James Aaron Hogan
Preferred name: Aaron
ORCiD: 0000-0001-9806-3074

phone: (970) 485-1412
email: james.hogan@agnet.tamu.edu
website: www.jamesaaronhogan.com

Curriculum Vitae[§]

Research Interests

Ecology, Forests (especially tropical forests), Plant Ecophysiology (especially roots), Disturbance, Carbon Cycle, Plant-Soil Interactions, Functional Traits, Statistical Modeling, Open Science.

Education

Ph.D. Biology – Florida International University – Miami, FL 2021
Dissertation: Functional Strategies of Tree Fine-Roots in Relation to the Soil Environment and Microbiome: Variation in Root Morphology, Tissue Chemistry and Physiology.

M.S. Ciencias Ambientales – Universidad de Puerto Rico-Río Piedras – San Juan, PR 2015
Thesis: Revisiting the Relative Roles of Land-Use and the Environment in Subtropical Wet Forest: 21-years of Dynamics from the Luquillo Forest Dynamics Plot, Puerto Rico.

B.S. Ecology & Biodiversity – University of Denver – Denver, CO 2011
Minors in Chemistry and Sociology.

Study Abroad

Organization for Tropical Studies – Sistemática de Plantas Tropicales (en español) Summer 2015
The School for Field Studies – Kenya & Tanzania Wildlife Management Program Fall 2011

Positions Held

Assistant Professor – Department of Ecology & Conservation Biology, Texas A&M University Aug 2025 – present

Post-doctoral Researcher – Department of Biology, Colorado State University Jan 2025 – Aug 2025
Visiting Scholar in Anping Chen's Lab.

USDA Forest Service ORISE post-doctoral fellow – International Institute of Tropical Forestry Aug 2023 – Jan 2025
Multiscale Analysis of Hurricane Effects on Tropical Forests (advisor: Eileen Helmer)

Post-doctoral Researcher – Department of Biology, University of Florida Jan 2022 – Aug 2023
Jeremy Lichstein's Lab: USDA research grant – Using FIA data to study changes in US forest dynamics

Auxiliar de Investigaciones II – Luquillo LTER, Departamento de Ciencias Ambientales, May 2015 – Sept 2016
Universidad de Puerto Rico-Río Piedras
Data analyst: Interannual patterns of tree reproduction in the Luquillo Forest Dynamics Plot.

Publications

Google Scholar profile: https://scholar.google.com/citations?user=cPdsOVAAAAAJ&hl=en
Research Gate profile: https://www.researchgate.net/profile/J-Aaron-Hogan?ev=hdr_xprf

64. Arbuscular mycorrhizal association regulates global root-seed coordination. Yang, Q., Guo, B., Lu, M., Liu, Y., Kardol, P., Reich, P.B., Bardgett, R.D., Cornelissen J.H.C., Kraft, N.B., Diaz, S., Wright, I.J., He, N., **Hogan, J.A.**, Pei, Y., Han, Q., Li, Z., Wang, Z., Wanqin, Y., Ding., J., Yang, Z., Wu, H., 2025

Carmona, C.P., Valverde-Barrantes, O.J., Li, D-Z., Cai, J., Zeng, H., Zhang, Y., Ren, W., Zhao, Y., Yang, X., Fan, G., Wang, J., Li, G., Kong, D. N*ature Plants*. doi:10.1038/s41477-025-02089-4

63. How does biodiversity thrive in phosphorus-limited tropical forests? A Review (2025) Linger, E., Corlett, R.T., **Hogan, J.A.**, Long, W., *Journal of Forestry Research* (*in press*). 2025

62. Challenges and strategic recommendations for enhancing quantification and projection of forest carbon dynamics (2025) Munro, H.L., Woodall, C. W., Anderegg, W.R.L., Atkins, J. W., Beier, C.M., Bullock, B.P., DeLsyer, K., Diaz, D.D., Eskelson, B., Evans, M.E.K., Foppert, J.D., Foster, B.C., Fox, T.R., Frank, J.M., Froese, R.E., Gaines III, G.C., Gould, P., Hailemariam, T., Hall, E.S., Heckman, K.A., Helmer, E.H., **Hogan, J.A.**, Hoover, C.M., Kinane, S.M., MacFarlane, D.W., Murray, L.T., Paradis, G., Poudel, K.P., Prisley, S.P., Rakestraw, J.L., Restrepo, H., Sharma, A., Shaw, J.D., Smith-Mateja, E., VanderSchaaf, C.L., Vatandaslar, C., Weiskittel, A.R., Yang, S-I. *Journal of Forestry Research* (*in press*). 2025

61. Janzen's hypothesis revisited for soil microorganisms: bacteria align more strongly with its postulates than fungi. Zhang, Y., **Hogan, J.A.**, Crowther, T., Song, M., Xu, S., Sun, H. *Global Ecology and Biogoegraphy. doi: 10.1111/ecog.07049* 2025

60. Cyclones reduce growth and mortality differences between liana-laden and liana-free trees in Belize. Cayetano, D., Cho, P., **Hogan, J.A.**, Magee, L., Riley, S., Korol, Y., Bohlman, S., Machado, S., Putz, J., Romero, C., Vogel, J., Johnson, D.J. *Journal of Ecology doi: 10.1111/1365-2745.70101*. 2025

59. Non-native tree invaders lead to declines in native tree species richness (2025) Liu, Y., Lichstein, J., Scheiner, S.M., **Hogan, J.A.**, Guralnick, R.P., Soltis, D.E., Soltis, P.E., Thomas, M.B. *PNAS* 122(17):e2424908122. 2025

58. Anthromes and forest carbon responses to global change. Hogan, J.A., Lichstein, J.W., Helmer, E.H., Craig, M.E., Fricke, E., Venrich, V., Kannenberg, S.A., Koven, C.D., Klein Glodewjik, K., Lapola, D. M., Li, Y., Malhi, Y., Quinn, J., Roe, S., Terrer, C., Vilanova, E., Walker, A.P., Zhu, K. & Ellis, E.C. *Plants People Planet*. 2024

57. Seed production and 22 years of climatic changes in an everwet Neotropical forest. Vleminckx, J., **Hogan, J.A.**, Metz, M., Comita, L., Queenborough, S., Wright S.J., Valencia, R., Zambrano, M., Garwood, N. *Ecology Letters* 28,e70019. 2024

56. Decoupled response of soil microbial diversity and ecosystem functions to successive degenerative process in alpine pioneer community. Zhang, Y., **Hogan, J.A.**, Ye, Y., Liu, X., Song, M., Chen, J., Sun, H. *Science China Life Sciences* :1-16. 2024

55. Land conflicts from overlapping claims in Brazil's rural environmental registry. Furmuro, P., Yu, J., **Hogan, J.A.**, Tavares de Carvalho, L.M., Brito, B., Lambin, E.F. *PNAS* 121(33):e2407357121. 2024

54. Intraspecific variation in Janzen-Connell effect is mediated by stress and plant-soil feedbacks. Pan, L., **Hogan, J.A.**, Song, X., Zhang, W., Zhou, H., Chen, Z., Yang, J., Cao, M. *Ecology & Evolution* 14:e11614. 2024

53. Biodiversity and productivity in eastern USA forests. Liu, Y., **Hogan, J.A.**, Lichstein, J.W., Guralnick, R.P., Soltis, D.E., Soltis, P.S., Scheiner, S.M. *PNAS* 121(4):e2314231121. 2024

52. Survival, growth, and functional traits of tropical wet forest tree seedlings across an experimental soil moisture gradient in Puerto Rico. Matlaga, D., Lammerant, R., **Hogan, J.A.**, Uriarte, M., Rodriguez, C., Zimmerman, J., Muscarella, R. *Ecology & Evolution* 14:e2314231121. 2024

51. Tropical forests & global change: biogeochemical responses and opportunities for cross-site comparisons, an organized INSPIRE session at the 108th Annual Meeting, Ecological Society of America, Portland, Oregon, USA, August 2023. Cusack, D.F., Reed S., Andersen K. M., Damla Cinoğlu, D., Craig, M. E., Dietterich, L.E., **Hogan, J.A.**, Holm, J.A., Nottingham, A.T., Ostertag, R. Soper, F., Wood, T.E., Wong, M.Y. *New Phytologist* 241:1922-1926 2024

50. Climate change determines the sign of productivity trends in US forests. **Hogan, J.A.**, Domke, G.M., Johnson D.J. & Lichstein, J.W. *PNAS* 121:e2311132121. 2024

49. Drivers and mechanisms that contribute to microbial β-diversity patterns and range sizes in mountains across a climate variability gradient. Zhang, Y., **Hogan, J.A.**, Crowther, T.W., Xu, S., Zhao, R., Song, P., Cui, M., Song, X., Cao, M., Yang, J. *Ecography* 2024:e07049. 2023

48. Decreasing flower production coincides with warmer and more humid atmospheric conditions a Western Amazonian forest. Vleminckx, J., **Hogan, J.A.**, Metz, M.R., Comita, L.S., Queenborough, S.A., Wright, S.J., Valencia, R., Zambrano, M., Garwood, N.C. *New Phytologist* 241:1035-1046. 2023

47. Responses of a common tropical epiphyte, *Asplenium nidus*, to changes in water and nutrient availability. Chen, X.-Z., **Hogan, J.A.**, Wang, C.-P., Wang P.-L. & Lin, T.-C. *AOB Plants* plad076. 2023
46. Defining the extent of suitable habitat for the endangered Maple Leaf Oak (*Quercus acerifolia*). Subedi, S.C., **Hogan, J.A.** & Coggeshall M.V. *Frontiers in Biogoegraphy* 15:e58763. 2023
45. Intraspecific trait variation and species functional turnover in successional tropical forests: assessing gap-filling for community weighted means. **Hogan, J.A.**, Xu, H. & Baraloto, C. *Plant Ecology* 224:463-447. 2023
44. Roots, litter, and seasonal drought together inhibit plant growth in the herbaceous layer in a subtropical moist forest of southwestern China. Liu, X., Li, Y., Kong, L., Lodge, D.J., **Hogan, J.A.** & Wang, C. *Forests* 14:217. 2023
43. Functional variability in specific root respiration translates to slight differences in belowground CO_2 efflux in a temperate deciduous forest. **Hogan, J.A.**, Labbé, J.L., Carell, A.A., Franklin, J., Hoyt, K.P., Valverde-Barrantes, O.J., Baraloto, C. & Warren J.M. *Geoderma* 432:116414. 2023
42. Root-associated fungal communities are structured more by soil environment than by plant-host functional traits in a Chinese tropical forest. **Hogan, J.A.**, Jusino, M., Smith, M.E., Corrales, A., Song, X., He, Y., Yang, J., Cao, M., Valverde-Barrantes, O.J. & Baraloto, C. *New Phytologist* 238:1849-1864. 2023
41. Future changes in habitat availability for two specialist snake species in the imperiled pine rocklands of South Florida, USA. Subedi, S., Walls, S.C., Barichivich, R., Ross, M.S., **Hogan, J.A.** & Tupy, J. *Conservation Science and Planning* e12802. 2022
40. Intraseasonal interactive effects of successive typhoons characterize canopy damage of forests in Taiwan: a remote sensing-based assessment. Peereman, J., Lin, T.C. & **Hogan, J.A.** *Forest Ecology and Management* 521:120430. 2022
39. Solar radiation and soil moisture drive tropical forest understory response to experimental and natural hurricanes. **Hogan, J.A.**, Sharpe J.M., Van Beusekom A., Stankavich, S., Matta Carmona S., Bithorn, J., Torres-Diaz, J., Gonzalez, G., Zimmerman J.K. & Shiels A.B. *Ecosphere* 13(7):e4150. 2022
38. Mycorrhizal symbiosis pathway and edaphic fertility frame root economics space among tree species. Yan, H., Freschet, G., Wang, H., **Hogan J.A.**, Li, S., Valverde-Barrantes, O.J., Fu, X., Wang, R., Jiang, L., Dai, X., Meng, S., Yang, F., Zhang, M. & Liang K. *New Phytologist* 234(5):1639-1653. 2022
37. A universal pattern of trade-offs between ecosystem resistance and resilience to tropical cyclones. Patrick, C., Kominoski, J., McDowell, W.H., Branoff, B.L., Lagomasino, D., Leon, M., Hensel, E., Hensel M., Strickland, B., Aide T.M., Armitage, A., Campos-Cerqueria, M., Congdon V., Crowl, T., Devlin D., Douglas, S., Erisman, B., Faegin, R., Geist, S., Hall, N., Hardison, A., Heithaus, M., **Hogan, J.A.**, Hogan, J.D., Kinard, S., Kiszka, J., Lin T-C., Lu, K., Madden, C., Montagna, P., O'Connell, C., Profitt, E., Resse B.K., Reustle, J., Robinson, K., Rush, S., Santos, R., Schnetzer, A., Smee, D., Smith, R., Starr, G., Stauffer, B., Walker, L., Weaver, C., Wetz, M., Whitman, E., Zue, E. & Zou, X. *Science Advances* 8:abl9155. 2022
36. Biodiversity stabilizes primary productivity through compensatory effects under warming conditions. Li, C., Jiang, W., Wang, Z., **Hogan, J.A.**, Luo, W., Han, X., Chu, C. & Fang. S. *Journal of Vegetation Science* 33:e13124. 2022
35. Effect of canopy openness on seedling survival and growth after selective logging in a monodominant lowland swamp forest of Costa Rica. Valverde-Barrantes O.J., **Hogan J.A.**, Rocha, O.J. *Journal of Tropical Forestry Research* 34:34-47. 2022
34. Water levels primarily drive variation in photosynthesis and nutrient use in a scrub Red Mangrove forest of the southeastern Florida Everglades. **Hogan, J.A.**, Castañeda-Moya, E., Lamb-Wotton, L., Troxler, T. & Baraloto C*. Tree Physiology* tpab151. 2022
33. Disturbance frequency, intensity, and forest structure modulate cyclone-induced changes in mangrove forest canopy cover. Peereman, J., **Hogan J.A.** & Lin T-C. *Global Ecology and Biogeography* 31:37-50. 2021
32. A culture of conservation: how an ancient forest plantation turned into an old growth forest reserve – the story of the Wamulin forest. Yang, Z-J., Zheng, Q-R., Zhou, M-X., Zeng H-D., **Hogan, J.A.** & Lin T-C. *People & Nature* 3:1014-1024. 2021
31. Cold wave-induced reduction in NDII and ChlRE for northwestern Pacific mangroves varies with latitude and climate history. Peereman, J., **Hogan J.A.** & Lin T-C. *Remote Sensing* 13:2732. 2021

30. The physiological acclimation and growth response of *Populus trichocarpa* to warming. **Hogan J.A.**, Baraloto C., Ficken C, Clark M.D., Weston D. & Warren, J.W. *Physiologia Plantarum* 173:1008-1029. 2021
29. A reporting format for leaf-level gas exchange data and metadata. Ely, K., Rogers, A. *et al.* (**+ 80 authors including J.A. Hogan**). *Ecological Informatics* 61:101232. 2021
28. Evidence of elemental homeostasis in fine root and leaf tissues of saplings across a fertility gradient in tropical montane forest in Hainan, China. **Hogan, J.A.**, Valverde-Barrantes, O.J., Tang, W., Ding, Q., Xu, H. & Baraloto, C. *Plant & Soil* 460:625-646. 2021
27. Morphological variation in fine root systems and leaves in primary and secondary tropical forest of Hainan Island, China. **Hogan, J.A.**, Valverde-Barrantes O.J., Ding Q., Xu H. & Baraloto C. *Annals of Forest Science* 77:79. 2020
26. Soil nitrogen concentration mediates the relationship between leguminous neighbor diversity in tropical forests. Xu, H., Detto, M., Fang, S., Chazdon, R., Li, Y., Hau, B.C.H., Fischer, G.A., Weiblen, G.D., **Hogan, J.A.**, Zimmerman, J.K., Uriarte, M., Thompson, J., Lian, J., Cao, K., Kenfack, D., Alonso, A., Bissiengou, P., Memiaghe, H.R, Valencia, R., Yap, S.L., Davies. S.J., Mi, X. & Yao, T.L. *Nature Communications* 3:317. 2020
25. Assessing typhoon-induced canopy damage using vegetation indices in the Fushan Experimental Forest, Taiwan. Peereman, J., **Hogan, J.A.** & Lin, T-C. *Remote Sensing* 12:1652. 2020
24. Precipitation influences on the net primary productivity of a tropical seasonal rainforest in Southwest China: A 9-year case study. Linger, E., **Hogan, J.A.**, Hu, Y-H., Cao, M., Zhang, W.F., & Yang, X.F. *Forest Ecology and Management* 467:118153. 2020
23. A research framework to integrate cross-ecosystem responses to tropical cyclones. **Hogan J.A.**, Feagin, R.A., Starr. G., Ross. M., Lin, T-C., O'Connell C., Huff, T.P., Stauffer, B.A., Robinson K.L., Chapela-Lara, M., Xue, J., Kiel Reese, B., Geist, S.J., Whitman, E.R., Douglas, S., Congdon, V.M., Reustle, J.W., Smith, R.S., Lagomasino, D., Strickland, B.A., Wilson, S.A., Profitt, C.E., Hogan, D.J., Branoff, B.L., Armitage, A.R., Rush, S.A., Santos, R.O., Campos-Cerquiera, M., Montagna, P.A., Erisman, B., Walker, L., Silver. W.L., Crowl, T.A., Wetz, M., Hall, N., Zou, X., Pennings, S.C., Wang, L-J., Change, C-T., Leon, M., McDowell, W.H., Kominoski, J.S. & Patrick C.J. *BioScience* 70:477-489. 2020
22. Tropical Cyclone Ecology – a scale-link perspective. Lin, T-C., **Hogan, J.A.** & Chang C-T. *Trends in Ecology and Evolution* 35:594-604. 2020
21. Landscape representation by a permanent forest plot and alternative plot designs in a typhoon hotspot, Fushan, Taiwan. Peereman, J., **Hogan, J.A.** & Lin T-C. *Remote Sensing* 12:660. 2020
20. *Thismia jianfenglingensis* (Thismiaceae), a new species of fairy lantern from Hainan Island, China. Xu, H., Yang, H., Lin, M., Corrales, A., **Hogan, J.A.**, Li, Y., Fang, S. *Phytotaxa* 429:179-185. 2020
19. The Open Traits Network: Using Open Science principles to accelerate trait-based science across the tree of life. Ghallager, R. with 53 co-authors including **J.A. Hogan**. *Nature Ecology & Evolution* 4:294-303. 2020
18. TRY plant trait database - Enhanced coverage and open access. Kattge, J., Bönisch, G., Díaz, S., Lavorel, S., Prentice, I.C., Leadley, P., Tautenhahn, S. & Werner, G.D.A. *et al.* (+720 authors including **J.A. Hogan**) *Global Change Biology* 26:119-188. 2020
17. Dominant tree species shape soil microbial communities via regulating assembly processes in planted subtropical forests. Ma, H., Zhou, W., Yang, J., **Hogan, J.A.**, Xu, H., & Chen, J. *Forests* 10:978. 2019
16. Evidence for trait-based community assembly patterns in hardwood hammock forests. Subedi, S., Hogan, J.A., Ross, M., Sah, J., & Baraloto, C. *Ecosphere* 10:e02956. 2019
15. Temporal population variability in local forest communities has mixed effects on tree species richness across a latitudinal gradient. Fung, T., Chisholm, R., Anderson-Teixeira, K., Bourg, N., Brockelman, W., Brockelman, W., Bunyavejchewin, S., Chang-Yang, C-H., Chitra-Tarak, R., Chuyong, G., Condit, R., Dattaraja, H., Davies, S., Ewango, C., Fewless, G., Fletcher, C., Gunatilleke, S., Gunatilleke, N., Hao, Z., **Hogan, J.A.**, Howe, R. Hsieh, C-F., Kenfack, D., Lin, Y., Ma, K., Makana, J-R., McMahon, S., McShea, W., Mi, X., Nathalang, A., Ong, P., Parker, G., Rau, E-P., Shue, J., Su, S-H., Sukumar, R., Sun, I-F., Suresh, H., Tan, S., Thomas, D., Thompson, J., Valencia, R., Vallejo, M., Wang, X., Wang, Y., Wijekoon, P., Wolf, A., Yap, S., & Zimmerman, J.K. *Ecology Letters* 23:160-171. 2019
14. Proposing the solar energy flux hypothesis as a phenological cue in tropical trees. **Hogan, J.A.**, Nytch, C.J., Bithorn, J. & Zimmerman J.K. *American Journal of Botany* 106:1519-1525. 2019

13. Drought and the interannual variability of stem growth in an aseasonal, everwet forest. **Hogan, J.A.**, McMahon, S.M., Buzzard, V., Michaletz, S.T., Enquist, B.J., Thompson, J., Swenson, N.G. & Zimmerman, J.K. *Biotropica* 51:139-154. 2019
12. Botanic gardens are an untapped resource for studying the functional traits of tropical plants. Perez, T.M., Valverde-Barrantes, O., Bravo, C., Taylor, T.C., Fadrique, B., **Hogan, J.A.**, Pardo, C.J., Stroud, J.T., Baraloto, C. & Feeley, K. *Philosophical Transactions of the Royal Society B* 374:20170390. 2018
11. Canopy openness and topographic habitat drive seedling recruitment after snow damage in a subtropical Chinese forest. Song. X., **Hogan, J.A.**, Lin, L., Wen, H., Cao M. & Yang, J. *Forest Ecology and Management* 429:493-502. 2018
10. Understanding the recruitment response of juvenile tropical trees to logging intensity using functional traits. **Hogan, J.A.**, Hérault, B., Bachelot, B., Gorel, A., Jounieaux, M. & Baraloto, C. *Ecological Applications* 28(8): 1998-2010. 2018
9. The frequency of cyclonic wind storms determines tropical forest dynamism and functional trait dispersion. **Hogan J.A.**, Zimmerman, J.K., Thompson, J., Uriarte, M., Swenson, N.G., Condit, R., Hubbell, S., Johnson, D.J., Sun, I.F., Chang-Yang, C.H., Sheng-Hsin, S., Ong, P., Rodriguez, L., Monoy, C., Yap, S. & Davies, S.J. *Forests* 9(7):404. 2018
8. The changing nature of collaboration in tropical ecology and conservation. Perez, T.M. & **Hogan, J.A.** *Biotropica* 50(4):1-5. 2018
7. Effects of hurricane disturbance and climate oscillations on inter-annual variation in reproduction in subtropical wet forest, Puerto Rico. Zimmerman, J.K., **Hogan, J.A.**, Nytch, C.J. & Bithorn, J.E. *Ecology* 99:1402-1410. 2018
6. Biotic and abiotic drivers of the tree growth and mortality trade-off in an old-growth temperate forest. Zhu, Y., **Hogan, J.A.**, Cai, H., Xun, Y., Jiang., F. & Jin, G. *Forest Ecology and Management* 404:354-360 2017
5. Liana dynamics reflect land-use history and hurricane response in a Puerto Rican forest. **Hogan, J.A.**, Mayorquín, S., Rice, K., Thompson, J., Zimmerman, J.K. & Brokaw, N. *Journal of Tropical Ecology* 33:155-164. 2017
4. Snow damage to the canopy facilitates alien weed invasion in a subtropical montane primary forest in southwestern China. Song, X., **Hogan, J.A.**, Brown, C., Cao, M. & Yang, J. *Forest Ecology and Management* 391:275-281. 2017
3. The interaction of land-use legacies and hurricane disturbance in subtropical wet forest: Twenty-one years of change. **Hogan, J.A.**, Zimmerman, J.K., Thompson, J., Nytch, C.J. & Uriarte, M. *Ecosphere* 7:e01405. 2016
2. Land-use history augments environment-plant community relationships in a Puerto Rican wet forest. **Hogan, J.A.**, Zimmerman, J.K., Uriarte, M., Turner, B.L. & Thompson, J. *Journal of Ecology* 104:1466-1477. 2016
1. Seven-year responses of trees to experimental hurricane effects in a tropical rainforest, Puerto Rico. Zimmerman, J.K., **Hogan, J.A.**, Shiels, A.B., Bithorn, J.E., Carmona, S.M. & Brokaw, N. *Forest Ecology and Management* 332:64-74. 2014

Data Products

Also see github: https://github.com/hoganhaben

11. Fine Root Ecological Database (FRED) – v 3.0: https://roots.ornl.gov/
10. Data for Hogan *et al.* (2023) *Geoderma*: https://doi.org/10.25581/ornlsfa.025/183866
9. Data for Hogan *et al.* (2021) *Tree Physiology*: https://doi.org/10.6073/pasta/27f6332609eb1ef6d398c7855855f2e3
8. Data for Hogan *et al.* (2021) *Physiologia Plantarum*: https://doi.org/10.25581/ornlsfa.018/1617459
7. Data for Hogan *et al.* (2021) *Plant & Soil*: https://doi.org/10.6084/m9.figshare.8283593.v2
6. Data for Hogan *et al.* (2020) *Annals of Forest Science*: https://doi.org/10.6084/m9.figshare.7996328.v4
5. Data for Hogan *et al.* (2020) *BioScience*: https://github.com/hoganhaben/A_framework_for_studying_cyclones
4. Data for Hogan *et al.* (2019) *Biotropica*: https://portal.edirepository.org/nis/mapbrowse?packageid=knb-lter-luq.203.3
3. Data for Hogan *et al.* (2018) *Ecological Applications*: https://datadryad.org/stash/dataset/doi:10.5061/dryad.0m27218
2. Data for Perez & Hogan (2018) *Biotropica*: https://datadryad.org/stash/dataset/doi:10.5061/dryad.d79c4cs

1. Data for Hogan *et al.* (2017) *Journal of Tropical Ecology*: https://doi.org/10.6073/pasta/eabe6e15723324ea3938b456d5bb02c2

Teaching Experience

Graduate Teaching Assistant – Florida International University — Summer & Fall 2020, Fall 2021
General Biology II Laboratory

Graduate Teaching Assistant – Florida International University — Fall 2016, Spring 2017
Ecology Laboratory

Graduate Teaching Assistant – University of Puerto Rico – Río Piedras — 2013 – 2014
Introduction to Environmental Science.

Mentoring & Outreach

Undergraduate Research Mentor – advisor and data analysis mentor (in conjunction with Paul Fumuro) to Jevan Bhutani Yu at Stanford University — 2023

Undergraduate Research Mentor – Lichstein Lab – The physiological ecology of *Ardisia crenata*- an invasive understory plant – mentor to Sabrina Scothorn and Joel Saunders — 2022-2023

UF Carpentries – Undergraduate R workshop teacher — Fall 2022

UF Biology URAP GIAR (Undergraduate Research Assistantship Program – Grants in Aid of Research) Symposium Judge — Spring 2022

Research advisor to Master's student at Upsala University, Sweden – External advisor to Roel Lammerant (academic advisor: Bob Muscarella) — 2020 – 2021

Research support to ORAU intern at Oak Ridge National Lab. Worked closely with Lionel Collazo-Perez, undergraduate intern at ORNL (mentor: Coleen Iversen) — Fall 2019

Planting Science Student Mentor. Graduate student mentor to 9 student groups from 6 High Schools. Fielded questions and guided research projects for online science education platform for high school students. www.plantingscience.org — Fall 2017

Vermont – Puerto Rico – EPSCOR High School Student Exchange: Research on Adaptation to Climate Change, Research Experience for High Schools Students and Teachers: Guide and chauffeur for 15 high school students and 4 teachers. — Summer 2016

NSF "Bridge to the Doctorate" Undergraduate Student Mentor – Nicholas Correa-Pascuas — 2014 – 2015
Advised Undergraduate Thesis: "Comparing multivariate statistical methods, PC-ORD vs. R." Thesis presented at the 35th annual University of Puerto Rico Junior Scientific & Technical Meeting (PRISM), March 2015.

El Verde Experience for Undergraduates (REU) Mentor – Sylvette Mallorking (UPR-RP) — Summer 2015
Advised research project: "Changes in liana abundances across a gradient of past land-use in a subtropical wet forest in Puerto Rico."

El Verde REU Mentor – Katherine Walston (West Chester University, Pennsylvania) — Summer 2014
Advised research project: "Investigating the effect of land-use on woody debris deposition and carbon stocks in a subtropical wet forest of Puerto Rico."

Funding Obtained

ORISE post-doc – 1.5 years of funding (~$70,000/year) obtained for post-doc fellowship at USFS IITF. — August 2023

ESA Early Career Section Travel Grant – partial support ($300) to attend ESA 2022 Montreal — Summer 2022

FIU Dissertation Year Fellowship – two semesters of support ($8600 per semester) to finish Ph.D. dissertation — Fall 2020

Oak Ridge Institute for Science and Education (ORISE) ASTRO Fellowship – three-month fellowship to finish work at Oak Ridge National Lab. — Summer 2020

U.S. Department of Energy Science Graduate Student Research (SCGSR) Fellow – One year of Ph.D. support (~$30,000). Investigated the effects of warming on root respiration rates in *Populus trichocarpa*, in collaboration with Jeff Warren and others at Oak Ridge National Lab. March 2019

FIU Dissertation Evidence Acquisition Fellowship – One semester of support ($8300) to focus on dissertation data gathering – spent at Matthew Smith's Fungal Ecology Lab at the Department of Plant Pathology at the University of Florida November 2018

Kelly Tractor Co. student scholarship for tropical botany $500 May 2018

FIU Tropics Research Scholarship, $4000 April 2018

The Garden Club of America – Award in Tropical Botany: $5500 to investigate mycorrhizal-root trait relationships in Xishuangbanna, China. April 2018

Florida International University - Judith Parker Travel Award: Award of $500 in 2017, $600 in 2018.

Experiment.com - Crowdfunding of $5542 to fund soil analyses for the first chapter of doctoral dissertation. www.experiment.com/chinaroots doi:10.18258/9485. Summer 2017

CTFS Forest-GEO Short-term Fellowship (Smithsonian Center for Tropical Forest Science): Research and travel funds provided by CTFS via Stuart Davies for the exploration of intraspecific root trait variation across an environmental gradient in Jianfengling, Hainan Island, China ($4500). Summer 2017

US Forest Service Award AG-F430-C-15-0031 to James Aaron Hogan – Independent federal contract ($10,0000) to establish 1-Ha vegetation monitoring plots in Guayama Experimental Forest, Puerto Rico. Work completed 2015-2016, in collaboration with the USFS International Institute for Tropical Forestry (IITF) (Grizelle Gonzales & William Gould), the UPRRP Herbarium (James Ackerman, Frank Axelrod, and Fabiola Areces), and the Xiaoming Zou Soil Ecology Lab (UPRRP). Part of Xiucheng Zeng's M.Sc. thesis. Fall 2015

University of Puerto Rico Center for Science and Engineering, Research Materials Grant $3,000 2014

Fellowship: NSF LS-AMP "Bridge to the Doctorate" Cohort IX (HRD: 1139888), University of Puerto Rico – Río Piedras. ($30,000/year for two years) 2013

Elected Positions, Awards & Honors

FIU CASE (College of Arts, Sciences and Education) – Best dissertation 2022 Graduating class April 2022

Elected Position: Graduate Student Representative, Luquillo LTER. Member of SEAC: Science, Education and Advisory Committee from January 2015 – May 2016. 2014 – 2016

Paid Fieldwork Positions

Guayama Experimental Forest Vegetation Plot Establishment – US Forest Service, International Institute for Tropical Forestry (IITF) 2015 –2016

Lead independent contractor responsible for the establishment of two 1-ha forest inventory plots. Demarcation of plot boundaries followed by the systematic taxonomic inventory and mapping of all free-standing woody stems ≥ 1 cm DBH (in congruence with the Smithsonian Forest-GEO / Center for Tropical Forestry Studies protocols). Voucher specimens collected for herbarium records.

NSF Macrosystems Project in Luquillo – University of Arizona, Brian Enquist 2013 –2016

Luquillo site manager for the project. Tree core samples collected from a stratified sample of tropical trees (August 2013). Dendrometer bands installed and measured every 2 weeks. 5 Gentry-style vegetation transects of 1-Ha each censused annually within the LFDP.

NSF Macrosystems Project in Luquillo – University of Oklahoma, Michael Kaspari 2013 – 2014

Luquillo site manager for the Bento-bag decomposition experiment. Wood decomposition experiment set-up and monitored in the LFDP. Bags were collected at different time intervals, contents dried and weighed. Samples then shredded, preserved, and shipped for microbial analyses.

NEON (National Ecological Observation Network) vegetation monitoring site, Guanica, PR – Columbia University, Maria Uriarte. 2012

Tree Census Volunteer / Technician. Part of team that established of and measured a 4-ha plot in a coastal dry forest. Participated in data entry and management of field data. Helped in

the collection of functional trait data for the plant community. Installed and measured dendrometer bands on xerophytic plant species in Guanica and throughout the island.

2011 Luquillo Forest Dynamics Plot (LFDP) Tree Census – Luquillo Long-Term Ecological Research (LTER), UPR-RP 2011 – 2012

Tree Census Volunteer. Field identified neotropical plant species from various families in a subtropical wet forest. Censused diameter of stems and assessed stem damage within a 16-ha plot. Utilized database software to enter and process field data. Collected fruit and phenology data from basket seed traps. Installed plastic dendrometer bands to monitor the growth of trees.

Presentations[1]

Using FIA Data to Investigate Hurricane Disturbance and the Growth-Mortality Trade-Off of Caribbean trees. Talk given at Forest Inventory and Analysis (FIA) Science Symposium 2024. November 20, 2024

Hurricane disturbance and the growth-mortality trade-off of tropical trees. Poster presented at Ecological Society of America 2024 in Long Beach, California August 6, 2024

Examining the potential CO_2 enhancement of tree growth. Talk given at Inland Growth and Yield Meeting. Missoula, Montana May 7, 2024

Climate Change determines the sign of productivity trends in US forests. Poster presented at Ecological Society of America 2023 in Portland, Oregon August 8, 2023

Tropical Cyclone Ecology of Tropical Forests and Ecosystems. Departmental Seminar: Environmental Sciences Department of the University of Puerto Rico – Rio Piedras April 27, 2023

Climate Change determines the sign of productivity trends in US forests. Presentation given at New Phytologist Anthromes Meeting in Potomac, MD March 28, 2023

Quantifying CO_2 enhancement effects on US forest biomass stocks over the last two decades. Ecological Society of America 2022 Montreal, Canada. Presentation by Jeremy Lichstein on my behalf. August 18, 2022

Functional Variability in specific root respiration translates to slight differences in soil respiration in a temperate deciduous forest. Talk given (remotely) at Woody Roots 8 – Penn State University July 13, 2022

Water levels primarily drive variation in photosynthesis and nutrient use of scrub Red Mangroves in the southeastern Florida Everglades. Poster presented at FCE LTER All Scientists Meeting 2022, Fairchild Botanical Garden Miami, FL March 3, 2022

Microbial respiration and temperature effects shape the in situ belowground CO2 efflux of the root-soil microbiome of 8 temperate hardwood tree species. American Geophysicial Union 2020, Virtual Meeting – part of session BG101: Soils in the Anthropocene December 15, 2020

Habitat-modulated effects of water level and salinity drive variation in photosynthetic assimilation of a scrub mangrove forest. Ecological Society of America 2020, Virtual meeting. August 3-6, 2020

Nitrogen use mediates the physiological acclimation and growth response of Poplar to warming. American Society of Plant Biologists 2020, Virtual meeting. July 27-31, 2020

Research Advancements in Tropical Forest Demographics and Tropical Cyclone Ecology – Luquillo LTER monthly meeting – online oral presentation. May 14, 2020

The Frequency of Cyclonic Wind Storms Shapes Tropical Forest Dynamism and Functional Trait Dispersion. Sixth EvoDemoSoc Annual Meeting. January 11th, 2019, The University of Miami, Coral Gables, FL January 11, 2019

Plant Functional Traits along a successional gradient in Jianfengling, Hainan Island, China. ICTB and Pine Rockland Conference – Fairchild Tropical Botanical Garden, Coral Gables, FL October 31, 2018

Differential impacts of the Anthropocene on Protected vs. unprotected areas. 2018 LTER ASM workshop with Carissa Gervasi in Pacific Grove, CA. https://2018lterallscientistsmeeting.sched.com/event/FYpu/differential-impacts-of-the-anthropocene-on-protected-vs-unprotected-areas October 3, 2018

Bridging Ecological and Hydrological Drought Responses Across the LTER network. 2018 LTER ASM workshop with Dominick Ciruzzi in Pacific Grove, CA. https://2018lterallscientistsmeeting.sched.com/event/FYqY/bridging-ecological-and-hydrological-drought-responses-across-the-lter-network October 1, 2018

[1] Only oral presentations and posters where I was the presenting scientist are included

Plant functional traits and tissue nutrients vary independently in tropical saplings across a successional gradient in Jianfengling, China. Oral presentation at Ecological Society of America 2018 meeting in New Orleans, LA.	August 10, 2018
Trees of the World. Lunchtime talk at Xishuangbanna Tropical Botanical Garden. Menglun, Yunnan, China.	May 31, 2018
Drought and the interannual variability in stem growth in an aseasonal everwet forest. Invited seminar at the Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences. Menglun, Yunnan, China.	May 12, 2018
Interannual variability and the phenology of stem growth in a seasonal, everwet forest Oral presentation at the 20th annual BioSymposium. Biology Department of Florida International University.	February 3, 2018
Can we use functional traits to predict sapling responses to logging? Oral presentation at the Association for Tropical Biology and Conservation Meeting. Merida, Mexico.	July 11, 2017
Tree growth trends from automatic (TreeHugger) and metal dendrometers from the Luquillo Experimental Forest, Puerto Rico. Poster presented at 19th annual BioSymposium. Biology Department of Florida International University.	February 4, 2016
Liana abundances rebound over a fourteen-year period in a subtropical secondary wet forest: Land-use legacies and hurricane recovery. Oral presentation at the annual meeting of the South Florida Caribbean Cooperative Ecosystem Studies Unit (CESU). Biscayne Bay National Park, Florida.	October 21, 2016
Responses of forest vegetation to unusual drought in wet forest of eastern Puerto Rico: A 'dry run' for climate change. Ecological Society of America meeting 2016, Ft. Lauderdale, FL: Late-breaking Poster.	August 2016
Structure and Diversity of subtropical Moist Forest on Clay Bedrock. Invited speaker at the USDA Forest Service International Institute for Tropical Forestry. Rio Piedras, Puerto Rico.	May 2, 2016
Graduate Student Working Group: Investigating precipitation anomalies using multiple site long-term data." Working group organized and led at the 2015 LTER All Scientist Meeting. Estes Park, CO. http://asm2015.lternet.edu/working-groups/graduate-student-working-group-investigating-precipitation-anomalies-using-multiple-s	September 2015
Revising the interaction of land use and the environment in Puerto Rican subtropical wet forests. Poster presentation of M.S. thesis material at the 52nd Annual Association for Tropical Biology and Conservation Conference. Honolulu, Hawaii.	June 2015
Revising the interaction of land use and the environment in Puerto Rican subtropical wet forests. Poster presentation of M.S. thesis material at the 100th Annual Ecological Society of America Conference. Baltimore, MD.	August 2015
Successional trajectories of a recovering Puerto Rican forest to an experimental hurricane. Oral presentation at the 35th annual University of Puerto Rico Junior Scientific & Technical Meeting (PRISM).	March 2015
Responses of trees over a nine-year period to an experimentally-induced hurricane in the Luquillo Experimental Forest, Puerto Rico. Poster presentation at the Island Biology Conference 2014 in Hawaii.	May 2014
Land use legacies affect Puerto Rican forests at decadal to century time scales. Oral presentation at the 34th annual University of Puerto Rico Junior Scientific & Technical Meeting (PRISM).	March 2014
Luquillo: Discoveries over the last 27-years of tropical forest dynamics – spatial variability in tree species distributions. Poster presentation at the 2015 LTER All Scientist Meeting. Estes Park, CO.	September 2015
Measuring the effects of hurricanes on tropical forest dynamics of Puerto Rico. Poster presentation at the 50th Annual Association for Tropical Biology and Conservation Conference. San Jose, Costa Rica.	June 2013

Workshops Attended

MEFA (MacroEcology for All) – NSF RCN meeting – Boulder, CO	July 2024

NCEAS LTER SPARC Working Group Participant – Santa Barbara, CA "Responses of Primary Producers and Primary Consumers to Environmental Change – From small-scale disturbances to seasonal and long-term changes" 2023

NEON – NCAR workshop – running point simulations with CTSM and NEON data. National Center for Atmospheric Research, Boulder CO May 2023

NSF URoL Post-doc Incubator Workshop – Stewarding an integrated biodiversity-climate system – participated in NSF Biology workshop with other postdocs and early-career faculty to shape future Universal Rules of Life (URoL) research direction. April 2022

Get Ready, Get SETS, GI workshop participant. – part of the NATURA network program - graduate student led workshop series on Green Infrastructure Fall 2020

Ecosystem Responses to Hurricanes Synthesis workshop –Corpus Christi, Texas. Participant in NSF Funded data synthesis workshop led by Christopher Patrick (lead-PI), John Kominoski & Bill McDowell (co-PIs). April 2019

Li-COR Photosynthesis Workshop – Li-Cor Inc., Lincoln, NE. Three-day training on the use of the Li-6800 portable photosynthesis workshop. February 2018

Center for Tropical Forest Science (CTFS) data analysis workshop – Luquillo, Puerto Rico. An invited representative for the Luquillo CTFS plot July 2017

Center for Tropical Forest Science (CTFS) data analysis workshop – Jianfengling, Hainan, China. An invited representative for the Luquillo CTFS plot July 2016

NiMBioS Graduate Student Workshop: "Current Issues in Statistical Ecology" – University of Tennessee, Knoxville. National Institute for Mathematical Biology and Statistics. As part of an ESA SEEDS event, graduate students were brought together to discuss issues in ecological data analyses, synthesize approaches, and learn analysis techniques. April 2015

Using PC-ORD to analyze Multivariate Community Ecology Data – USFS Southern Research Station, Knoxville, TN. Instructor: Dr. JeriLynn E. Peck (Penn State). Tutorial and 3-day intensive introduction to analyzing ecological community data using the PC-ORD software. March 2015

Skills

R programming, Ecological Statistics, Experimental design & data collection, Phylogenetics, Expert in Photosynthesis measurements with Li-COR Li-6800, Plant systematics & tropical plant field identification, Vegetation censusing protocols and sampling methods for functional traits, Laboratory work, including DNA extraction and amplification. Fluent in Spanish.

Peer Review & Professional Service

Journal editorial service

Subject Matter Editor – *Ecosphere* (Ecological Society of America) – General Ecology editorial board – since July 2024

Editorial Board – *Plant Diversity* (Chinese Academy of Sciences) – since November 2024

Editorial Board – *Journal of Plant Ecology* (Chinese Institute of Botany) – since August 2025

Journal manuscript review

> 120 verified peer reviews for 50 journals.

Web of Science review record: https://www.webofscience.com/wos/author/record/I-6344-2019

Proposal review

NSF Division of Environmental Biology (2 proposals) November 2023; October 2024

US Department of Energy FY23 Earth Systems Science Review Panel (7 proposals) April 2023

Czech Academy of Sciences (2 proposals) July 2022

Memberships

American Geophysical Union	2020 (only)
American Society of Plant Biologists	2019 (only)
International Society of Root Research (member ID: 692)	Since 2018
Sigma Xi (ΣΞ) (member ID: 20179991025)	2017-2022
American Association for the Advancement of the Sciences (member ID: 41546852)	Since 2017
British Ecological Society (member ID: 1008509)	Since 2016
Association for Tropical Biology and Conservation (member ID: 2194730)	Since 2013
Ecological Society of America (member ID: 151854)	Since 2012

Certifications

Invasive Species Monitoring with Remote Sensing – NASA ARSET (Applied Remote Sensing Training Program) Certificate	2024
HiPerGator Supercomputer – University of Florida certified user	2022
Li-COR Li-6800 certified – Li-COR Inc. Lincoln, NE	2018
Regression Models, Data Science Specialization with Johns-Hopkins University – Coursera MOOC	2015
Reproducible Research, Data Science Specialization with Johns-Hopkins University – Coursera MOOC	2015
Getting and Cleaning Data, Data Science Specialization with Johns-Hopkins University – Coursera MOOC	2014
R Programming, Data Science Specialization with Johns-Hopkins University – Coursera MOOC	2014
The Data Scientist's Toolbox, Data Science Specialization with Johns-Hopkins University – Coursera MOOC	2014
Exploratory Data Analysis, Data Science Specialization with Johns-Hopkins University – Coursera MOOC	2014
Mathematical Biostatistics Bootcamp 2 with Dr. Brian Caffo, Johns-Hopkins University – Coursera MOOC	2014
Mathematical Biostatistics Bootcamp 1 with Dr. Brian Caffo, Johns-Hopkins University – Coursera Massive Open Online Course (MOOC)	2013

[§] Revised August 1, 2025