

Alexandra G. Ponette-González

Department of City & Metropolitan Planning
Natural History Museum of Utah, University of Utah

E-mail: alexandra.ponette@utah.edu

Web: <https://ponettelab.cargo.site>

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Research Interests

Broadly, I am interested in the nexus between science and society: how science can be applied to sustainability challenges and how community needs and decision-making can drive scientific inquiry. Specifically, my research focuses on interactions between air pollution (black carbon, fire, dust) and ecosystems, often in cities and in forests. I combine quantitative and qualitative approaches, field, lab, and modeling tools to ask and answer questions with relevance for environmental planning and policymaking. I also aim to elucidate how planning tools and policies shape the environment in which we live.

Education

- Ph.D. Forest Ecology, Yale School of Forestry & Environmental Studies, 2009
Dissertation: *Land Cover Effects on Water Fluxes and Atmospheric Deposition across a Mexican Tropical Montane Landscape*, Advisors: Lisa M. Curran & Kathleen C. Weathers
- M.Phil. Forest Ecology, Yale School of Forestry & Environmental Studies, 2004
- M.A. Geography, University of Texas at Austin, 2002
Thesis: *Living on the Margin: An Economic Analysis of Traditional Shade Coffee Cultivation by the Huastec Maya of Northeastern Mexico*, Advisor: William E. Doolittle
- B.A. Psychology with honors (Magna Cum Laude), United States International University, Mexico City, 1997

Professional Employment

- 2023-present Associate Professor, Department of City & Metropolitan Planning
Curator of Urban Ecology, Natural History Museum of Utah, University of Utah
- 2023-present Affiliate, Global Change & Sustainability Center, University of Utah
- 2022 (05-12) Full Professor, Department of Geography and the Environment, University of North Texas
- 2017-2022 Associate Professor, Department of Geography and the Environment, University of North Texas
- 2011-2017 Assistant Professor, Department of Geography and the Environment, University of North Texas
- 2009-2011 National Science Foundation Minority Postdoctoral Research Fellow
- 2003-2004 Teaching Fellow, Yale School of Forestry & Environmental Studies

2002 Research Assistant, Department of Geography, University of Texas at Austin
2000-2002 Teaching Assistant, Department of Geography, University of Texas at Austin

Honors and Awards

Member , E.P.A. Clean Air Scientific Advisory Committee	2021-present
Recipient , UNT Ulys & Vera Knight Faculty Mentor Award	2022
Member , American Association of Geographers Honors Committee B	2021-204
Recipient , UNT CLASS Outstanding Researcher Award	2021
Nominee, UNT Ulys & Vera Knight Faculty Mentor Award	2020
Finalist, UNT CLASS Outstanding Researcher Award	2020
Nominee, UNT CLASS Outstanding Researcher Award	2019
Finalist, UNT CLASS Teaching Award	2018
Nominee, UNT 'Fessor Graham Teaching Award (Student Government Association)	2018
Recipient , National Science Foundation CAREER Award	2016-2022
Recipient , UNT Early Career Award for Research and Creativity	2017
Nominee, UNT 'Fessor Graham Teaching Award (Student Government Association)	2017
Most Appreciated Professor, UNT Geography and the Environment	2017
Most Appreciated Professor, UNT Geography	2014
Participant , Stable Isotopes in the Paleoenvironment Workshop	2011
Participant , Women Evolving the Biological Sciences	2010
Scholar , Dissertations Initiative for the Advancement of Climate Change Research V	2010
Participant , Pan-American Advanced Studies Institute, Interdisciplinary Studies on Global Climate Change, Ecology & Management of Tropical Montane Ecosystems	2010

Publications

To date, my research has resulted in 49 peer-reviewed publications. I publish in high-impact journals such as *Frontiers in Ecology and the Environment*, *Environmental Science & Technology*, *BioScience*, and *Global Change Biology*.

Peer-Reviewed (*student/postdoc when written; g = grant funded)

[g] 49. *Burke, M., E. Marín-Spiotta, **A.G. Ponette-González**. Black carbon in urban soils: Land use and climate drive variation at the surface. 2024. *Carbon Balance and Management* 19, 9.

[g] 48. *Daniels, J., L. Liang, K.B. Benedict, J. Brahney, *R. Rangel, K.C. Weathers, **A.G. Ponette-González**. 2024. Satellite-based aerosol optical depth estimates over the continental U.S. during the 2020 wildfire season: roles of smoke and land cover. *Science of the Total Environment* 921, 171122.

47. Anderson, K., S. Tooth, D. Kim, L.M. Resler, D. Schillereff, J.W. Williams, D. Rocchini, **A.G. Ponette- González**, N. Kuhn, J.V. Brian. 2024. A horizon scan for novel and impactful areas of physical geography research in 2023 and beyond. *Progress in Physical Geography* 48, 3-23.

[g] 46. *Kang, K.A., E. Marín-Spiotta, Elliot Vaughan, C. Reid Ferring, **A.G. Ponette-González**. 2023. Soil black carbon increases under urban trees with road density and time: Opportunity hotspots for carbon storage in urban ecosystems. *Environmental Management*. <https://doi.org/10.1007/s00267-023-01911-z>.

45. *Grider, A., **A.G. Ponette-González**, R. Heindel. 2023. Calcium and ammonium now control the pH of wet and bulk deposition in Ohio, U.S. *Atmospheric Environment* 310, 119986.

[g] 44. *Elderbrock E., **A.G. Ponette-González**, *J.E. Rindy, K.C. Weathers, J. Lee, Y. Ko. 2023. Modeling black carbon removal by city trees: implications for urban forest planning. *Urban Forestry & Urban Greening* 86: 128013

43. Van Stan, J.T., S.T. Allen, D.P. Aubrey, Z.C. Berry, M. Biddick, A.M.J. Coenders-Gerrits, P. Giordani, S.G. Gotsch, E.D. Gutmann, Y. Kuzyakov, D. Magyar, V.S.A. Mella, K.E. Mueller, **A.G. Ponette-González**, P. Porada, C.E. Rosenfeld, J. Simmons, K.R. Sridhar, A. Stubbins, T. Swanson. 2023. Shower thoughts: Why scientists should spend more time in the rain. *BioScience* 73: 441–452.

[g] 42. *Byers, T.A., J.E. Manuel, **A.G. Ponette-González**, T.E. Gill, G. Glass. 2023. Analysis of rain-deposited dust on polysulfone membranes using proton-induced X-ray emission spectroscopy. *Microchemical Journal* 192: 108928.

[g] 41. *Ellis, J., **A.G. Ponette-González**, M.J. Fry, J.A. Johnson. 2023. Reduced reflectance and altered color: The cost of external particulate matter accumulation on urban rock pigeon feathers. *Frontiers in Ecology and Evolution* 11: 946624.

[g] 40. **Ponette-González, A.G.**, *D. Chen, *E. Elderbrock, Y. Ko, J. Lee, *J.E. Rindy, *T.E. Barrett, *B.W. Luce, K.C. Weathers. 2022. Urban edge trees: urban form and meteorology drive elemental carbon deposition to canopies and soils. *Environmental Pollution* 314: 120197.

[g] 39. **Ponette-González, A.G.**, *H. Lewis, B. Henderson, G. Piñeiro, D. Carnelos, K.C. Weathers, D. Schwede. 2022. Wet nitrogen (N) deposition to urban Latin America: filling in the gaps with GEOS-Chem. *Atmospheric Environment* 278: 119095, <https://doi.org/10.1016/j.atmosenv.2022.119095>

38. **Ponette-González, A.G.** 2021. Accumulator, transporter, substrate, and reactor: Multidimensional perspectives and approaches to the study of bark. *Frontiers in Forests and Global Change* 4: 716557, <https://doi.org/10.3389/ffgc.2021.716557>

[g] 37. LaFevor, M.C., **A.G. Ponette-González**, R. Larson, L. M. Mungai. 2021. Spatial targeting of agricultural support measures: Indicator-based assessment of coverages and leakages. *Land* 10: 740, <https://doi.org/10.3390/land10070740>

[g] 36. Van Stan II, J.T., **A.G. Ponette-González**, T. Swanson, K.C. Weathers. 2021. Throughfall and stemflow are major hydrologic highways for particulate traffic through tree canopies. (JVS and AGPG contributed equally and are listed as **joint first authors**). *Frontiers in Ecology and the Environment* 19: 404-410, doi: 10.1002/fee.2360

35. **Ponette-González, A.G.**, *M.L. Green, *J. McCullars, L. Gough. 2021. Ambient urban N deposition drives increased biomass and total plant N in two native prairie grass species in the US Southern Great Plains. *PLoS ONE*, <https://doi.org/10.1371/journal.pone.0251089>. (AGPG and MLG contributed equally and are listed as **joint first authors**).

[g] 34. Saad, S.I., J. Mota de Silva, **A.G. Ponette-González**, M. Naves Silva, H.R. da Rocha. 2021. Modeling the on-site and off-site benefits of Atlantic Forest conservation in a Brazilian watershed. *Ecosystem Services* 48: 101260.

[g] 33. *Pitre, C., **A.G. Ponette-González**, *J.E. Rindy, *A. Lee, D. Doherty, M. Fry, J. Johnson. 2021. Bird feathers are potential biomonitors for airborne elemental carbon. *Environmental Monitoring and Assessment* 193: 35, <https://doi.org/10.1007/s10661-020-08804-2>.

[g] 32. *Luce, B.W., *T.E. Barrett, **A.G. Ponette-González**. 2020. Student cyclists experience PM_{2.5} pollution hotspots around an urban university campus. *The Geographical Bulletin* 61: 105-113.

[g] 31. Hamel, P. L.L. Bremer, **A.G. Ponette-González**, E. Acosta, J.R.B. Fisher, B. Steele, A. Targa Cavassani, C. Klemz, E. Blainski, K.A. Brauman. 2020. The value of hydrologic information for watershed management programs: the case of Camboriú, Brazil. *Science of the Total Environment* 135871, <https://doi.org/10.1016/j.scitotenv.2019.135871>.

30. *Albus, K., R. Thompson, F. Mitchell, J. Kennedy, **A.G. Ponette-González**. 2020. Accuracy of long-term volunteer water monitoring data: A multiscale analysis from a statewide citizen science program. *PLoS ONE* 15(1): e0227540. <https://doi.org/10.1371/journal.pone.0227540>.

[g] 29. Bremer, L.L., P. Hamel, **A.G. Ponette-González**, P. Vieira Pompeu, S. Saad, K.A. Brauman. 2020. Who are we measuring and modeling for? Supporting multi-level decision-making in watershed management. *Water Resources Research* 56, e2019WR026011, <https://doi.org/10.1029/2019WR026011>.

28. Weathers, K.C., **A.G. Ponette-González**, T.E. Dawson. 2020. Medium, vector, and connector: fog and the maintenance of ecosystems. *Ecosystems* 23: 217-229 (KCW and AGPG contributed equally and are listed as **joint first authors**).

27. Decina, S.M., **A.G. Ponette-González**, *J.E. Rindy. 2020. Urban tree canopy effects on water quality via inputs to the urban ground surface. Pages 433-457 in Levia, D.F., Carlyle-Moses, D.E., Iida, S., Michalzik, B., Nanko, K., Tischler, A. (Eds.). *Forest-Water Interactions*. Ecological Studies Series, No. 240, Springer Nature, Switzerland.

26. **Ponette-González, A.G.**, J.T. Van Stan II, D. Magyar. 2020. Things seen and unseen in throughfall and stemflow. Pages 71-88 in Van Stan II, J.T., Gutmann, J.T., Friesen, J. (Eds.), *Precipitation Partitioning by Vegetation - A Global Synthesis*. Springer Nature, Germany.

[g] 25. *Barrett, T.E., **A.G. Ponette-González**, *J.E. Rindy, K.C. Weathers. 2019. Wet deposition of black carbon: A synthesis. *Atmospheric Environment* 213: 558-567. (TEB and AGPG contributed equally and are listed as **joint first authors**).

[g] 24. *Rindy, J.E., **A.G. Ponette-González**, *T.E. Barrett, R.J. Sheesley, K.C. Weathers. 2019. Urban trees are sinks for soot: elemental carbon accumulation by widespread oak species. *Environmental Science & Technology* 53: 10092-10101. (JER and AGPG contributed equally and are listed as **joint first authors**).

23. Arango, C., **A.G. Ponette-González**, *I. Neziri, *J. Bailey. 2019. Western spruce budworm effects on throughfall C, N, P fluxes and soil nutrient status in the Pacific Northwest. *Canadian Journal of Forest Research* 49: 1207-1218.

[g] 22. **Ponette-González, A.G.**, *J.D. Collins, *J.E. Manuel, *T.A. Byers, G.A. Glass, K.C. Weathers, T.E. Gill. 2018. Wet dust deposition across Texas during the 2012 US drought: An overlooked pathway for elemental flux to ecosystems. *Journal of Geophysical Research-Atmospheres*, <https://doi.org/10.1029/2018JD028806>.

[g] 21. **Ponette-González, A.G.**, Y. Perroni, K.C. Weathers, *P.A. de Souza, F. García-Oliva, W.Z. de Mello. 2017. Nitrogen cycling in tropical Atlantic Forest differing in exposure to urban atmospheric N deposition. *Plant and Soil* 420: 451-465.

[g] 20. Young, K.R., **A.G. Ponette-González**, M.H. Polk, J.K. Lipton. 2016. Snowlines and treelines in the tropical Andes. *Annals of the American Association of Geographers* 107: 429-440.

19. **Ponette-González, A.G.**, H.A. Ewing, K.C. Weathers. 2016. Interactions between precipitation and vegetation canopies. Pages 215-253 in Johnson, E., Martin, Y. (Eds.). *A Biogeoscience Approach to Ecosystems*. Cambridge University Press.

- [g] 18. **Ponette-González, A.G.**, L.M. Curran, A.M Pittman, K.M. Carlson, B.G. Steele, D. Ratnasari, Mujiman, K.C. Weathers. 2016. Biomass burning drives atmospheric nutrient redistribution within forested peatlands in Borneo. *Environmental Research Letters* 11: doi:10.1088/1748-9326/11/8/085003.
- [g] 17. **Ponette-González, A.G.**, H.A. Ewing, M. Fry, K.R. Young. 2016. Soil and fine root chemistry at a tropical Andean timberline. *Catena* 137: 350-359.
- [g] 16. **Ponette-González, A.G.**, K.A. Brauman, E. Marín-Spiotta, K.A. Farley, K.C. Weathers, K.R. Young, L.M. Curran. 2015. Managing water services in tropical regions: From land cover proxies to hydrologic fluxes. *Ambio* 44: 367-375.
15. *de Souza, P.A., **A.G. Ponette-González**, W.Z. de Mello, K.C. Weathers, I.A. Santos. 2015. Atmospheric organic and inorganic nitrogen inputs to coastal urban and montane Atlantic Forest sites in southeastern Brazil. *Atmospheric Research* 160: 126-137.
- [g] 14. *Griffith, K.T., **A.G. Ponette-González**, L.M. Curran, K.C. Weathers. 2015. Assessing the influence of topography and canopy structure on Douglas-fir throughfall fluxes with LiDAR and field data. *Environmental Monitoring and Assessment* 187: 1-13.
13. Carlson, K.M., L.M. Curran, **A.G. Ponette-González**, D. Ratnasari, Ruspita, N. Lisnawati, Y. Purwanto, K.A. Brauman, P.A. Raymond. 2015. Consistent results in stream hydrology across multiple watersheds: A reply to Chew and Goh. *Journal of Geophysical Research: Biogeosciences* 120: 812-817.
- [g] 12. Fry, M., **A.G. Ponette-González**, K.R. Young. 2015. A low-cost GPS-based protocol to create high-resolution DEMs for remote mountain areas. *Mountain Research and Development* 35: 39-48.
- [g] 11. **Ponette-González, A.G.**, M. Fry. 2014. Enduring footprint of historical land tenure on modern land cover in eastern Mexico: Implications for environmental services programmes. *Area* 46: 398-409.
- [g] 10. Carlson, K.M., L.M. Curran, **A.G. Ponette-González**, D. Ratnasari, Ruspita, N. Lisnawati, Y. Purwanto, K.A. Brauman, P. Raymond. 2014. Influence of watershed-climate interactions on stream temperature, sediment yield, and metabolism along a land-use intensity gradient in Indonesian Borneo. *Journal of Geophysical Research – Biogeosciences* 119: 1110-1128.
- [g] 9. **Ponette-González, A.G.**, E. Marín-Spiotta, K.A. Brauman, K.A. Farley, K.C. Weathers, K.R. Young. 2014. Hydrologic connectivity in the high-elevation tropics: heterogeneous responses to land change. *BioScience* 64: 92-104.

[g] 8. McDonald Pittman A., K. Carlson, L.M. Curran, **A.G. Ponette-González**. 2013. NASA satellite data used to study the impact of oil palm expansion across Indonesian Borneo. *The Earth Observer* 25: 12-16.

7. Fry, M.J., D.H. Hoeninghaus, **A.G. Ponette-González**, R. Thompson, T.W. La Point. 2012. Fracking vs. Faucets: Balancing energy needs and water sustainability at urban frontiers. *Environmental Science & Technology* 46: 7444-7445.

6. **Ponette-González, A.G.**, J.E. Byrnes. 2011. Sustainable science? Reducing the carbon impact of scientific mega-meetings. *Ethnobiology Letters* 2: 65-71.

5. Weathers, K.C., **A.G. Ponette-González**. 2011. Atmospheric Deposition. Pages 357-370 in Levia, D.F., Carlyle-Moses, D.E., Tanaka, T. (Eds.), *Forest Hydrology and Biogeochemistry: Synthesis of Past Research and Future Directions*. Ecological Studies Series, Springer-Verlag, Heidelberg, Germany. (KCW and AGPG contributed equally and are listed as **joint first authors**).

[g] 4. **Ponette-González, A.G.**, K.C. Weathers, L.M. Curran. 2010. Tropical land-cover change alters biogeochemical inputs to ecosystems in a Mexican montane landscape. *Ecological Applications* 20: 1820-1837.

3. **Ponette-González, A.G.**, M. Fry. 2010. Pig pandemic: Industrial hog farming in eastern Mexico. *Land Use Policy* 27: 1107-1110.

[g] 2. **Ponette-González, A.G.**, K.C. Weathers, L.M. Curran. 2010. Water inputs across a tropical montane landscape in Veracruz, Mexico: synergistic effects of land cover, rain and fog seasonality, and interannual precipitation variability. *Global Change Biology* 16: 946-963.

[g] 1. **Ponette-González, A.G.** 2007. 2001: A household analysis of Huastec Maya agriculture and land use at the height of the coffee crisis. *Human Ecology* 35: 289-301.

Under review

Baron, J.S., D. Hooper, R. Sabo, J. Compton, S., Bittman, T. Bruulsema, P. Homann, J. Lin, X. Zhang, S. Viswakarma, N. Embertson, D. Schwede, L. Lassaletta, **A.G. Ponette-González**, Assessment of nitrogen flows, impacts, and solutions in North America. Book Chapter.

Pompeu, P.V., M. Mulligan, L.A. Bruijnzeel, J.C. Pires-Oliveira, **A.G. Ponette-González**, K.A. Brauman, P.V. Eisenlohr, M. Flörke, M.A. Leite Fontes, P. Petry, H Ribeiro da Rocha. Most South American cloud forests are likely to disappear under high-end climate change. *Communications Earth & Environment*.

Non-Peer-Reviewed

[g] Ellis, J.L., *S.M. Thomas, *C. Kimpton, **A.G. Ponette-González**. 2023. Particulate matter filtration by urban vegetation at Charles Rice Learning Center. A study conducted by the Ecosystems Lab at the University of North Texas for the Texas Trees Foundation.

Van Stan II, J., **A.G. Ponette-González**. 2022. Branchflows: Upside-down rivers clinging to the bark above our heads. *Frontiers for Young Minds*.

[g] **Ponette-González, A.G.**, L. Nagaoka. 2019. Earth Science Laboratory Manual. 28th Edition. Stipes Publishing, L.L.C.

Adon, M., R. Balasubramanian, P. Boeckx, S. Chantara, L. Duan, P.A. Hervé Fernández, M. Kanakidou, A.L. Pineda Rojas, **A.G. Ponette-González**, K. Tørseth, J. Venkiteswaran. 2017. Final Report (F3-TM-55279) on Technical Meeting on Nitrogen and Isotopes in Atmospheric Waters. IAEA Headquarters, Vienna, Austria. All authors contributed equally and listed alphabetically.

Weathers, K.C., A.E. Elliott, and **A.G. Ponette-González**. 2008. North American Wet Deposition Mapping Project Final Report. Commission for Environmental Cooperation, Montreal.

Ponette, A. 2004. Coffee, Cattle, and Colonialism: Historical effects of markets and agricultural policies on cloud forests in central Veracruz, Mexico. *Tropical Resources Institute Bulletin* 23: 37-44.

Exhibitions

Pollumage, An integrative art-science exhibition. Five Person Exhibition. 2019. Elm Fork Education Center, Eagle Exhibit Hall, UNT.

Research Grants & Fellowships

Between 2011 and 2022, I led or contributed to 10 funded research grants (9 federal: total ~\$8,000,000; ~\$3,000,000 to AGPG) and multiple intramural grants.

In preparation

E.P.A. Environmental and Climate Justice Community Change Grants Program.

Creating Resilient Urban Environments for Refuge. Lead PIs: Lexi Tuddenheim, D. Mendoza. Collaborator: **A.G. Ponette-González**. Grant total: \$20,000,000

Under review

Faculty Small Grant Program. Wildfires fertilize lake and landscape. Lead: **A.G. Ponette-González**. May 2024-April 2024. Grant total: \$10,000.

University of Utah Wilkes Center for Climate Science and Policy Incentive Seed Grant. Unsheltered homelessness and tree equity: Proposed urban extreme heat environmental justice research. Lead: J. Rose. Co-PI: **A.G. Ponette-González**. May 2024-April 2024. Grant total: \$50,000.

University of Utah USTEM Hub's Collaborative Grant Award. Lead: T. Dobie. Co-PI: L. Zummo, **A.G. Ponette-González**, D. Mendoza, HEAL Utah, B. Janney. Sep 2024-May 2025. Grant total: \$17,990.

Current

University of Utah Nature and Human Health. *Breathe 4 Trees*. Lead: Breathe 4 Trees (Utah community organization). Project partner: **A.G. Ponette-González**. May 2024-April 2025. Grant total: \$10,000.

National Science Foundation, Dynamics of Integrated Socio-Environmental Systems. *DISES: Integrating environmental justice into urban forest assessment and valuation tools: blueprint for the future*. Lead PI: **A.G. Ponette-González**. Duration: January 1, 2023-December 31, 2028. Grant total: \$1,549,219.

National Science Foundation, MacroSysBIO & NEON-Enabled Science. *Collaborative Research: MRA: Particulates in canopy flowpaths: A missing mass flux at the macrosystem scale?* Lead PI: John Van Stan, U of Utah Lead PI: **A.G. Ponette-González**. Duration: August 1, 2022-August 31, 2027. Grant total: \$3,807,615. Amount: \$651,159 (To Ponette-González).

National Science Foundation, Geography and Spatial Sciences and Ecosystem Studies. *CAREER: Intra-urban variability in carbon deposition: rates, pathways, and determinants*. Sole PI: **A.G. Ponette-González**. Duration: June 1, 2016-May 31, 2024. Grant total: \$588,335.

Completed Extramural

National Science Foundation, SCC-CIVIC-PG Track A: Community-science partnership to enhance stormwater adaptation under climate change. Lead PI: Wendy Jepson, Co-PI A.G. Ponette-González. Duration: September 1, 2022-August 31, 2023. Grant total: \$49,998.

Texas Trees Foundation. *Species-diverse planting interventions for air quality mitigation in urban areas*. Lead PI: A.G. Ponette-González. Duration: June 1, 2022-May 31, 2024. Grant total \$10,000.

National Science Foundation, Human-Environment and Geographical Sciences. *Patterns and drivers of intra-urban heat and pollution island interactions*. Lead PI: Lu Liang, Co-PI A.G. Ponette-González. Grant total: \$399,994.

National Institutes of Health. *Graduate Research Training Initiative for Student Enhancement (G-RISE) at the University of North Texas.* Lead PI: P.A. Padilla. Faculty mentor A.G. Ponette-González. Duration: May 1, 2022-April 30, 2025. Grant total: ~\$2,000,000.

National Science Foundation/Belmont Foundation, Integrative and Collaborative Education and Research. *Climate-smart watershed investments in the montane tropics of South America.* Lead PI: K.A. Brauman (U. of Minnesota), Co-PI A.G. Ponette-González. Duration: June 1, 2016-May 31, 2020. Grant total: \$450,883. Amount: \$51,524 (UNT portion).

National Science Foundation, Geomorphology and Land Use Dynamics. *EAGER Collaborative Research: Exploring dust impacts on terrestrial ecosystem processes using an innovative and integrated approach.* Lead PI: A.G. Ponette-González, Co-PI T.E. Gill. Duration: November 1, 2015-October 31, 2017. Grant total: \$45,145. Amount: \$36,586 (UNT portion).

National Socio-Environmental Synthesis Center (SESYNC) Postdoctoral Fellowship Program 2014. *Global synthesis of hillslope terracing: Building new tools for environmental management.* Lead PI: M.C LaFavor, Collaborator/Mentor: A.G. Ponette-González. Duration: September 1, 2014-August 31, 2016. Amount: \$5,000 (to AGPG).

National Aeronautics and Space Administration. *Socio-economic and political drivers of oil palm expansion in Indonesia.* Lead PI: Lisa Curran, Senior Personnel: A.G. Ponette-González. Duration: March 1, 2011-February 28, 2015. Grant total: \$899,929 Amount: \$58,881 (UNT portion).

National Science Foundation, Office of International Science and Engineering. *US-Mexico Collaborative Research: Afforestation effects on nitrogen cycling in Mexico's eastern highlands.* Lead PI: A.G. Ponette-González. Duration: October 1, 2011-November 31, 2014. Grant total: \$100,000. Amount: \$46,705 (UNT portion).

National Geographic Society Committee for Research and Exploration. *Tropical treelines and global change in the Andes.* Lead PI: A.G. Ponette-González. Duration: March 31, 2011-April 1, 2012. Grant total: \$20,000.

Geo-Informatics and Space Technology Development Agency. *Spatial patterns of tropical montane forest cover across national park boundaries in the northern Peruvian Andes.* Sole PI: A.G. Ponette-González. THEOS satellite image data grant.

National Aeronautics and Space Administration. *Land cover effects on water fluxes and atmospheric deposition across a Mexican tropical montane landscape.* To A.G. Ponette-González. ASTER data grant.

National Science Foundation Minority Postdoctoral Research Fellowship. *Ecological barriers to montane forest restoration: Land use legacies and forest recovery in the tropical*

Andes. Sole PI: A.G. Ponette-González. Duration: September 1, 2009-August 31, 2011. Amount: \$120,000.

National Aeronautics and Space Administration Graduate Student Research Fellowship. *Land cover effects on water fluxes and atmospheric deposition across a Mexican tropical montane landscape*. Sole PI: A.G. Ponette-González. Duration: September 1, 2006-August 31, 2009. Amount: \$84,000.

National Science Foundation Doctoral Dissertation Improvement Grant. *Land cover effects on water fluxes and atmospheric deposition across a Mexican tropical montane landscape*. Lead PI: Kathleen Weathers, Co-PI: A.G. Ponette-González. Duration: September 1, 2006-August 31, 2008. Amount: \$12,000.

U.S. Department of Education Fulbright-Hayes Doctoral Dissertation Research Award. Sole PI: A.G. Ponette-González. Duration: September 1, 2005-August 31, 2006. Amount: \$17,334.

Compton Foundation Research Fellowship. To A.G. Ponette-González. Duration: September 1, 2005-August 31, 2006. Amount: \$10,000.

Yale Institute of Biospheric Studies Graduate Research Fellowship. To A.G. Ponette-González. Duration: June 1, 2003-August 31, 2004. Amount: \$5,000.

Ford Foundation Predoctoral Diversity Fellowship. Sole PI: A.G. Ponette-González. Duration: September 1, 2002-August 31, 2003. Amount: \$54,000.

Yale Institute of Biospheric Studies Field Ecology Award. To A.G. Ponette-González. Duration: June 1, 2003-August 31, 2003. Amount: \$300.

Tinker Foundation Field Research Grant. To A.G. Ponette-González. Duration: June 1, 2003-August 31, 2003. Amount: \$1,500.

Yale Tropical Resources Institute Graduate Research Fellowship. To A.G. Ponette-González. Duration: June 1-August 31, 2003. Amount: \$2,500.

Yale School of Forestry and Environmental Studies Graduate School Fellowship. To A.G. Ponette-González. Duration: September 1, 2002-August 31, 2009. Amount: \$93,000.

University of Texas at Austin International Education Fee Scholarship. To A.G. Ponette-González. Duration: June 1-August 31, 2002. Amount: \$600.

Tinker Foundation Field Research Grant. To A.G. Ponette-González. Duration: June 1-August 31, 2001. Amount: \$1,500.

University of Texas at Austin International Education Fee Scholarship. To A.G. Ponette-González. Duration: June 1-August 31, 2001. Amount: \$600.

University of Texas at Austin COLA/LLILAS Field Research Grant. To A.G. Ponette-González. Duration: June 1-August 31, 2001. Amount: \$630.

University of Texas at Austin E.D. Farmer Fellowship. To A.G. Ponette-González. Duration: June 1-August 31, 2001. Amount: \$6,000.

University of Texas at Austin Donald D. Brand Predissertation Fellowship. To A.G. Ponette-González. Duration: June 1-August 31, 2000. Amount: \$1,000.

McArthur-Hewlett-Ford Foundation Graduate Fellowship in the Social Sciences. To A.G. Ponette-González. Duration: September 1, 2000-August 31, 2002. Amount: \$10,800.

Completed Intramural

University of North Texas Small Grant. *Small grant proposal: Species-Diverse Vegetation Barriers for Air Quality Mitigation in Urban Areas.* Lead PI: A.G. Ponette-González: January 2022-December 2022. Grant total: \$2,000.

University of North Texas, Faculty Success Grant. Duration: June 1, 2021-August 31, 2021. Grant total: \$3,000.

University of North Texas, Research Seed Grant. *Atmospheric footprint of US wildfires.* Duration: November 1, 2020-October 31, 2021. Grant total: \$8,000.

University of North Texas, Team Mentoring Grant. *Hazy views over U.S. public lands.* Duration: December 11, 2020-August 31, 2021. Grant total: \$4,340.

University of North Texas Small Grant. *Small grant proposal: Birds as biomonitors of soot pollution.* Lead PI: A.G. Ponette-González: October 2018-August 2019. Grant total: \$2,000.

University of North Texas Undergraduate Research Fellowship. *Bird feathers as biomonitors of soot pollution.* Lead PI: A.G. Ponette-González, Student: Claire Pitre. Duration: September 2018-August 2019. Grant total: \$500.

University of North Texas Micro Mentoring Grant. *A micro mentoring grant to support in-person collaboration: A critical component of long-term collaborative research.* Lead PI: A.G. Ponette-González. Duration: September 2018-August 2019. Grant total: \$1,158.

University of North Texas Mentoring Grant. *Air rights, space, and materiality.* Lead PI: M. Fry, Co-PI: A.G. Ponette-González, J. Johnson, D. Doherty. Duration: September 2017-August 2018. Grant total: \$3,400.

University of North Texas Small Grant. *Small grant proposal: Particle pollution hotspots in a rapidly growing city.* Lead PI: A.G. Ponette-González. August 2017. Grant total: \$1,000.

University of North Texas Research Initiation Grant. *Sensitivity of a tropical treeline forest to ENSO in the Andean-Amazon Basin, Peru.* Sole PI: A.G. Ponette-González. Duration: January 1-December 31, 2012. Grant total: \$7,000 (to AGPG).

Applied For (not funded)

National Science Foundation, SCC-CIVIC-FA Track A: Community-Science Partnership to Enhance Stormwater Adaptation under Climate Change. Lead PI: Wendy Jepson; Unfunded Collaborator: **A.G. Ponette-González.** Duration: 1 October 2023 - 30 September 2024. Grant total: \$972,112.

National Science Foundation, Sustainable Regional Systems Research Networks (SRS RN). *SRS RN Track 2: Building an Alliance for Sustainable Urban Systems Research.* Lead PI: Wendy Jepson. Co-PI A.G. Ponette-González. Grant total: \$149,928.

National Science Foundation, SBE Office of Multidisciplinary Activities. *Addressing immigration, environmental justice, and their convergence at a Minority-Serving Institution through a constellation mentoring network approach.* Lead PI: A.G. Ponette-González. Co-PI: J. Meernik, T. Brown, A. Rinn. Grant total: \$266,651.

National Science Foundation, Division of Undergraduate Education. *Integrating geospatial science and photography curricula and mentoring to enhance Geo-STEM recruitment and success.* Lead PI: A.G. Ponette-González. Duration: October 1, 2020-September 30, 2025. Grant total: \$999,452.

National Science Foundation, Division of Graduate Education. NSF Research Traineeship (NRT). *NRT-INFEWS: Scientifically-engaged communities for food-energy-water sustainability.* PI: D. Hoeninghaus, Co-PI: L. Henry, A.G. Ponette-González, M. Fry, A. Mikler. Duration: September 1, 2018-August 31, 2023. Grant total: \$3,000,000.

National Science Foundation, Ecosystem Studies Program. *Collaborative Research: Canopy herbivore effects on lateral and downstream ecological subsidies in western US forests.* Lead PI: C. Arango (CWU). Co-PI: A.G. Ponette-González. Duration: March 1, 2018-February 28, 2022. Grant total: \$742,159.

National Science Foundation, Geomorphology and Land Use Dynamics. *Collaborative Research: Dust sources, sinks, and ecosystem interactions along an ecoclimatic gradient.* Lead PI: A.G. Ponette-González. Duration: September 1, 2015-August 31, 2017. Grant total: \$436,950.

Media Coverage

@theU: Science in the Rain

- <https://attheu.utah.edu/facultystaff/science-in-the-rain-alexandra-ponette-gonzalez/>

UNT Researchers Study Equity of Digital Tools for Urban Forest Management

- NBC DFW local news
- Dallas Innovates
- Fort Worth Ashley
- Oregon

Civic Innovation Challenge

- Texas A&M College of Arts and Science
- Texas A&M Agrilife Today

Saharan Dust Invades North Texas

- Dallas Express

From radioactive rain to hitchhiking tardigrades, particulates in precipitation have big implications for ecosystems

- Denton Record Chronicle
- UNT News

Accuracy of long-term volunteer water monitoring data: A multiscale analysis from a statewide citizen science program

- Phys.Org - Team finds citizen scientists make excellent resources
- Denton Record Chronicle - Citizen scientists get a bump in credibility

Urban trees are sinks for soot: elemental carbon accumulation by two widespread oak species

- NSF news - Oak trees in Southern U.S. cities are natural urban air filters
- Phys.org - Oak trees in Southern U.S. cities are natural urban air filters
- Technology Networks - Oak trees are natural urban air filters
- Denton Record Chronicle
- Dallas Innovates - UNT finds oak trees scrub black carbon from atmosphere
- La Jornada (Mexico) - Especies de robles eliminan carbono negro de la atmósfera
- 4 Awesome Discoveries You Probably Didn't Hear About - Episode 33
- UNT homepage
- The North Texan Alumni Magazine – Clearing the Air, 26 Sep 2019

Wet dust deposition across Texas during the 2012 US drought: An overlooked pathway for elemental flux to ecosystems

- Science Daily - Dust carried by rainwater across Texas: Study sheds light on composition

- Phys.Org - Study sheds light on composition of dust carried by rainwater across Texas
- Eureka Alert - Study sheds light on composition of dust carried by rainwater across Texas
- Newswise: UNT, UTEP Collaboration sheds light on composition of dust carried by rainwater across Texas

NSF CAREER grant

- Denton Record Chronicle - Scientist finds beauty in dusty oak trees, Cover story, 12 July 2018.
- UNT Research magazine - Discovery through collaboration. Cover story, January 2019.

Sustainable science? Reducing the carbon impact of scientific mega-meetings.

- Nature - Sustainability: A greener culture

Biomass burning drives atmospheric nutrient redistribution within forested peatlands in Borneo.

- Environmental research round up

Hydrologic connectivity in the high-elevation tropics: heterogeneous responses to land change

- BioScience cover

Presentations

Invited Seminars

International

Ponette-González, A.G. Bosque Urbano: Sumidero de Carbono Negro. Invited keynote speaker for the Programa Mexicano del Carbono (Mexican Carbon Program) Symposium. Mexico City, Mexico, 26-28 October 2022.

Ponette-González, A.G. Contemporary rates of atmospheric nitrogen (N) and sulfur (S) deposition to Latin American cities. Invited expert for Technical Meeting on Nitrogen and Isotopes in Atmospheric Waters, Austria, Vienna, 27-29 September 2017.

Ponette-González, A.G. What goes up must come down: where, why, and who cares? Maynooth University, Maynooth, Ireland, 10 May 2016.

Ponette-González, A.G. Heterogeneidad de agua y nutrientes en montañas tropicales. Seminar Series, Universidad Veracruzana, Xalapa, Mexico, 12 March 2014.

Ponette-González, A.G. Linking land cover and ecosystem function. Seminar Series, Department of Geochemistry, Universidade Federal Fluminense, Rio de Janeiro, Brazil, 19 November 2012.

Ponette-González, A.G. Cambio de uso de suelo y bordes ecológicos. Seminar Series, Museo de Historia Natural, Lima, Peru, 28 June 2011.

Ponette-González, A.G. Ecosystem and biodiversity response to climate change in the Andes. Adapting to a world without glaciers: realities, challenges and actions, Lima, Peru, 8 July 2009.

National

Ponette-González, A.G. Trees are the answer: for what and for whom? Department of Geographical Sciences and Planning. Arizona State University, 29 September 2023.

Ponette-González, A.G. Sinks for soot: black carbon in the urban ecosystem. Biogeoscience seminar series. Boston University, 12 April 2021.

Ponette-González, A.G. Dusty skies and sooty cities: the fallout. Seminar series. University of Tulsa, 31 March 2021.

Ponette-González, A.G. Dusty skies and sooty cities: the fallout. University of Connecticut, 15 February 2021.

Ponette-González, A.G. Dust- and smoke-in-rain: Sources of nutrients and pollutants to terrestrial ecosystems in Texas. Texas State University, 22 February 2019.

Ponette-González, A.G. Fire, fuel, and dust: Sources of nutrients and pollutants to terrestrial ecosystems. University of Wisconsin-Madison Yi-Fu Tuan Lecture Series, 2 March 2018.

Ponette-González, A.G. Atmospheric fluxes to ecosystems and landscapes: What goes up must come down. Texas A&M University, 7 November 2016.

Ponette-González, A.G. Telecoupling in tropical forests: what goes up must come down. Department of Geology. Baylor University, 22 April 2016.

Ponette-González, A.G. Geographic scales of influence on atmospheric fluxes to tree canopies (and connections to climate). Roy M. Huffington Department of Earth Sciences. Southern Methodist University, 13 November 2015.

Ponette-González, A.G. Heterogeneous hydrologic and biogeochemical responses to land change in the high-elevation humid tropics. CUAHSI 2014 Biennial: Water Across the Critical Zone, From Local to Global Hydrology, Shepherdstown, West Virginia, 28-30 July 2014.

Ponette-González, A.G. The widest mutual connection: Water flows through heterogeneous space. University of Arizona, 29 April 2014.

Ponette-González, A.G. Many ways to be a catchment scientist: Perspectives from different lives in catchment science. Gordon Research Seminar, Andover, NH, 15-16 June 2013.

Ponette-González, A.G. Linking land cover and ecosystem function on tropical mountains. Seminar Series. Department of Geography Oklahoma University, Norman, OK, 9 November 2012.

Ponette-González, A.G. Boundaries and biogeochemistry. Field Notes Lecture Series. Department of Geography, Central Washington University, Ellensburg, WA, 28 November 2010.

Ponette-González, A.G. From the atmosphere to ecosystems: Tropical land-cover effects on water and biogeochemical fluxes in eastern Mexico. Seminar Series. Department of Integrative Biology, University of Texas at San Antonio, San Antonio, TX, 9 February 2010.

Ponette-González, A.G. Water, nutrient, and pollutant inputs to a complex mountain watershed in Mexico. Colloquium series. Department of Geography and the Environment, University of Texas at Austin, Austin, TX, 2 October 2009.

Ponette-González, A.G. Environmental conservation across a human-modified tropical montane landscape in central Veracruz, Mexico. Applied Biodiversity Seminar Series, Texas A&M University, College Station, TX, 6 October 2008.

Regional

Ponette-González, A.G. On the use and application of the canopy concept. Geography GROW Seminar, University of Utah, 14 April 2023.

Ponette-González, A.G. Urban trees are air filters. Salute to Faculty Excellence, University of North Texas, 18 October 2017.

Ponette-González, A.G. Telecoupling in tropical forests: what goes up must come down. Geography, Anthropology, Biology Research Activities Forum, University of North Texas, 16 May 2016.

Ponette-González, A.G. Water flows through heterogeneous space, City of Dallas Environmental Education Initiative, 9 April 2016.

Ponette-González, A.G. Tropical mountain water towers in transition. Seminar Series, Department of Geography, University of North Texas, Denton, TX, 12 November 2010.

Conference Research Presentations (*student or postdoc)

International

Ponette-Gonzalez, A.G. (Invited presenter), *J.E. Rindy, *T.E. Barrett, *D. Chen, *E. Elderbrock, Y. Ko, J. Lee, R.J. Sheesley, K.C. Weathers. Oak trees are elemental carbon sinks in urban ecosystems: patterns and drivers. European Geosciences Union, Vienna, Austria, 3-8 May 2020.

Ponette-González, A.G., L.M. Curran, K.M. Carlson, A.M. Pittman, B. Steele, D. Astiani, D. Ratnasari, Mujiman, K.C. Weathers. 2015. Biogeochemical inputs to a coastal forested Bornean peatland. Poster presented at the International Workshop on Air Quality in Asia, Impacts of Land Cover/Land Use Changes on Greenhouse Gases/SLCP and Aerosols. Bogor, Indonesia, 4-7 August 2015.

Ponette-González, A.G., Y. Perroni, K.C. Weathers, F. García-Oliva, P.A. de Souza, W.Z. de Mello. Deposición y ciclaje de nitrógeno en suelo de bosques montanos aledaños a una ciudad tropical. Paper presented at the V Simposio de Ecología, Manejo, y Conservación de los Ecosistemas de Montaña en México, Xalapa, Veracruz, 14-16 October 2014.

Ponette-González, A.G., M.J. Fry. Enduring footprint of historical land tenure on modern land cover in eastern Mexico: implications for environmental services programs. Paper presented at the Conference of Latin Americanist Geographers Meeting, Panama City, Panama, 7-8 January 2014.

Fry, M.J., **A.G. Ponette-González.** Creating Digital Elevation Models in data-poor mountainous regions: a comparative analysis of DEMs developed for a Peruvian glacial valley. Paper presented at the Conference of Latin Americanist Geographers Meeting, Panama City, Panama, 7-8 January 2014.

Fry, M.J., **A.G. Ponette-González.** Field mapping tropical treelines in Peru. Paper presented at the Conference of Latin Americanist Geographers Meeting, Mérida, Yucatán, México, 11-13 January 2012.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Land cover, rain and fog seasonality, and interannual precipitation variability alter water inputs across a tropical montane landscape in Veracruz, Mexico. Paper presented at the Conference of Latin Americanist Geographers Meeting, Granada, Nicaragua, 7-9 January 2009.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Coffee, cattle, and cloud forests: land cover effects on rain and fog water fluxes across a human-inhabited landscape. Poster presented at the Ecological Society of America Meeting, Mérida, Yucatán, MX, 9-12 January 2006.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Land cover effects on water fluxes and atmospheric deposition across a Mexican tropical montane landscape. Paper presented at the Conference of Latin Americanist Geographers Meeting, Morelia, Michoacán, MX, 26-28 October 2005.

National

Coles, A.R. **A.G. Ponette-González**, M. Fry, K. Alexander, B. Williamson, *R. Babino. Digital tools in urban forestry research: a systematic review. American Association of Geographers Annual Meeting, Honolulu, Hawaii, 16-20 April 2024.

Ponette-González, A.G., *E. Elderbrock, *J.E. Rindy, *D. Chen, J.H. Lee, K.C. Weathers, Y. Ko. Urban form influences elemental carbon deposition to city trees: implications for future forest planning. American Association of Geographers Annual Meeting, Honolulu, Hawaii, 15-20 April 2024.

*Burke, M., **A.G. Ponette-González**, E. Marín-Spiotta. Black carbon in urban soils: a global synthesis. Poster presented at AGU Fall Meeting, Chicago, 12-16 December 2022.

*Elderbrock, E., **A.G. Ponette-González**, *J.E. Rindy, J. Lee, K.C. Weathers, Y. Ko. Urban form and black carbon removal by city trees: Spatial modeling to enhance urban forest planning. Poster presented at AGU Fall Meeting, Chicago, 12-16 December 2022.

*Kang, K.A., **A.G. Ponette-González**, C. R. Ferring, E. Marín-Spiotta. Soil carbon accumulation beneath trees and lawns in an urban ecosystem. Paper presented at the American Association of Geographers Meeting, 7-11 April 2021.

*Elderbrock E., **A.G. Ponette-González**, Y. Ko, J. Lee, *J.E. Rindy. Modeling black carbon removal by city trees: implications for urban forest planning. Paper presented at Council of Educators in Landscape Architecture, Virtual Meeting, 17-20 March 2021.

Ponette-González, A.G., *H. Lewis, B.H. Henderson, D. Carnelos, G. Piñeiro, K.C. Weathers, D. Schwede. Atmospheric inorganic nitrogen (N) deposition to Latin American cities: Comparison of field and Geos-Chem model estimates. National Atmospheric Deposition Program 2020 Virtual Scientific Symposium, 26-27 October 2020.

*Williamson, T., **A.G. Ponette-González**, K.C. Weathers, M. Olson. Characterization of Texas wildfires during the 2011-2014 drought: A prelude to identifying chemical signatures of

smoke in rain. National Atmospheric Deposition Program 2020 Virtual Scientific Symposium, 26-27 October 2020.

*Ellis, J., **A.G. Ponette-González**, J.A. Johnson, M. Fry. Particulate matter deposition to urban rock pigeon (*Columba livia*) feathers. National Atmospheric Deposition Program 2020 Virtual Scientific Symposium, 26-27 October 2020.

Ponette-González, A.G., D. Doherty, M. Fry, *C. Pitre, *A. Lee, J.A. Johnson. Benefits of integrating scientific research and visual arts for undergraduate students and faculty. Poster presented at AGU Fall Meeting, San Francisco, 9-13 December 2019.

Hamel, P., L. Bremer, **A.G. Ponette-González**, B. Steele, E. Acosta, A. Targa Cavassani, J. Fisher, K.A. Brauman. Understanding the value of information in the Camboriú watershed management program, Brazil. Poster presented at AGU Fall Meeting, San Francisco, 9-13 December 2019.

Dawson, T.E., K.C. Weathers, **A.G. Ponette-González**. Occult water: a medium that connects the atmosphere to plants and ecosystems. Paper presented at AGU Fall Meeting, San Francisco, 9-13 December 2019.

*Barrett, T.E., **A.G. Ponette-González**, *J.E. Rindy, R.J. Sheesley, K.C. Weathers. Intra-urban variability in EC deposition via rainfall and throughfall. Poster presented at AGU Fall Meeting, Washington D.C., 10-14 December 2018.

Hamel, P., K.A. Brauman, M. Flörke, L. Bremer, **A.G. Ponette-González**, H. Rocha, C. Schneider, P. Vieira Pompeu, L. Dominguez, C. Josef, A. Targa Cavassani, C. Klemz, E. Acosta, P. Petry, S. Saad. ClimateWise: illuminating landscape hydrology in the montane tropics through interviews, data analysis, and multi-scale modeling. Poster presented at AGU Fall Meeting, Washington D.C., 10-14 December 2018.

*Byers, T.A., *J.E. Manuel, **A.G. Ponette-González**, T.E. Gill, C.M.B. Lehmann, J.D. Collins, K.C. Weathers, G.A. Glass. PIXE analysis of dust in rainwater collected on polysulfone filters. Paper presented at the 25th International Conference on the Application of Accelerators in Research and Industry, Grapevine, TX, 12-17 August 2018.

Ponette-González, A.G., J.D. Collins, *J.E. Manuel, *T.A. Byers, G.A. Glass, K.C. Weathers, T.E. Gill. Dust in rain during drought: An overlooked pathway for elemental flux to ecosystems. Poster presentation at the AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.

*Barrett, T.E., **A.G. Ponette-González**, *J.E. Rindy, R.J. Sheesley, K.C. Weathers. Intra-urban variability in elemental carbon deposition to tree canopies. Poster presentation at the AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.

*Luce, B.W., *T.E. Barrett, **A.G. Ponette-González**. Urban cyclist exposure to fine particle pollution in a rapidly growing city. Poster presentation at the AGU Fall Meeting, New Orleans, LA, 11-15 December 2017.

Ponette-González, A.G., *T.E. Barrett, *J.E. Rindy, R.J. Sheesley, K.C. Weathers. Elemental carbon deposition to urban tree canopies: magnitudes and spatial patterns. Paper presented at the National Atmospheric Deposition Program 2017 Technical Committee Meeting, San Diego, CA, 31 October-3 November 2017.

*Rindy, J.E., **A.G. Ponette-González**, *T.E. Barrett, *B.W. Luce, R.J. Sheesley, K.C. Weathers. Atmospheric elemental carbon (EC): Deposition to oak trees and litterfall flux to soil in an urban area. Poster presented at the National Atmospheric Deposition Program 2017 Technical Committee Meeting, San Diego, CA, 31 October-3 November 2017. **Award: 1st place** in Graduate Paper Student Competition. (Thesis research directed by **A.G. Ponette-González**)

Ponette-González, A.G., *J.D. Collins, T.E. Gill, G.A. Glass, K.C. Weathers. Don't Neglect the Rain: Wet dust deposition across Texas. Paper presented at the American Association of Geographers Annual Meeting, Boston, Massachusetts, 5-9 April 2017.

Ponette-González, A.G., *J.D. Collins, T.E. Gill, G.A. Glass, K.C. Weathers. Wet dust deposition across Texas: Don't neglect the rain. Poster presented at the AGU Fall Meeting, San Francisco, CA, 12-16 December 2016.

Brauman, K.A., **A.G. Ponette-González**, L. Bremer, P. Hamel, M. Flörke, H. Rocha, C. Schneider. 2016. Investment in Watershed Services projects: the ClimateWise project. Poster presented at the AGU Fall Meeting, San Francisco, CA, 12-16 December 2016.

*Lewis, H., **A.G. Ponette-González**, K.C. Weathers, D. Schwede, and B. Henderson. 2016. Characterizing nitrogen and sulfur deposition in Latin America: simulation and evaluation. Poster presented at the National Atmospheric Deposition Program 2016 Technical Committee Meeting, Santa Fe, NM, 31 October-4 November 2016.

*Bailey, J., **A.G. Ponette-González**, C.P. Arango How can an eruptive canopy herbivore affect throughfall chemistry? Poster presented at the American Association of Geographers Annual Meeting, San Francisco, California, 27 March-2 April 2016.

Ponette-González, A.G., Y. Perroni, K.C. Weathers, F. García-Oliva, P.A. de Souza, W.Z. de Mello. Atmospheric nitrogen inputs and cycling in montane forests in and near a major tropical city. Paper presented at the Annual Association of American Geographers Meeting, Chicago, IL, 21-25 April 2015.

Ponette-González, A.G., L.M. Curran, K.M. Carlson, A.M. Pittman, B. Steele, D. Astiani, D.

Ratnasari, Mujiman. 2015. Interannual variability in water and biogeochemical inputs to a coastal Bornean peatland. Poster presented at NASA Carbon Cycle & Ecosystems Joint Science Workshop, College Park, MD, 20-24 April 2015.

Brauman, K.A., **A.G. Ponette-González**, E. Marín-Spiotta, K.A. Farley, K.C. Weathers, K.R. Young, L.M. Curran. 2014. Manage hydrologic fluxes instead of land cover in watershed services projects. Poster presented at the AGU Fall Meeting, San Francisco, CA, 15-19 December 2014.

Ponette-González, A.G., E. Marín-Spiotta, K.A. Brauman, K.A. Farley, K.C. Weathers, K.R. Young. Heterogeneous hydrologic and biogeochemical responses to land change in the high-elevation humid tropics. Paper presented at the Annual Association of American Geographers Meeting, Tampa, Florida, 8-12 April 2014.

Ponette-González, A.G. Biogeography Specialty Group session on interdisciplinary research in biogeography. Annual Association of American Geographers Meeting, Tampa, Florida, 8-12 April 2014.

*Gray, A.E., **A.G. Ponette-González**. Importance and spatial distribution of two major host trees of *Phytophthora ramorum* in a coast redwood forest in Soquel, California. Paper presented at the Annual Association of American Geographers Meeting, Tampa, Florida, 8-12 April 2014.

Ponette-González, A.G., K.C. Weathers, G. Piñeiro, W.Z. de Mello, P.A. de Souza, B. Steele, L.M. Curran, D. Carnelos, Y. Perroni. The atmospheric deposition footprint of Latin American cities. Paper presented at the Association of American Geographers Annual Meeting, Los Angeles, California, 9-13 April 2013.

Carlson, K.M., L.M. Curran, **A.G. Ponette-González**, J.H. Jones, D. Ratnasari. Effects of oil palm plantations on freshwater streams in Indonesian Borneo. Poster presented at the NASA LCLUC Science Team Meeting, Rockville, MD, 2-5 April 2012.

Ponette-González, A.G., H.A. Ewing, K.R. Young, C.R. Ferring. Land-use legacies in the Andes: fire, grazing, and soil chemistry across treeline. Paper presented at the Association of American Geographers Annual Meeting, New York City, New York, 24-28 February 2012.

Ponette-González, A.G., K.C. Weathers, A.M. Lindsey. Estimates of wet deposition across North America: challenges and opportunities of merging data across nations. Paper presented at the National Atmospheric Deposition Program 2011 Technical Committee Meeting, Providence, RI, 25-28 October 2011.

Ponette-González, A.G., L.M. Curran, K.C. Weathers. Land-cover and precipitation variability effects on water and atmospheric inputs to tropical forest landscapes. Poster

presented at the NASA Carbon Cycle & Ecosystems Joint Science Workshop, Alexandria, VA, 3-7 October 2011.

Ponette-González, A.G., K.R. Young. Stable boundaries: woody plant encroachment and soil chemistry above treeline in the northern Peruvian Andes. Paper presented at the Association of American Geographers Meeting, Seattle, WA, 12-16 April 2011.

Young, K.R., J. Postigo, B. León, **A.G. Ponette-González**, D. Silva. Implications of global change for high Andean biodiversity and land cover: examples from Peru. Paper presented at the Global Land Project Open Science Meeting, Tempe, AZ, 16-19 October 2010.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Nutrient and pollutant redistribution after land-cover change: evidence from eastern Mexico. Paper presented at the Association of American Geographers Meeting, Washington D.C., 14-18 April 2010.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Effects of tropical land-cover change on spatial patterns of atmospheric deposition and throughfall ion fluxes to montane ecosystems in eastern Mexico. Poster presented at Society for the Advancement of Chicanos and Native Americans in Science Meeting, Dallas, TX, 15-17 October 2009.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Synergistic effects of land cover type, rain and fog seasonality, and climatic extremes on water inputs to a tropical mountain landscape in eastern Mexico. Paper presented at the 2nd International Conference on Forests and Water in a Changing Environment, Raleigh, NC, 14-16 September 2009.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Land use change effects on water fluxes and atmospheric deposition across a Mexican tropical montane landscape. Dissertation research presented at the NASA Graduate Student Researchers Program Symposium, Greenbelt, MD, 24-26 September 2008.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Spatiotemporal effects of land use/land cover type on water and atmospheric inputs across a Mexican tropical montane landscape. Poster presented at the Association of American Geographers Meeting, Boston, MA, 15-19 April 2008.

Ponette-González, A.G., K.C. Weathers, L.M. Curran. Spatial and temporal effects of land cover type on water atmospheric inputs across a tropical montane landscape. Poster presented at the NASA Graduate Student Researchers Program Symposium, Greenbelt, MD, 19-21 September 2007.

Ponette-González, A.G. Costs and benefits of Huastec coffee cultivation: role of land availability in household economic decisions. Paper presented at the Association of American Geographers Centennial Meeting, Philadelphia, PA, 14-19 March 2004.

Regional

Fry, M.J., B. Williamson, R. Babino, K. Alexander, A. Coles, **A.G. Ponette-González**. Digital tools in urban forestry: Using deep content analysis and two-way collaborative coding to interrogate the digital turn in recent research. 8th Annual Digital Humanities Utah Symposium. 22-24 February 2024.

*Babino, R., **A.G. Ponette-González**, M. Fry. Participation, Protection, and Policy: An Exploration of Urban Forestry in Four Tree Cities USA. Poster presented at the 2023 UNT Scholars Day.

*Thomas, S., J.L. Ellis, *C. Kimpton, C. Holder, **A.G. Ponette-González**. Tiny water droplets hint at tree species' capacity to filter air pollution at a Dallas Elementary School. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, 27-29 October 2022. **Award: 2nd place** in Graduate Poster Student Competition (Research directed by **A.G. Ponette-González**).

*Dwelle, E., M. Fry, **A.G. Ponette-González**. Plants and Particulate Matter Pollution Indoors: A Pilot Study. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, 27-29 October 2022.

*Babino, R., **A.G. Ponette-González**, M. Fry. Participation, Protection, and Policy: An Exploration of Urban Forestry in Four Tree Cities USA. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, 27-29 October 2022.

*Kimpton, C., *S. Gayathri, J.L. Ellis, **A.G. Ponette-González**. All Roads Lead to Polluted Air? Particulate Matter Accumulation by Live Oak Leaves on UNT Campus. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, 27-29 October 2022.

*Kimpton, C., *S. Gayathri, J. Ellis, **A.G. Ponette-González**. All roads lead to polluted air? Particulate matter accumulation by live oaks on UNT campus. Poster presented at the Geography Student Association Symposium and UNT Scholars Day.

*S. Gayathri, *C. Kimpton, J. Ellis, **A.G. Ponette-González**. Shining light on plant health: Using reflectance spectroscopy to assess particulate pollution effects on campus trees. Poster presented at the Geography Student Association Symposium and UNT Scholars Day.

*Williamson, T., **A.G. Ponette-González**, L. Liang, K.C. Weathers, M. Olson. Wildfire influence on rainfall chemistry and deposition in Texas during the 2011-2014 drought. Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Virtual, 13-15 October 2021.

*Thomas, S., *C. Kimpton, **A.G. Ponette-González**. COVID-19 closed national parks. What happened when they reopened? Undergraduate research poster presented at the Southwestern Division of the American Association of Geographers Meeting, Virtual, 13-15 October 2021.

*Burke, M., **A.G. Ponette-González**, E. Marín-Spiotta. Black carbon in urban spaces: A crucial component of the soil cycle. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, Virtual, 13-15 October 2021.

*Rangel, R., **A.G. Ponette-González**, *T. Williamson, *J. Daniels, L. Liang, J. Brahney, K.C. Weathers. Wildfire contribution to wet deposition during smoke-affected rainfall events. UNT Scholars Day, 6 April 2021.

*Thomas, S., *C. Kimpton, **A.G. Ponette-González**. COVID-19 US National Park Visitation Trends 2020. UNT Scholars Day, 6 April 2021.

*Williamson, T., **A.G. Ponette-González**, L. Liang, K.C. Weathers, M. Olson. Characterization of Texas wildfires during the 2011-2014 drought: A prelude to identifying chemical signatures of smoke in rain. Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Virtual, 17-19 November 2020. **Award: 3rd place** in Graduate Paper Student Competition (Research directed by **A.G. Ponette-González**).

*Ellis, J., **A.G. Ponette-González**, J.A. Johnson, M. Fry. Particulate matter deposition to urban rock pigeon (*Columba livia*) feathers. Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Virtual, 17-19 November 2020.

*Kang, K., **A.G. Ponette-González**. Vegetation and land-use effects on the spatial distribution and accumulation of soil black carbon in an urban ecosystem. Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Fort Worth, Texas, 10-12 October 2019. **Award: 1st place** in Graduate Paper Student Competition (Research directed by **A.G. Ponette-González**).

Ponette-González, A.G., P. Hamel, L.L. Bremer, B. Steele, K.A. Brauman. Rainfall erosivity patterns in three Brazilian tropical Atlantic Forest watersheds. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, Fort Worth, Texas, 10-12 October 2019.

*Ellis, J. **A.G. Ponette-González**, J.A. Johnson. Particulate matter deposition to bird feathers along North American migration flyways. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, Fort Worth, Texas, 10-12 October 2019.

*Williamson, T. **A.G. Ponette-González**. Tracing chemical and elemental fingerprints of extreme atmospheric events in rainwater. Poster presented at the Southwestern Division

of the American Association of Geographers Meeting, Fort Worth, Texas, 10-12 October 2019.

*Kang, K., **A.G. Ponette-González**. Transfer of black carbon from leaf litter to soil and accumulation in an urban ecosystem. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, Baton Rouge, Louisiana, 4-6 October 2018.

*Luce, B.W., *T.E. Barrett, **A.G. Ponette-González**. Variability of PM_{2.5} in an urban environment: Hotspots or hot moments? Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Baton Rouge, Louisiana, 4-6 October 2018. **Award: 1st place** in Undergraduate Paper Student Competition (Honor's thesis research co-directed by **A.G. Ponette-González**).

*Pitre, C., *A. Lee, **A.G. Ponette-González**; D. Doherty, J.A. Johnson, M. Fry. Bird feathers as biomonitors of soot pollution. Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Baton Rouge, Louisiana, 4-6 October 2018. **Award: 2nd place** in Undergraduate Poster Student Competition (Undergraduate research directed by **A.G. Ponette-González**).

*Rindy, J.E., **A.G. Ponette-González**, *T.E. Barrett, *B.W. Luce, R.J. Sheesley. Urban trees as sinks for soot: Elemental carbon retention on leaves and litterfall flux to soil. Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Huntsville, Texas, 25-27 October 2017. **Award: 2nd place** in Graduate Paper Student Competition. (Thesis research directed by **A.G. Ponette-González**).

*Luce, B.W., *T.E. Barrett, **A.G. Ponette-González**. Urban cyclist exposure to fine particle pollution in a rapidly growing city. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, Huntsville, Texas, 25-27 October 2017. **Award: 1st place** in Undergraduate Poster Student Competition. (Honor's thesis research co-directed by **A.G. Ponette-González**).

Ponette-González, A.G., *J.D. Collins, T.E. Gill, G. Glass, K.C. Weathers. It's raining dust: Wet dust deposition at two Texas sites. Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Denton, Texas, 20-21 October 2016.

*Rowen, Z., **A.G. Ponette-González**. Are streams protected? Outcomes of environmental governance. Paper presented at the Southwestern Division of the American Association of Geographers Meeting, Denton, Texas, 20-21 October 2016.

*Rindy, J.E., *T.E. Barrett, **A.G. Ponette-González**. Removal of atmospheric black carbon by urban trees. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, Denton, Texas, 20-21 October 2016.

*Edington, P., **A.G. Ponette-González**. Rainfall interception by urban tree canopies in Denton, Texas. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, Denton, Texas, 20-21 October 2016.

*Krupala, K., *W. Primrose, *T.E. Barrett, **A.G. Ponette-González**. Residents' perceptions of urban tree benefits and problems in the City of Denton, TX. Poster presented at the Southwestern Division of the American Association of Geographers Meeting, Denton, Texas, 20-21 October 2016.

*Bailey, J., **A.G. Ponette-González**, C.P. Arango. Effect of western spruce budworm on throughfall carbon, nitrogen, and phosphorus fluxes in a central Washington forest. Poster presented at the Southwestern Division of the Association of American Geographers Meeting, San Antonio, Texas, 4-7 November 2015.

*León, S., **A.G. Ponette-González**. Wet dust deposition at the Lyndon B. Johnson National Grasslands. Poster presented at the Southwestern Division of the Association of American Geographers Meeting, San Antonio, Texas, 4-7 November 2015.

*Dunn, I. Agricultural and residential land-use effects on North Eastern Cross Timbers forest structure and composition. Paper presented at the Southwestern Division of the Association of American Geographers Meeting, Albuquerque, New Mexico, 23-25 October 2014. **Award:** 2nd place in Graduate Student Paper Student Competition. (Thesis research directed by **A.G. Ponette-González**).

*Gray, A.E., **A.G. Ponette-González**. Importance of two understory hosts of *Phytophthora ramorum* in forest edge vs. interior habitat in a coast redwood forest in Soquel, California. Paper presented at the Southwestern Division of the Association of American Geographers Meeting, Nacogdoches, Texas, 24-26 October 2013.

*Griffith, K., **A.G. Ponette-González**, L.M. Curran. Effects of vegetation exposure and canopy structure on small-scale variation in atmospheric deposition inputs to a mixed conifer forest in California. Paper presented at the Southwestern Division of the Association of American Geographers Meeting, Nacogdoches, Texas, 24-26 October 2013.

*Patel, I., **A.G. Ponette-González**. Structure, composition and distribution of forests in the Cross Timbers Ecotone in Denton, Texas. Poster presented at the Southwestern Division of the Association of American Geographers Meeting, Nacogdoches, Texas, 24-26 October 2013.

*Griffith, K., **A.G. Ponette-González**, L.M. Curran. Spatio-temporal variability in atmospheric wet deposition across Borneo: biomass burning, ENSO, and urbanization. Poster presented at the Southwestern Division of the Association of American Geographers Meeting, Las Cruces, NM, 25-27 October 2012.

Ponette-González, A.G., K.R. Young. Seedling regeneration above a tropical treeline in northern Peru. Paper presented at the Southwestern Division of the Association of American Geographers Meeting, Austin, TX, 10-11 November 2011.

Ponette-González, A.G. Shade coffee plantations: Are they economically sustainable? Paper presented at the Southwestern Division of the Association of American Geographers Meeting, Ft. Worth, TX, 14-17 November 2001.

Professional Development

Strategies for Responding to Harassment and Improving Workplace Climate, American Geophysical Union Fall Meeting, 2019.

Fostering Diverse, Inclusive, and Equitable Communities in Geoscience Field Experiences, American Geophysical Union Fall Meeting, 2019.

Establishing and Sustaining an Undergraduate Research Program, American Geophysical Union Fall Meeting, 2019.

Make Your Course More Effective and Societally Relevant, American Geophysical Union Fall Meeting, 2019.

Teaching

University of Utah

CMP 5610/6610, Urban Ecology

University of North Texas

GEOG 5700: Global Environmental Change (graduate only)

GEOG 5960: Ecosystems: Structure, Function, Services (graduate section)

GEOL 4710: Ecosystems: Structure, Function, Services (undergraduate)

GEOG 2180: Geosystems, Environment, and Society (undergraduate)

GEOG 1710: Earth Science (undergraduate)

Thesis and Dissertation Directorships at UNT (terminal MS program)

Since 2011, I have served as: (1) primary advisor to three postdoctoral fellows, 14 master's students, one post-baccalaureate student, eight undergraduate research fellows (Honor's, URF, TAMS), and one high school student researcher; (2) committee member on eight doctoral, six master's, and one undergraduate committee; and (3) mentor to 18 undergraduate student interns and assistants.

Postdoctoral Supervisor

Tate Barrett, Ph.D., Postdoctoral Scholar, Barrett Environmental, LLC

Matthew LaFevor, Ph.D., Assistant Professor, Department of Geography, University of Alabama

Aline Jaimes-Hernández, Ph.D., Research Associate, Ecosystem Science and Management, Texas A&M AgriLife Research

M.Sc. Thesis Advisor/Professional Project Advisor

Current

1. Talon Roberts, MCMP, Department of City & Metropolitan Planning
2. Jasmine García, MCMP, Department of City & Metropolitan Planning
3. Kate Ades, MCMP, Department of City & Metropolitan Planning

Completed

1. Savannah Thomas, M.S., *Particulate matter filtration by urban vegetation*, graduated 2023.
2. Jennifer Ellis, M.Sc. Thesis, *Particulate matter accumulation on rock pigeon (*Columba livia*) feathers*, graduated 2021.
3. Thomas Williamson, M.Sc. Thesis, *Wildfire impacts on rainwater chemistry and deposition across Texas during the historic 2011-2014 drought*, , graduated 2021.
4. Katherina Kang, M.Sc. Thesis, *Soil carbon accumulation in an urban ecosystem: canopy cover and management effects*, graduated 2020.
5. Jenna E. Rindy, M.Sc. Thesis, *Urban trees as sinks for soot: Deposition of atmospheric elemental carbon to oak canopies and litterfall flux to soil*, graduated 2018.
6. Zachary Rowen, M.Sc. Thesis. *Are streams protected? Outcomes of environmental regulation*, graduated 2017.
7. Patrick Edington, M.Sc. Thesis. *Assessing rainfall interception by urban tree canopies in Denton Texas*, graduated 2017.
8. Jennifer Bailey, M.Sc. Thesis: *Western spruce budworm effects on throughfall C, N, and P fluxes in a Central Washington forest*, graduated 2016.
9. Ingrid Patel, M.Sc. Thesis: *Structure, composition, and regeneration of Cross Timbers forest fragments in different land-use contexts*, graduated 2015.
10. Kereen Griffith, M.Sc. Thesis: *Effects of vegetation exposure and canopy structure on small-scale variation in atmospheric deposition in a mixed conifer forest*, graduated 2014.
11. Alicia Gray, M.Sc. Thesis: *Importance and spatial distribution of *Phytophthora ramorum* host species in a coast redwood forest*, graduated 2014.

Ph.D. Committee Member

Current

1. Nick Lewis, Ph.D. Student, Cleveland State University

Completed

John South, Ph.D. Candidate, Environmental Science, UNT.

Kaitlin Stewart, M.S. Candidate, Geography and the Environment, UNT.

Jared Williams, Ph.D. Candidate, Environmental Science, UNT, May 2019.

Kelly Albus, Ph.D., Environmental Science, UNT, Oct 2018.

Joe Collins, Ph.D., Geological Sciences, University of Texas at El Paso, Dec 2016.

Reed Underwood, M.Sc. Geography and the Environment, UNT, Dec 2016.
Michelle Green, Ph.D. Biology, University of Texas at Arlington, August 2016.
Sarah Schulwitz, Ph.D., Environmental Science, UNT, May 2016.
Julie Parker, M.Sc., Geography, UNT, 2015.
Patricia Alexandre de Souza, Ph.D., Geochemistry, Universidade Federal Fluminense, Brazil, 2013.
Winston Zach, M.Sc., Geography, UNT, 2013.
Peter Crislip, M.Sc., Geography, UNT, 2013.
Haijian Liu, M.Sc., Geography, UNT, 2013.

National Science Foundation Research Experience for Undergraduate and Graduate Researchers

Rylee Babino, NSF Research Experience for Undergraduate Students, 2023.
Savannah Thomas, NSF Research Experience for Graduate Students, 2022
Molly Burke, NSF Post-Baccalaureate Student Research Experience, *Soil black carbon in urban ecosystems*, 2021.

Undergraduate Honor's Thesis Advisor

Current

Emma Glende, Undergraduate Honor's Student and Undergraduate Research Opportunity Fellow (mentor: **A.G. Ponette-González**, *Tree preferences in Salt Lake City's urban forest*).

Completed

Brett W. Luce, Undergraduate Honor's Student, *Mapping and measuring PM_{2.5} concentrations in a rapidly growing urban area: a student cyclist perspective*, graduated 2018.

Undergraduate Research Fellow/Honor's Summer Research Fellow Faculty Mentor

Rylee Babino, Honor's Summer Research Fellow, *The rise of digital tools in urban forestry*.
Eva Dwelle, Honor's Summer Research Fellow
Cody Kimpton, Undergraduate Research Fellow, *Total particulate matter accumulation by local tree species*.
Shritha Gayathri, Texas Academy of Mathematics and Science, *Urban air pollution effects on spectral reflectance of tree leaves*.
Claire Pitre, Undergraduate Research Fellow, *Birds as biomonitors of soot pollution*, graduated May 2019.

Undergraduate Student Mentoring (students mentored by Ponette-G)

Sarah Pettyjohn, B.S. Geography and the Environment, NSF REU Summer 2022.
Brand Richter, B.S. Geography and the Environment, Undergraduate research assistant.
Roman Rangel, B.S. Geography and the Environment, Undergraduate research assistant.

Michael Matthews, B.S. Geography and the Environment.
Savannah Thomas, B.S. Ecology for Env Science, Undergraduate research assistant.
Jacob Daniels, B.S. Engineering, Undergraduate research assistant.
Matthew Thompson, B.S. Geography and the Environment, Undergraduate student intern.
Kate Landers, B.S. Geography and the Environment, Undergraduate research intern.
Destinee Williams-Blackshear, B.S. Geography and the Environment, Undergraduate student intern.
Cassidy Winter, B.S. Geography and the Environment, Undergraduate student intern.
Katie Krupala, B.S. Geography and the Environment, Undergraduate student intern.
William Primrose, B.S. Geography and the Environment, Undergraduate student intern.
Caitlin Bradford, B.S. Geography, Research assistant.
Marcio DaSilva, B.S. Geography, Field technician in Brazil, 2013-2014.
Joshua Alaniz, B.S. Geography, accepted to Harvard Forest Research for Undergraduate Experience, summer 2014.
Andres Zorrilla, B.A. Business, awarded Hispanic Scholarship Fund (2012, 2014).
Joanna Blaszcak, B.S. Environmental Science, Assistant Professor, U. of Nevada at Reno.

High School Student Mentor

Tulasi Baruri, Frisco Independent School District, Independent Study and Mentorship Program Mentor (2016).

External Reader

Dwi Astiani, Ph.D. Yale University School of Forestry and Environmental Studies.
Ansley Grider, Kenyon College, External Examiner

Service

Professional Service

Journal Editorial Board

Review Editor, *Frontiers in Water* – Water and Critical Zone (2021-present)

- Editor for “Emerging Talents in Water Science: Water and Critical Zone 2021/22”.

Editorial Advisory Board Member, *Progress in Physical Geography* (one of 25; 2020-present)

Review Editor, *Frontiers in Forests and Global Change* (2022-present)

Panelist

Environmental Protection Agency, Clean Air Scientific Advisory Committee Particulate Matter Panel (2021-2022)

Environmental Protection Agency Clean Air Scientific Advisory Committee Ozone Panel (2022-2023)

Environmental Protection Agency Clean Air Scientific Advisory Committee NOx/SOx/PM Panel (2023)

National Science Foundation, CNH, CNH2, DISES, LTER, UROL (2010, 2012, 2014-2023).

National Science Foundation, Geography and Spatial Sciences Senior Panel (2018).

National Science Foundation, Biological Sciences (2014).

Ad-hoc reviewer

Funding agencies: NSF IUSE (2019), Advisory Group for Research Evaluation, Pontificia Universidad Católica del Perú (2018), NSF Coupled Human and Natural Systems (2011, 2012, 2014, 2017), NSF CNH2 (2020), NSF Geography and Spatial Sciences (2010, 2012, 2016, 2018), NSF Office of International Science and Engineering (2013), NSF Hydrologic Sciences (2014), NSF Geomorphology and Land Use Dynamics (2016), NSF Postdoctoral Fellowships (2015).

Journals: *Aerosol and Air Quality Research, Aeolian Research, Agricultural and Forest Meteorology, Arctic, Antarctic, and Alpine Research, Atmospheric Environment, Biodiversity and Conservation, Biogeochemistry, Biotropica, British Journal of Applied Science and Technology, Catena, Chemosphere, Ecología en Bolivia, Ecohydrology, Ecological Indicators, Ecosphere, Environmental Monitoring and Assessment, Environmental Research Letters, Environmental Science & Technology, Global Change Biology, Hydrology and Earth Systems Science, Journal of Aerosol Science, Journal of Geophysical Research-Atmospheres, Journal of Geophysical Research-Biogeosciences, Journal of Hydrology, Journal of Latin American Geography, Land Degradation & Development, PLoS ONE, Science of the Total Environment, The Southwestern Geographer, Water Resources Research, Wires Water.*

Books: Ecological Studies (Springer), Fundamentals of Ecosystem Science (Elsevier), Perspectivas Socio-Ecológicas, Actividades Productivas y Cambios Globales en América Latina.

Competitive Fellowships: DISCCRS (2011), Association of American Geographers Latin American Specialty Group (2009), SWAAG Undergraduate and Graduate Paper Competition (2011, 2016).

Conference Service

Session organizer and chair, Association of American Geographers Annual Meeting (2010, 2011, 2013-2015, 2017).

Session organizer and chair, Ethnobiology Conference (2013), Southwestern Division of the Association of American Geographers Annual Meeting (2011, 2016).

Conference organizer, 20th Annual Doctoral Student Conference, Yale School of Forestry and Environmental Studies, New Haven, Connecticut (2004).

Conference organizer, Environmental Forum, United States International University (1997).

Society Service

Local coordinator, Southwestern Division of the American Association of Geographers GeoBowl (2016).

Board member, Conference of Latin Americanist Geographers (2010-2013).

Member, American Association of Geographers (2009-2019), American Geophysical Union (2016-present), Conference of Latin Americanist Geographers (2005-2016), Society for the Advancement of Chicanos & Native Americans in Science (2009, 2013, 2015, 2020), Southwestern Division of the American Association of Geographers (2011-present).
Secretary, Ecological Society of America Mexico Chapter (2006-2008).

American Association of Geographers

American Association of Geographers Honors Committee B (2021-2024).
American Association of Geographers Committee on the Status of Women in Geography (2015-2018).
American Association of Geographers Excellence in Mentoring Award subcommittee (2017).

University of Utah

Reviewer, University Graduate Fellowship (2023)

University of Utah College of Architecture & Planning

Member, College, Research, Promotion, Tenure Committee (2023-present)
Reviewer, College, Research Incentive Seed Grant Program (2024)
Member, CMP Faculty Search Committee (2023)
Member, CMP PhD Admissions Committee (2023-2024)
Member, CMP Research, Promotion, Tenure Committee (2023-present)

Natural History Museum of Utah

Reviewer, Margo Silvester Scholarship (2023)
Member, Lecture Series Committee (2023)
Outreach, Copper Club Soiree (2023)
Outreach, Behind the Scenes (2023)
Outreach, Stay Curious Utah! (2024)

University of North Texas

Appointed Member, Vice President for Research Committee (2019-2021).
Panelist, UNT Women in STEM (March 2022).
Representative, Society for the Advancement of Native Americans and Chicanos in Science (SACNAS) Annual Conference (2020, 2013).
UNT Panelist, NSF Career Award Workshop (2019).
UNT Participant, Refiguring Academia (2019).
Speaker, External Competitive Funding Boot Camp (2018).
Panelist, The Research Apprenticeship of the Graduate Student, McNair Scholars Conference (2018).

University of North Texas College of Liberal Arts and Social Sciences

Appointed Member, CLASS Inclusive Excellence Committee (2021-2022).

Appointed Member, CLASS Faculty Council (2019-2021).

University of North Texas Department of Geography and the Environment

Promotion and Tenure Committee (2021-2023).

Physical Geography Lecturer Search Committee (2019-2020).

Undergraduate Committee (2019-2021).

Crosscurrents Seminar Series coordinator (2014-2017, 2019).

Promotion and Tenure Committee (2017-2018).

Graduate Committee (2015-2018, Fall 2019).

Organizer “Designing Maps to Tell Better Stories” (Derek Watkins, New York Times Graphics Editor (Fall 2016)

Website content coordinator and news editor (2011-2017).

Curriculum committee (2014-2016).

Organizer graduate student orientation (2013, 2017).

Search Committee Member, Assistant Professor of Economic Geography Search (2013).

Local Community Service and Outreach

Wilkes Center for Climate Science and Policy, Talking Climate Podcast (2024)

Member, University Neighborhood Partners Environmental Institution Group (2023)

Invited speaker, Friends of LLELA (January 2023)

Invited speaker, Society for Ecological Restoration (April 2022)

Invited speaker, Flower Mound City Council (March 2022).

Invited speaker, Native Plant Society (July 2020).

Invited speaker, Women in STEM Day, Northwest Independent School District (Feb 2020).

Invited speaker, Elm Fork Texas Master Naturalist Chapter Meeting, “Urban Oak Trees Provide Air Quality and Climate Benefits in Denton, Texas” (August 2019).

Invited speaker, Denia Neighborhood Group Meeting, “Trees are Urban Air Filters” (2019).

Invited speaker, Professional Grounds Management Society (2018).

Invited speaker, Keep Denton Beautiful Meeting, “Urban Trees as Sinks for Soot” (2018).

Invited speaker, Denia Neighborhood Group Meeting, “Benefits of City Trees for Climate and Air Quality” (2018).

Invited speaker, Native Plant Society, “Cross Timbers Trees: Urban Air Filters?” (2016).

Board of Directors, Denton Community Market (2014-2016).

Languages

Fluency in English, Spanish, French