

Curriculum Vitae

John Paul Schmidt

Assistant Research Scientist
Odum School of Ecology, University of Georgia
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Professional Experience

Jun 2023–Present Assistant Research Scientist, Odum School of Ecology, UGA
Aug 2019–Present Graduate Program Faculty, Odum School of Ecology, UGA
Feb 2016–Present Faculty of the RBC, River Basin Center, Odum School of Ecology, UGA
Aug 2019–May 2023 Lecturer, Odum School of Ecology, UGA
Jan 2013–Jul 2019 Part-time Assistant Research Scientist, Odum School of Ecology, UGA
Aug 2010–Dec 2012 Postdoctoral Research Associate, Odum School of Ecology, UGA
Jan 2009–Dec 2009 Postdoctoral Research Associate, Odum School of Ecology, UGA
Aug 2008–Sep 2008 Postdoctoral Research Associate, Odum School of Ecology, UGA
Jul 2006–Mar 2008 Postdoctoral Associate, Odum School of Ecology, UGA
Jan 2006–Jan 2013 Temporary Postdoctoral Associate, Institute of Ecology, UGA

Education

2006 Doctor of Philosophy, Ecology, University of Georgia, GA, United States
1994 Master of Science, Botany/Plant Biology, University of Georgia, GA, United States
1986 Bachelor of Science, Philosophy, Emory University, GA, United States

Scholarly activities

Journal articles

In preparation

Ridenhour KM, **Schmidt JP**, Stanger-Hall KF. 2023. Using community science to explore the effects of land management on the local abundance of the big dipper firefly (*Photinus pyralis*) in city parks and residential yards. *Biological Conservation*.
Meissner S, Hale C, **Schmidt JP**, Cruse-Sanders J, King E. 2023. The present, the absent, and the barely hanging on: Modeling habitat suitability in a dynamic successional ecosystem. *Biodiversity and Conservation*.

Submitted

Tiegs SD, Capps KA, **Schmidt JP**, Costello DM, Patrick CJ, Follstad-Shah JJ, LeRoy CJ, et al. 2023. Predicting global organic-matter decomposition in flowing waters. *Science*.
O'Regan SM, Umelo M, **Schmidt JP**, Han BA, Drake J. 2023. Theory of spillover for environmentally transmitted pathogens. *The American Naturalist*.
Dahlin K, O'Regan SM, Han BA, **Schmidt JP**, Drake J. 2023. Impacts of host availability and temperature on mosquito-borne parasite transmission. *Ecological Monographs*.

Sundaram M, Dorado M, Akaribo B, Filion A, Han B, Gottdenker N, **Schmidt JP**, . . . Stephens P. 2023. Frugivory, *Ficus* distribution, and Ebolavirus spillover in Sub-Saharan Africa. *Ecography: pattern and diversity in ecology*.

Filion A, Drake J, Sundaram M, **Schmidt JP**, Stephens P. 2023. Evidence of repeated zoonotic pathogen spillover events at ecological boundaries. *Ecology Letters*.

Published

Sundaram M, **Schmidt JP**, Han BA, Drake JM, Stephens PR. 2022. Traits, phylogeny and host cell receptors predict Ebolavirus host status among African mammals. *PLOS Neglected Tropical Diseases* 16:e0010993.

Stephens PR, Sundaram M, Ferreira S, Gottdenker N, Nipa KF, Schatz AM, **Schmidt JP**, . . . Drake JM. 2022. Drivers of African Filovirus (Ebola and Marburg) Outbreaks. *Vector-Borne and Zoonotic Diseases* 22:478-490.

Han BA, Castellanos AA, **Schmidt JP**, Fischhoff IR, Drake JM. 2021. The ecology of zoonotic parasites in the Carnivora. *Trends in Parasitology* 37:1096-110.

Stephens PR, Gottdenker N, Schatz AM, **Schmidt JP**, Drake JM. 2021. Characteristics of the 100 largest modern zoonotic disease outbreaks. *Philosophical Transactions of the Royal Society B* 376:20200535.

Schmidt JP, Davies TJ, Farrell MJ. 2021. Opposing macroevolutionary and trait-mediated patterns of threat and naturalisation in flowering plants. *Ecology Letters* 24:1237-1250.

Han BA, O'Regan SM, **Schmidt JP**, Drake JM. 2020. Integrating data mining and transmission theory in the ecology of infectious diseases. *Ecology Letters* 23:1178-1188.

Frey GE, **Schmidt JP**, Chamberlain JL. 2019. Estimating the value of forests for provisioning non-timber forest products. *Agricultural and Resource Economics Review* 49:91-116.

Pappalardo P, Morales-Castilla I, Park AM, Huang S, **Schmidt JP**, Stephens P. 2019. Mapping global patterns of parasite diversity. *Global Ecology and Biogeography* 29:182-193.

Schmidt JP, Maher S, Drake JM, Huang T, Farrell M, Han B. 2019. Ecological indicators of mammal exposure to Ebolavirus. *Philosophical Transactions of the Royal Society B* 374:20180337.

Byers JE, **Schmidt JP**, Pappalardo P, Haas S, Stephens PR. 2019. What factors explain the geographic range of mammalian parasites? *Proceedings of the Royal Society B* 286:20190673.

Schmidt JP, Cruse-Sanders J, Chamberlain J, Ferreira S, Young J. 2019. Explaining harvests of wild-harvested herbaceous plants: American ginseng as a case study. *Biological Conservation* 239:139-149.

Erfanifard Y, Nguyen HH, **Schmidt JP**, Rayburn A. 2018. Fine-scale intraspecific interactions and environmental heterogeneity drive the spatial structure in old-growth stands of a dioecious plant. *Forest Ecology and Management* 425:92-99.

Park A, Farrell M, **Schmidt JP**, Huang S, Dallas T, Pappalardo P, Drake JM, Stephens P, *et al.* 2018. Characterizing the phylogenetic specialism-generalism spectrum of mammal parasites. *Proceedings of the Royal Society B* 285:20172613.

Schmidt JP, Drake JM, Stephens PR. 2017. Residence time, native range size, and genome size predict naturalization among angiosperms introduced to Australia. *Ecology and Evolution* 7:10289-10300.

Schmidt JP, Markewitz D, deA Oliviera F, Sila A, Joslin AH. 2017. vNIR spectroscopy to assess soil changes in Ultisols of Pará State, Brazil. *Geoderma Regional* 11:71-77.

- Schmidt JP**, Park AW, Kramer AM, Han B, Drake JM. 2016. Spatiotemporal fluctuations and triggers of Ebolavirus spillover. *Emerging Infectious Diseases* 23:415-422.
- Han BA, **Schmidt JP**, Alexander LW, Bowden SE, Hayman DTS, Drake JM. 2016. Undiscovered Bat Hosts of Filoviruses. *PLOS Neglected Tropical Diseases* 10:e0004815.
- Stephens PR...**Schmidt JP**, et al. 2016. The macroecology of infectious disease: a new perspective on global-scale drivers of pathogen distributions and impacts. *Ecology Letters* 19:1159-1171.
- Han BA, **Schmidt JP**, Bowden SE, Drake JM. 2015. Rodent reservoirs of future zoonotic diseases. *Proceedings of the National Academy of Sciences, U.S.A.* 112:7039–7044.
- Schmidt JP**, Moore R, Alber M. 2014. Integrating ecosystem services and local government finances into land use planning - a case study from coastal Georgia. *Landscape and Urban Planning* 122:56–67.
- Schmidt JP**, Stephens PR, Drake JM. 2012. Two sides of the same coin? Rare and pest plants native to North America. *Ecological Applications* 22: 1512-1525.
- Schmidt JP**, Springborn M, Drake JM. 2012. Cost-sensitive risk assessment for invasive plants in the United States. *Ecosphere* 3: art46.
- Schmidt JP**, Drake JM. 2011. Time since Introduction, Seed Mass, and Genome Size Predict Successful Invaders among the Cultivated Vascular Plants of Hawaii. *PLoS One* 6: e17391.
- Schmidt JP**, Drake JM. 2011. Why are some plant genera more invasive than others? *PLoS One* 6: e18654.
- Schmidt JP**. 2008. Sex ratio and spatial pattern of males and females in the dioecious sandhill shrub, *Ceratiola ericoides*. *Plant Ecology* 195: 281-288.
- Trapnell DW, **Schmidt JP**, Hamrick JL. 2008. Spatial genetic structure of the southeastern North American endemic, *Ceratiola ericoides*. *Journal of Heredity* 99: 604-609.
- Trapnell DW, **Schmidt JP**, Quintana-Ascencio PF, Hamrick JL. 2007. Genetic insights into the biogeography of the southeastern North American endemic, *Ceratiola ericoides* (Empetraceae). *Journal of Heredity* 98: 587-593.
- Payne K, Samples K, Epstein J, Ostrander A, Lee JW, **Schmidt JP** et al. 2003. Multisource data integration for Georgia land-cover mapping. *Southeastern Geographer* 43:1-27.

Reports

- Stockton JC, **Schmidt JP**, Wallace D, Callaham M, Markewitz D. 2020. Management of longleaf pine ecosystems: can soil map units improve evaluations of soil change? *e-Gen. Tech. Rep. SRS-253. Asheville, NC: US Department of Agriculture, Forest Service, Southern Research Station* 253:155-165.
- Schmidt JP**. 2016. Assessing the status of wild American ginseng (*Panax quinquefolius*) in the Southeastern U.S. Report to the Region 8 office of the USDA Forest Service.
- Schmidt JP**. 2011. Status of the small whorled pogonia (*Isotria medeoloides*) on the Chattahoochee National Forest and adjacent national forests in the southern Appalachians. Report to the Region 8 office of the USDA Forest Service.
- Schmidt JP**. 2011. Documentation of Rare or Outstanding Natural Communities in the Georgia Piedmont and upper Coastal Plain for Georgia DNR's Biodiversity Databases. Report to the Georgia Department of Natural Resources Nongame Conservation Section.
- Schmidt JP**. 2009. Vegetation Monitoring Protocols for Southeast Coast Network Parks. Final report submitted to the Southeast Coast Network, National Park Service.

Grants received

- Wenger S (PI), Calabria J, Freeman B, Jackson CR, **Schmidt JP**. Assessment and Monitoring of the Effects of Garwood Dam Removal on Imperiled Aquatic Organisms and their Habitat. Oct 2023-Oct 2026. Georgia Department of Transportation \$226,295.
- King E (PI), **Schmidt JP**, MacDonald E, Glass-Hill H, Coleman S, Hayes C, Colbert J. Conserving Ecologically and Culturally Important Plants in Georgia's Coastal Ecosystems. Jan 2022-Dec 2024. Georgia Sea Grant \$149,604.
- Stephens PR (PI), **Schmidt JP**, Ferreira S, Gottdenker N, Drake JM. 2018. Spillover of Ebola and other filoviruses at ecological boundaries. July 2020-May 2025. NIH \$2,465,584.
- Drake JM (PI), Gottdenker NL, Tanner SN, **Schmidt JP**, Altizer SM, Hall RJ, Velazquez-Runk J. CNH2-L: Social and ecological determinants of multi-host vector-borne infections in dynamic tropical landscapes. Oct 2019-Sept 2022. NSF \$1,599,933.
- Schmidt JP** (PI). 2018. Local Scale Controls on the Development of Secondary Forests in the Central Amazon Research award proposal for work at the National Institute of Amazonian Research Manaus, Brazil. Fulbright Research Scholar Flex Award 2019-2020.
- Drake JM (PI), Ferreira S, Gottdenker N, Bellan S, Hall R, Kramer D, **Schmidt JP**, Stephens PR. Spillover: The geography of emerging infectious diseases. May 2017-Sept 2019. UGA President's Interdisciplinary Seed Grant Program \$109,749.
- Han B (PI), O'Regan S, Drake JM, **Schmidt JP**. Global patterns, predictors, and their dynamical consequences in zoonotic diseases of mammals. Sept 2017-Aug 2022. NSF \$929,294.
- Schmidt JP**. (PI). Tools to promote cost-effective conservation of forested wetlands in Georgia: balancing economic returns to landowners with the preservation of multiple ecosystem services in Georgia's Coastal Zone. Dec 2016-Nov 2018. R Howard Dobbs, Jr. Foundation, \$158,956.
- Calabria J (PI), **Schmidt JP**, Goetcheus CL. Fort Pulaski sustainability issues. Aug 2015-Dec 2016. US Department of Interior, \$61,765.
- Calabria J (PI), **Schmidt JP**, Vick RA. Landscape performance and biodiversity analysis, Phase 1: Ground layer vegetation for solar project literature review. Sept 2015-Aug 2017. Georgia Power Foundation, \$24,903.
- Schmidt JP** (PI). American ginseng (*Panax quinquefolius*) conservation. Apr 2015-July 2016. Atlanta Botanical Garden, \$36,000.
- Schmidt JP** (PI), Markewitz D. Using VNIR calibrations and testing statistical approaches to extrapolate dynamic soil properties within the high priority longleaf/wiregrass landscape. Sept 2013-Sept 2016. US Department of Agriculture, \$88,150.
- Schmidt JP** (PI). Assessing the status of small whorled pogonia (*Isotria medeoloides*) populations on the Chattahoochee National Forest from two decades of monitoring data. Nov 2012-Apr 2013. Atlanta Botanical Garden, \$5,678.
- Schmidt JP** (PI). Calibrating NIR spectral measurement of soil chemometric measures. Mar 2012-May 2014. World Agroforestry Centre, \$15,000.
- Schmidt JP** (PI). Documentation of rare or outstanding natural communities in the Georgia Piedmont and upper Coastal Plain for Georgia Department of Natural Resources's Biodiversity Databases. May 2010-Dec 2010. Georgia Department of Natural Resources, \$15,033.

Schmidt JP (PI). Integrated vegetation-monitoring technique pilot testing. Aug 2005-Sept 2008. CESU-Piedmont, National Park Service, US Department of Interior, \$141,850.

Invited seminars/lectures

- 2017 Identifying environmental triggers of Ebola spillover events using spatio-temporal envelop models. Morehouse College, Atlanta
- 2017 Viral spillover and climatic triggers. Virginia State University, Petersburg, VA (Recruitment talk for Ecology of Infectious Disease REU program)
- 2006 Using vNIR spectra to characterize soil quality. Embrapa Eastern Amazon, Belem, Brazil

Conference talks

- Schmidt JP**. 2019. Managing forested wetlands in Georgia as a public good. Georgia Water Resources Conference.
- Schmidt JP**, Maher SP, Drake JM, Han, BA. 2018. Optimizing surveillance for Ebola virus spillover across space, seasons, and species. American Geophysical Union Fall Meeting. Washington, DC.
- Schmidt JP**. 2018. Quantifying the status of forested wetlands in the Coastal Plain of Georgia, USA. Ecological Society of America Annual Conference. New Orleans, LA.
- Schmidt JP**. 2017. Forested wetland conservation on the Coastal Plain in Georgia. Georgia Water Resources Conference. Athens, GA.
- Schmidt JP**. 2017. Forested wetland conservation on the Coastal Plain in Georgia. 17th Annual Meeting of the American Ecological Engineering Society. Athens, GA.
- Schmidt JP**, Park AW, Drake JM, Alexander L. 2015. Identifying triggers of Ebola spillovers using spatio-temporal envelop models. Ecological Society of America Annual Conference. Baltimore, MD.
- Schmidt JP**. 2013. Invasive angiosperms show consistent patterns in traits and phylogeny. Ecological Society of America Annual Conference. Minneapolis, MN.
- Schmidt JP**. 2011. Rare plant to pest plant: can traits predict where vascular species fall along this continuum. Ecological Society of America Annual Conference. Austin, TX.
- Schmidt JP**. 2011. Ecosystem services meet local planning in a coastal Georgia county. Coastal Georgia Colloquium. Savannah, GA.
- Schmidt JP**. 2010. Cost-sensitive risk assessment for invasive plant species in the United States. Ecological Society of America Annual Conference. Pittsburgh, PA.
- Schmidt JP**. 2006. Individual-based population models of a sandhill shrub, *Ceratiola ericoides*. Ecological Society of America Annual Conference. Memphis, TN.

Poster presentations

- Calabria J, Schmidt JP, Dolatowski E, Floyd T, Gerrin W, Shelton J, Lowe R. 2022. Oh Hell...Bender Habitat, Where art thou? Council of Educators in Landscape Architecture.
- Drake JM, **Schmidt JP**, Park A, Kramer A, Han B, Alexander L. 2018. Dynamic risk mapping of zoonotic spillover. Epidemics.
- Schmidt JP**. 2015. Spatio-temporal triggers of Ebola spillover. Modelling the Spread and Control of Ebola in West Africa Conference. Georgia Tech, Atlanta.
- Schmidt JP**. 2014. Small genome size associated with successful invasion among introduced Australian angiosperm. Invasion Genetics: Baker and Stebbins Legacy Symposium. Asilomar, CA.

Courses taught

Course	Where	Title	Term	Students	Credit Hours	Portion
ECOL 3500	UGA	Intro to Ecology	Spring 2023	49	3	100%
ECOL 44-6450	UGA	Spatial Ecology	Spring 2023	9	3	100%
ECOL 4960R	UGA	Undergraduate Research I	Spring 2023	1	3	50%
ECOL 3500	UGA	Intro to Ecology	Fall 2022	43	3	100%
ECOL 3900	UGA	Directed Reading	Fall 2022	5	3	100%
BIOL 4960R	UGA	Undergraduate Research I	Fall 2022	1	3	100%
ECOL 3530	UGA	Conservation Biology	Fall 2022	70	3	25%
ECOL 3500	UGA	Intro to Ecology	Spring 2022	136	3	50%
ECOL 44-6450	UGA	Spatial Ecology	Spring 2022	13	3	100%
BIOL 4960R	UGA	Undergraduate Research I	Spring 2022	2	4	100%
ECOL 7000	UGA	Master's Research	Fall 2021	1	15	100%
ECOL 7300	UGA	Master's Thesis	Fall 2021	1	3	100%
ECOL 3530	UGA	Conservation Biology	Fall 2021	71	3	25%
ECOL 3500	UGA	Intro to Ecology	Fall 2021	127	3	100%
ECOL 3550	UGA	Ecological Data Literacy	Fall 2021	5	3	100%
ECOL 7000	UGA	Master's Research	Summer 2021	1	18	100%
ECOL 8540	UGA	Computational Workshop	May 2021	16	2	100%
ECOL 9000	UGA	Master's Research	Spring 2021	1	6	100%
ECOL 7000	UGA	Master's Research	Spring 2021	1	9	100%
ECOL 3480	UGA	Spatial Ecology	Spring 2021	12	3	100%
ECOL 3500	UGA	Intro to Ecology	Spring 2021	138	4	100%
ECOL 4900S	UGA	Environmental Practicum	Spring 2021	16	3	50%
ECOL 7000	UGA	Master's Research	Fall 2020	1	5	100%
ECOL 8000	UGA	Topics in Modern Ecology	Fall 2020	13	3	30%
ECOL 3500	UGA	Intro to Ecology	Fall 2020	121	4	100%
ECOL 3530	UGA	Conservation Biology	Fall 2020	23	3	100%
ECOL 8540	UGA	Computational Workshop	May 2020	21	2	100%
ECOL 7000	UGA	Master's Research	Spring 2020	1	6	100%
ECOL 3480	UGA	Spatial Ecology	Spring 2020	6	3	100%
ECOL 3500	UGA	Intro to Ecology	Spring 2020	120	4	50%
ECOL 4900S	UGA	Environmental Practicum	Spring 2020	10	3	50%
ECOL 8000	UGA	Topics in Modern Ecology	Fall 2019	8	3	30%
ECOL 3550	UGA	Ecological Data Literacy	Fall 2019	16	3	50%
ECOL 3510	UGA	Ecology Laboratory	May 2019 CR	22	3	100%

Supervision of graduate student research

Kelly Ridenour, MS, Odum School, UGA, 2020-May 2022

Jenna Stockton, MS, Warnell School, UGA, 2014-2016. Co-Chair with Daniel Markewitz

Graduate student advisory committee membership—MS

Crystal Pendergast, current, Odum School, UGA

Michelle Fonda, 2021, Warnell School, UGA

Ashley Bellew, 2020, Odum School, UGA

Gregory Muse, 2018, Landscape Architecture, UGA

Graduate student advisory committee membership—PhD

Anna-Kate Schatz, current, Odum School, UGA
Sara Meissner, current, Odum School, UGA
TJ Odom, current, Odum School, UGA
Akanksha Sharma, current, Odum School, UGA
Pit Jongwattanakul, current, Agricultural Economics, UGA

Supervision of undergraduate research (non-thesis)

Kali Lyons, Spring 2023, UGA
Mathew Laney, Spring 2022, UGA
Madison Morris, Spring 2022, UGA
Kyle Steen, Summer 2021, UGA

Internship supervision

Sydney Rentsch, 2018, Population Biology of Infectious Disease REU
Lauren Kleine, 2017, Population Biology of Infectious Disease REU, with Patrick Stephens
Chevana Dorris, 2016, Population Biology of Infectious Disease REU
Christina Frogoso, 2015, Population Biology of Infectious Disease REU, with Scott Connelly

Graduate student research mentoring

Isabella Ragonese, 2021, UGA
Ashley Bellew, 2020, UGA

Post-doctoral research mentoring

Kyle Dahlin, 2019-present, UGA
Cecilia Sanchez, 2019-2021, UGA

Public service to local communities, government, and nongovernmental agencies

2016-present. Working with adjacent landowners to preserve Cedar Mountain in Douglas County as a natural area.
2018 Incentives to conserve forested wetlands on the Coastal Plain in Georgia. Georgia Association of Floodplain Management Conference. Athens, GA.
2015 Using ecosystem services to evaluate future development scenarios in coastal Georgia. Georgia Coastal Research Council Public Forum. Brunswick, GA.
2014-2019. Serve on steering committee of the Wetland Forest Initiative to promote conservation of forested wetlands in the Southeast.
2012 Submitted report and advised the Trust for Public Land on the plant communities on Lost Mountain in Cobb County to support the purchase of the site.

Professional service

Ad hoc manuscript reviewer (since 2011)

40 manuscripts from *American Naturalist*, *Molecular Ecology*, *Proceedings of the Royal Society B*, *Journal of Environmental Management*, *Biological Invasions*, *Castanea*, *EcoHealth*, *Diversity and Distributions*, *Plant Ecology*, *Forest Ecology and Management*, *Journal of Ecology*, *Royal Society Open Science*, *Tropical Medicine and Health*, *PLOS Computational Biology*, *PLOS One*,

Ecosphere, Emerging Infectious Diseases, Tree Physiology, American Journal of Botany, eLife, Geoderma, Restoration Ecology, Global Biogeochemical Cycles, Reviews in Aquaculture, Journal of Environmental Science and Health, Part C, PLOS Neglected Tropical Diseases, and Ecological Research

Grant review panel member

2020 USDA NIFA-AFRI Food & Agriculture Cyberinformatics Tools Initiative Panel

Ad hoc grant reviewer

2021 National Science Foundation (ad-hoc reviewer and early career reviewer)

2017 Netherlands Organization for Scientific Research

2015 French National Research Agency

2014 Maryland Sea Grant Program

Service on departmental, college, or university committees

2022 Diversity Committee, Odum School, UGA

2022 IT Committee, Odum School, UGA

2016-2018 Diversity Committee, Odum School, UGA

Special administrative assignments

2019 Search Committee for lecturer, Odum School, UGA

2017 Search Committee for plant disease ecologist in Department of Plant Pathology, UGA

Service to student groups and organizations

2022 Led Spring hike for Environmental Ethics program, UGA