; Genetics; Geoderma Geophysical Research Letters; Global Biogeochemical Cycles; Global Change Biology; Journal of Chemical Ecology; Journal of Geophysical Research-Atmospheres; ; Journal of Geophysical Research-Biogeosciences; Journal of Plant Growth and Nutrition; Journal of Tropical Ecology; Land Degradation and Development; Nature; Oecologia; New Phytologist; Northeastern Naturalist; Physiologica Plantarum; Plant, Cell and Environment; Plant Ecology; Plant Physiology; Plant and Soil; Planta; PLOS One; Science; The Plant Cell; Proceedings of the National Academy of Sciences; Science of the Anthropocene; Science of the Total Environment; Tree Physiology; Trees: Structure and Function; Trends in Ecology and Evolution; Trends in Plant Sciences; Urban Forestry and Urban Greening; Vegetatio*

#### College & University Service

Provost's Working Group on Faculty Evaluation, 2020-2021  
 Global Infectious Disease Institute, 2018-present  
 Committee on Faculty Rules, 2018-present, Chair 2019-20, 2020-present  
 Nelson Fund Committee, 2018-2021 (Chair 2019-20s)  
 Advisory Committee, Directors of Diversity and Inclusion, 2019-2020  
 Faculty Mentor, GradSTAR Faculty Student Mentoring Program, OAAA, 2017-present  
 Steering Committee Chair, Directors of Diversity and Inclusion, 2018-2019  
 Member, Southeast Asia Studies Committee, 2015-present  
 Member, Sustainability @UVA Committee, 2015-present  
 Faculty Mentor, Morven Kitchen Garden, 2015-present  
 Sexual Misconduct Hearing Board member, 2013-present (transferred to new format and name in September, 2015)  
 Member, UVa Food Collaborative Steering Committee, 2010-present  
 Executive Committee member, Center for Latin American and Inter-American Studies, 2007-2010  
 Member, Dean's Committee on Graduate Program Evaluation, 2009-2010.  
 Member, Dean's Committee Asian Scientific Exchange, 2010-2014  
 Science Projects Advisor, Volunteers for Westhaven Community Afterschool Program, 2010-present  
 Morven Summer Institute Academic Board, 2011-present  
 International Residential College Faculty Fellow, 2011-present  
 Office of African American Affairs Mentor, 2012-present

#### Significant Departmental Service

Promotion and Tenure Committee (**Chair**) for Sally Pusede  
 Admissions Committee Chair, 2020-2021  
 Member, Search Committee for Hydroclimatology position, 2019-2020  
 Department Director of Diversity and Inclusion, 2017-2020  
 Member, Search Committee for two Geoscience positions. 2017-2018  
 Member, Third Year Review Committee for Assistant Professor Sally Pusede. 2018  
**Chair**, Renewal and Promotion Committee for Research Associate Professor, David Carr, 2015-2016.

Promotion Committee (**Chair**) for Associate Professor Deborah Lawrence (2011-12)  
Renewal Review Committee (member) for Research Associate Professor Robert Swap, 2007  
Renewal Review Committee (**Chair**) for Research Associate Professor Dave Carr (2007)  
Department Space Committee (member) for Environmental Science 2007-present  
Department Self-Study Committee (member) 2009-2011  
Promotion Committee (member) for Associate Professor Karen McGlathery (2008-09)  
Renewal Review Committee (member) for Assistant Professor Matt Reidenbach (2009-10)  
Renewal & Promotion Review Committee (informal member) for Research Assistant  
Professor T'ai Roulston [service conducted before beginning position at UVA]

#### Community Service

Guest speaker and Distance Resource Scientist on ecosystems and climate change to The Urban Academy, a New York City Public School, Fall, 2020.  
Science Coordinator for the Westhaven Community Afterschool Program, an afterschool enrichment program for children from traditionally under-served communities. 2011-2020  
Albemarle County (VA) Natural History Board, *pro bono* work for Albemarle County on issues relating to conservation and ecosystem services. 2014-2018.  
Mentor for minority undergraduates (SEEDS) at the Ecological Society of America Annual Meeting. 1999-2002.

#### Post-Docs and Students supervised

##### Post-Doctoral Fellows

Paul Brewer (2017-2020)  
Alycia Crall (2010-2012), next position: Research Scientist, University of Virginia Medical School.  
Megan McGroddy (2008-2010), next position: Research Scientist, University of Virginia;  
Beth Leger (2004-2006), next position: Assistant Professor, University of Nevada, Reno;  
Kate Howe (2002-2004), next position State Environmental Biologist for Indiana;  
Jennifer Powers (2001-2004), next position: NSF ADVANCE Fellow, Univ. Minnesota;  
Laura Hyatt (2000-2002) next position: Assistant Professor, Rider College;  
Tim Howard (1998-2000), next position: Staff Scientist, The Nature Conservancy, Albany, NY;

##### Ph. D. Students and next position[np]

Allison Wallace (1997, np: Assistant Professor, Minnesota State University Morehead)  
Heather Throop (2002, np: NOAA Global Change Fellow, Univ. Arizona),  
Dennis Gray (2003, np: NASA Exobiology Fellow, Univ. Connecticut),  
Nina Theis (2003, np: Putnam Fellow, Harvard University),  
Jennifer Funk (2004, np: ESA/NPS Fellow, Stanford University),  
Isabel Ashton (2005, np: Mellon Fellow, Univ. California, Irvine),  
Sybil Gotsch (2006, np: Post-Doc, NC. State Univ.),  
Sue Natali (2008, np: Post-Doc, Univ. Florida),  
Jonathan Hickman (2009, np: Fellow, Earth Institute, Columbia University),  
Ramona Walls (2009, np: Post-Doc NY Bot. Garden),  
Patty Oikawa (2011, np: Post-Doc UC Riverside),  
Stephen Chan (2013, np: Post-Doc Oregon State University),  
Bin Wang (2017, np: Post-Doc UC Irvine),  
Brynn Cook (2019, np: California Council on Science and Technology, Fellow),  
Andrew Jablonski (present)

Master's Students

Bridget Cimaglia (1995),  
Jenny Carroll (2002)  
Catherine Vincent (2019)

Undergraduate Students

Anthony Caravello, 1995-1997 (next position, MD student at Columbia Univ.)  
Megan O'Rourke, 2000-2002 (next position, PhD student at Cornell Univ.)  
Leslie Gonzalez, 2001-2003 (next position, Master's student at Western Washington Univ.)  
Clara Pelaez 2004-2005 (next position, MD student at SUNY Downstate)  
Cristina Cornell (2008-2010)  
Adrianna Forster (2010-2011) next position, PhD student at Univ. of Virginia  
Julia Dunville (2010-2012)  
Ed Schrom, (2013-2015), next position, PhD student at Princeton Univ.  
Levi Helm (2016-2018), next position, PhD student at Arizona State Univ.  
Carson Lambert (2019-2020), next position, MS student at Duke Univ.  
Luciana Codella (2018-2020, co-advised with H. Shugart)  
Ross Brown (2020-present)

Educational ActivitiesClasses

Introductory Biology [served as Course Director for this 600-person class]  
General Botany  
General Ecology  
Global Ecology in a Changing World,  
Freshman Seminars: Scientific Thinking, Environmental Issues and Societal Responses  
Graduate Ecology  
Graduate Seminars: Trace Gas Exchange, Macroecology, Social Implications of Ecological Processes, Plant Nutrition  
The Elemental Plant  
Ecology of Land Use  
Plant Ecophysiology  
Agroecology  
Terrestrial Ecosystems (co-taught with Howie Epstein)  
Biosphere/Atmosphere Interactions (co-taught with Sally Pusede)  
Food and nutrition in a changing world  
Food: Science and Sustainability  
Conservation Ecology

Curricular Activities

## UNDERGRADUATE

Co-founder of Environmental Studies Undergraduate Major at SUNY-SB 1997  
Co-author of Environmental Studies Undergraduate Major Curriculum at SUNY-SB.  
1997

## GRADUATE

Co-Chair and Ecology and Evolution Representative to Environmental Science  
Doctoral Program Committee. 2003-2006  
Co-Chair and Ecology and Evolution Representative to Environmental Science  
Research Consortium at SUNY-SB. 2004-2006

## HIGH SCHOOL

Academic Ecologist at TERC workshop for High School Biology Teachers. 1995  
Outside Advisor to Horace Mann School (in Bronx, NY) AP Environmental Studies  
and AP Biology Classes. 1995-2001.