

ADAM MICHAEL WILSON, PH.D.

CONTACT INFORMATION

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EDUCATION

2012-15 PD Yale University Postdoctoral Fellow
Ecology & Evolutionary Biology, New Haven, CT
2012 Ph.D. University of Connecticut
Ecology and Evolutionary Biology, Storrs, CT
2003 M.S. University of New Hampshire
Earth Science (Geochemical Systems and Climate Change), Durham, NH
2000 B.S. University of New Hampshire
Biology: Evolutionary Biology and Ecology, *Summa Cum Laude*, Durham, NH

EMPLOYMENT

2020-present Associate Professor of Global Environmental Change,
Departments of Geography
Department of Environment and Sustainability
University at Buffalo, Buffalo, NY, USA
2023-2024 Visiting Research Professor
Biological Sciences Department
University of Cape Town, Cape Town, South Africa
2015-2020 Assistant Professor
Department of Geography
University at Buffalo, Buffalo, NY, USA
2013-2015 Climate and Energy Institute Postdoctoral Fellow
Yale University, New Haven, CT

AWARDS, RECOGNITIONS, & FELLOWSHIPS

2024 Nominated for *NASA Group Achievement Award* (NASA GAA) as PI of the BioSCape Project
2016-2025 Lead Scientist and Principal Investigator of the *Biodiversity Survey of the Cape (BioSCape)*: the first NASA Biodiversity Field Campaign (bioscape.io), a 10-year, ~\$12m international collaboration between NASA and the South African National Research Foundation involving 150 scientists.
2023 NASA International Space Apps Challenge Subject Matter Expert & Judge
2019 Featured Scientist, NASA Biodiversity & Ecological Forecasting Program's *Researcher Spotlight*
2017 *United Nations Climate Action Award* - Recipient of the Data-driven Innovations to Accelerate Climate Action Award given at the United Nations Sustainable Innovation Forum (SIF17) during the UN Framework Convention on Climate Change meeting in Bonn, Germany.
2016 Recognized one of the Twelve UB research projects that caught the world's attention in 2016.
2013 DISCCRS (DISsertations initiative for the advancement of Climate Change ReSearch) Fellow
2012 NASA Earth Science Graduate Fellow
2004-2006 U.S. Peace Corps, Department of Water and Forests, Arganeraie Biosphere Reserve, Morocco
Served as an environmental educator in the U.S. Peace Corps. The recent establishment of the Arganeraie Biosphere Reserve limited how villagers could use the surrounding forest and I worked with them to seek alternative and sustainable livelihoods that did not degrade their environment.

RESEARCH GRANTS & CONTRACTS

Status	Sponsor	Title	Years	Role	Total Grant \$	UB Portion \$
Current	NASA	Biodiversity Survey of the Cape (BioSCape)	2020-2026	PI	\$1,451,819	\$1,451,819
	UB	Wildfires In Natural Ecosystems and Urban Communities	2021-2022	Co-I	\$15,000	\$15,000
	NASA	Near-Real-Time Forecasting and Change Detection for a Fire-Prone Shrubland Ecosystem	2021-2024	PI	\$483,239	\$483,239
Past	NASA	An Analytic Center for Biodiversity and Remote Sensing Data Integration	2020-2022	Co-I	\$1,149,000	\$111,817
	NASA	Monitoring, Modeling, and Projecting Global Dynamics in Alpine Treeline Ecotones under Climate Change.	2018-2021	PI	\$135,000	\$135,000
	NASA	Activities to advance, build, and deliver remote-sensing supported species distribution and species abundance Essential Biodiversity Variables	2018-2020	Co-I	\$599,894	\$41,669
	NASA	Software workflows and tools for integrating remote sensing and organismal occurrence data streams to assess and monitor biodiversity change	2017-2019	Co-I	\$1,179,268	\$114,792
	NASA	Monitoring Dimensions of Biodiversity in a Mega-Diverse Region of Southern Africa: from Traits to Communities to Ecosystems	2016-2019	PI	\$236,984	\$236,984
	NASA	Integrating global species distributions, remote sensing information and climate station data to assess recent biodiversity response to climate change	2016	Sub-contract	\$1,437,212	\$12,000
	Amazon	Amazon Web Services in Education Grant	2015	PI	\$3,750	\$3,750
Total Funded Grants					\$6,691,166	\$2,606,070

PEER REVIEWED PUBLICATIONS

CITATION METRICS

Source	Publications	h index	io index	Total Citations
Google Scholar	53	35	48	4,353

See goo.gl/of6GUH for updates

★ Student / postdoctoral advisee

❖ **A. M. Wilson** is senior author

ε Authors in alphabetical order following lead author(s)

IN REVIEW

- ★ Cardoso, A. W., Hestir, E. L., Slingsby, J. A., ★ Forbes, C. J., Moncrieff, G. R., Woody, T., Skowno, A. L., Nesslage, J., Brodrick, P. G., Gaddis, K. G., & ❖ **Wilson, A. M.** (2024). The Biodiversity Survey of the Cape (BioSCape): Integrating Remote Sensing with Biodiversity Science. Preprint. <https://doi.org/10.5281/zenodo.12688174>
- ★ Cardoso, A. W., Hestir, E., Slingsby, J., ★ Forbes, C., Moncrieff, G., Turner, W., Skowno, A., Nesslage, J., Brodrick, P., Gaddis, K., & ❖ **Wilson, A. M.** (2024). The Biodiversity Survey of the Cape (BioSCape): Towards Inclusive International Biodiversity Science. Preprint. <https://doi.org/10.5281/zenodo.1126718>
- Merow, C., Serra-Diaz, J., Carlson, B., Maitner, B., Pinilla-Buitrago, G., Trisos, C., **Wilson, A.M.**, Pigot, A., Urban, M. Unprecedented heat threatened 1 in 8 vertebrate species in 2023 (in review) *Nature*.
- ★ O'Connor, C., Aldstadt, J., ❖ **Wilson, A.M.** Examining patch and landscape-level white-tailed deer connectivity using a novel, buffer and resistance-based metric (in review) *Landscape Ecology*. <https://doi.org/10.21203/rs.3.rs-4655632/v1>

PUBLISHED (AND IN PRESS)

- ★ Maitner, B., Andrade, P.S., Lei, L., Kass, J., Owens, H., Barbosa, G., Boyle, B., Castorena, M., Enquist, B., Feng, X., Park, D., Paz, A., Pinilla-Buitrago, G., Merow, C., ❖ **Wilson, A.M.** Code sharing increases citations but remains uncommon" (in press) *Ecology and Evolution*. Preprint DOI: doi.org/10.22541/au.170003886.68548206/v1
- ★ Martínez-Quintana, A., Lasker, H.R., ❖ **Wilson, A.M.** Three-dimensional species distribution modeling reveals the realized spatial niche for coral recruitment on contemporary Caribbean reefs (2023) *Ecology Letters* <https://doi.org/10.1111/ele.14281>

3. Merow, C., Serra-Diaz, J.M., Enquist, B.J., **Wilson, A.M.**, AI chatbots can boost scientific coding (2023) *Nature Ecology & Evolution* doi.org/10.1038/s41559-023-02063-3
4. Pigot, A., Merow, C., Trisos, C., **Wilson, A.M.** Abrupt expansion of climate change risks for species globally (2023) *Nature Ecology and Evolution* doi.org/10.1038/s41559-023-02070-4
5. Slingsby, J., **Wilson, A.M.**, Moncrieff, G., Maitner, B., Regional ecological forecasting across scales: A manifesto for a biodiversity hotspot (2023) *Methods in Ecology and Evolution* doi.org/10.1111/2041-210x.14046
6. Merow, C., Boyle, B., Enquist, B., Feng, X., Kass, J., Maitner, B., McGill, B., Owens, H., Park, D., Paz, A., Pinilla-Buitrago, G., Urban, M., Varela, S., **Wilson, A. M.**, Better incentives are needed to reward academic software development(2023) *Nature Ecology and Evolution*. doi.org/10.1038/s41559-023-02008-w
7. * Hu, Y., Ma, Y., Moncrieff, G., Slingsby, J., **Wilson, A. M.**, Maitner, B., Zhou, R.Z. Forecasting vegetation dynamics in an open ecosystem by integrating deep learning and environmental variables. (2022) *International Journal of Applied Earth Observation and Geoinformation* 114:103060 doi.org/10.1016/j.jag.2022.103060
8. ε Cavender-Bares, J. , Schneider, F., Santos, M. J., Armstrong, A., Carnaval, A., Dahlin, K., Fatoyinbo, L., Hurtt, G.C., Schimel, D., Townsend, P. A., Ustin, S. L., Wang, Z., **Wilson, A. M.** Integrating remote sensing with ecology and evolution to advance biodiversity conservation (2022) *Nature Ecology and Evolution*. <https://doi.org/10.1038/s41559-022-01702-5>
9. Karger, D., **Wilson, A.M.** Mahony, C., Zimmerman, N., Jetz, W. Global daily 1km land surface precipitation based on cloud cover-informed downscaling (2021) *Scientific Data* 8:307. <https://doi.org/10.1038/s41597-021-01084-6>
10. Li, R., Ranipeta, A., Wilshire, J., Malczyk, J., Duong, M., Guralnick, R., Wilson, A.M., Jetz, W. A cloud-based toolbox for the versatile environmental annotation of biodiversity data (2021) *PLoS Biology* <https://doi.org/10.1371/journal.pbio.3001460>
11. Smith, A. C., Dahlin, K., Costanza, J. K., Record, S., **Wilson, A. M.**, Zarnetske, P. L., The geodiv R package: tools for calculating gradient surface metrics. (2021) *Methods in Ecology and Evolution* <https://doi.org/10.1111/2041-210X.13677>
12. * van Leeuwen, M., Frye, H., ❖ **Wilson, A. M.** Understanding limits of species identification from imaging spectroscopy (2021) *Remote Sensing of Environment* 259:112405 doi.org/10.1016/j.rse.2021.112405
13. Frye, H., Aiello-Lammens, M., Euston-Brown, D., Jones, C., Kilroy Mollmann, H., Merow, C., Slingsby, J., van der Merwe, H., **Wilson, A.**, Silander, J. Spectral diversity predicts species, functional, and phylogenetic plant diversity across a hyper-diverse biogeographic region (2021) *Global Ecology and Biogeography* doi.org/10.1111/geb.13306
14. * Williams, H.M., Siegrist, J., ❖ **Wilson, A.M.** Support for a relationship between demography and modeled habitat suitability is scale dependent for the Purple Martin, *Progne subis*. (2021) *Journal of Animal Ecology* 90:356-366. doi.org/10.1111/1365-2656.13369
15. Slingsby, J.A., Moncrieff, G.R., **Wilson, A.M.**, Near-real time forecasting and change detection for an open ecosystem with complex natural dynamics (2020) *Journal of Photogrammetry and Remote Sensing* 166: 15-25 doi.org/10.1016/j.isprsjprs.2020.05.017
16. * Wei, C., ❖ **Wilson, A. M.** Alpine Treeline Ecotones in the Western United States (2020) *Remote Sensing of Environment* 240: 111672 doi.org/10.1016/j.rse.2020.111672
17. * Xie, Y., ❖ **Wilson, A. M.** Estimation of Deciduous Forest Land Surface Phenology (2020) *Remote Sensing of Environment* 240: 111698 doi.org/10.1016/j.rse.2020.111698
18. Read, Q. D., Zarnetske , P. L., Record, S., Grady, J. M., **Wilson, A. M.**, Finley, A. O., Latimer, A., Costanza, J. K., Gaddis, K., Dahlin, K. M., Hobi, Ollinger, M., S., Malone, S., and Pau, S. Beyond counts and averages: relating geodiversity to dimensions of biodiversity (2020) *Global Ecology and Biogeography* 29(4):696-710. doi.org/10.1111/geb.13061
19. [authors in alphabetical order following workshop convener] Randin, C., Ashcroft, M. Bolliger, J., Cavender-Bares, J., Coops, N., Dullinger, S., Dirnboeck, T., Eckert, S., Ellis, E., Giuliani, G., Guisan, A., Jetz, J., Joost, S., Karger, D., Lembrechts, J., Lenoir, J., Luoto, M., Morin, X., Price, B., Rocchini, D., Schaepman, M., Verburg, P., **Wilson, A. M.**, Woodcock, P., Yoccoz, N. (2020) Towards improved monitoring of terrestrial ecosystems in the Anthropocene through the closer integration of remotely sensed data into species distribution models. *Remote Sensing of Environment* 239(15): 111626 doi.org/10.1016/j.rse.2019.111626
20. Grady, J. M., Maitner, B. S., Winter, A. S., Kaschner, K., Tittensor, D.P., Record, S., Smith, F. A., **Wilson, A. M.**, Dell, A. I., Wearing, H. J., Alfaro, B., Brown, J. H. (2019) Metabolic asymmetry and the global diversity of marine predators *Science* 363(6425) doi:10.1126/science.aat4220
21. Zarnetske,P.L., Read, Q.D., Record, S., Gaddis, K., Pau, S., Hobi, M., Malone, S.L., Costanza, J., Dahlin, K., Latimer, A, **Wilson, A. M.**, Grady, J.M., Ollinger, S., Finley, A. (2019) Connecting biodiversity and geodiversity

across scales with satellite remote sensing *Global Ecology and Biogeography*

doi:<https://doi.org/10.1111/geb.12887>

22. ★ Xie, Y. Wang, X., **Wilson, A. M.**, Silander, J.A., Jr (2018) Predicting autumn phenology: How deciduous tree species respond to weather stressors. *Agricultural and Forest Meteorology* 250:127-137. doi:10.1016/j.agrformet.2017.12.259
23. Slingsby, J. A. Merow, C., Aiello-Lammense, M., Allsopp, N., Hall, S., Mollmann, K., Turner, R., **Wilson, A. M.**, Silander, J.A. (2017) Intensifying post-fire weather and biological invasion drive species loss in a Mediterranean-type biodiversity hotspot *Proceedings of the National Academy of Sciences* 4697-4702, doi:10.1073/pnas.1619014114
24. Merow, C., **Wilson, A. M.**; Jetz, W. (2017) Integrating occurrence data and expert maps for improved species range predictions. *Global Ecology and Biogeography* 26(2):243-258 doi:dx.doi.org/10.1111/geb.12539
25. **Wilson, A. M.**, Jetz., W. High-resolution global cloud dynamics for ecosystem and biodiversity monitoring. (2016) *PLOS Biology* 14 (3), e1002415 doi:dx.doi.org/10.1111/jors.12271.
26. Domisch. S., **Wilson, A. M.**, Jetz, W., Model-based integration of observed and expert-based information for assessing the geographic and environmental distribution of freshwater species (2016) *Methods in Ecology and Evolution* doi:10.1111/ecog.01925
27. Jansen, D. Y. M., **Wilson, A. M.**, Altwegg, R., Climatic influences on survival of migratory African Reed Warblers *Acrocephalus baeticatus* in South Africa (2016) *Ardea* 103(2):163-174 doi:10.5253/arde.v103i2.a5
28. **Wilson, A. M.**, A. M. Latimer, J. A. Silander. Climatic controls on ecosystem resilience: Postfire regeneration in the Cape Floristic Region of South Africa (2015) *Proceedings of the National Academy of Sciences* doi:10.1073/pnas.1416710112
29. **Wilson, A. M.**, Likens, G. E. Content volatility of scientific topics in Wikipedia: A Cautionary Tale (2015) *PLOS One* doi:10.1371/journal.pone.0134454
30. Parmentier, B., McGill, B., **Wilson, A. M.**, Regetz, J., Jetz, W., Guralnick, R., Tuanmu, M., Robinson, N., Schildhauer, M. (2015) Using multi-timescale methods and satellite derived land surface temperature for the interpolation of daily maximum air temperature in Oregon. *International Journal of Climatology* doi:10.1002/joc.4251
31. Xie, Y., Ahmed, K.F., Allen, J. M., **Wilson, A. M.**, Silander, J.A., (2015) Green-up of deciduous forest communities of northeastern North America in re-sponse to climate variation and climate change *Landscape Ecology* 30(1):109-123 doi:10.1007/s10980-014-0099-7.
32. Parmentier, B., McGill, B., **Wilson, A. M.**, Regetz, J., Jetz, W., Guralnick, R., Tuanmu, M., Robinson, N., Schildhauer, M. (2014) An assessment of methods and remotely sensed covariates for regional predictions of 1 km daily maximum air temperature. *Remote Sensing* 6(9):8639-8670 doi:10.3390/rs6098639.
33. **Wilson, A. M.**, Parmentier, B. & Jetz, W. (2014) Systematic landcover bias in Collection 5 MODIS cloud mask and derived products – a global overview. *Remote Sensing of the Environment* 141:149-154. doi:10.1016/j.rse.2013.10.025
34. **Wilson, A. M.** & Silander, J. A. (2014). Estimating Uncertainty in Daily Weather Interpolations: a Bayesian framework for developing climate surfaces. *International Journal of Climatology* 34(8):2573-2584 doi:10.1002/joc.3859
35. Merow, C., Latimer, A. **Wilson, A. M.**, McMahon, S., Rebelo, T., Silander Jr., J. A. (2014). On using Integral Projection Models to generate demographically driven predictions of species distributions: development and validation using sparse data. *Ecography*. doi:10.1111/ecog.00839
36. Keil, P., **Wilson, A. M.**, Jetz, W. (2014). Uncertainty, priors, autocorrelation and disparate data in downscaling of species distributions *Diversity and Distributions*. 20(7):797-812 doi:10.1111/ddi.12199
37. Allen, J. M., Terres, M. A., Katsuki, T., Iwamoto, K., Kobori, H., Higuchi, H., Primack, R. B., **Wilson, A. M.**, Gelfand, A., & Silander, J. A. (2014). Modeling daily flowering probabilities: expected impact of climate change on Japanese cherry phenology *Global Change Biology* 20(4):1251-1263 doi:10.1111/gcb.12364
38. Keil, P., Belmaker, J., **Wilson, A. M.**, Unitt, P., & Jetz, W. (2013). Downscaling of species distribution models: a hierarchical approach. *Methods in Ecology and Evolution* 4:82-94. doi:10.1111/j.2041-210x.2012.00264.x
39. Jiang, X., Dey, D. K., Prunier, R., **Wilson, A. M.**, & Holsinger, K. E. (2013). A New Class of Flexible Link Function with Application to Spatially Correlated Species Co-occurrence in Cape Floristic Region. *Annals of Applied Statistics* 7(4):1837-2457.
40. Ahmed, K. F., Wang, G., Silander, J. A., **Wilson, A. M.**, Allen, J. M., Horton, R., & Anyah, R. (2013) Statistical downscaling and bias correction of climate model outputs for climate change impact assessment in the U.S. northeast. *Global Planetary Change*, 100:320-332. doi:10.1016/j.gloplacha.2012.11.003

41. **Wilson, A. M.**, Silander, Jr. J. A., Gelfand, A. E., & Glenn, J. (2011). Scaling up: linking field data and remote sensing with a hierarchical model. *International Journal of Geographical Information Science*, 25(3):509–521. doi:10.1080/13658816.2010.522779
42. De Klerk, H. M., **Wilson, A. M.**, Steenkamp, K., & Tsela, P. (2011) Evaluation of satellite-derived Burned Area products for the Fynbos, a Mediterranean shrub-land. *International Journal of Wildland Fire*, 21(1)36–47. doi:10.1071/WF11002
43. Chakraborty, A., Gelfand, A. E., **Wilson, A. M.**, Latimer, A. M., & Silander, Jr. J. A. (2011). Point Pattern Modeling for Degraded Presence-Only Data over Large Regions. *Journal of the Royal Statistical Society, Series C: Applied Statistics*, 60(5):1–20. doi:10.1111/j.1467-9876.2011.00769.x
44. Merow, C., LaFleur, N., Silander Jr. J. A., **Wilson, A. M.**, & Rubega, M. (2011). Predicting bird-mediated spread of invasive plants across northeastern North America. *American Naturalist*, 178(1):30–43. doi:10.1086/660295
45. **Wilson, A. M.**, Latimer, A. M., Silander, Jr. J. A., Gelfand, A. E. & de Klerk, H. (2010). A Hierarchical Bayesian model of wildfire in a Mediterranean biodiversity hotspot: Implications of weather variability and global circulation. *Ecological Modelling*, 221:106–112. doi:10.1016/j.ecolmodel.2009.09.016
46. Chakraborty A., Gelfand, A. E., **Wilson, A. M.**, Latimer, A. M., & Silander, Jr. J. A. (2010). Modeling large scale species abundance with latent spatial processes. *The Annals of Applied Statistics*, 4(3):1403–1429. doi:10.1214/10-AOAS335
47. Ibáñez, I., Silander, Jr. J. A., Allen, J., Treanor, S., & **Wilson, A. M.** (2009). Identifying hotspots for plant invasions and forecasting focal points of further spread. *Journal of Applied Ecology*, 46:1219–1228. doi:10.1111/j.1365-2664.2009.01736.x
48. Ibáñez, I., Silander, Jr. J. A., **Wilson, A. M.**, LaFleur, N., Tanaka, N., & Tsuyama, I. (2009). Multivariate forecasts of potential distributions of invasive plant species. *Ecological Applications*, 19(2):359–375. doi:10.1890/07-2095.1
49. Primack, R. B., Ibáñez, I., Higuchi, H., Lee, S. D., Miller-Rushing, A. J., **Wilson, A. M.**, & Silander, Jr. J. A. (2009). Spatial and interspecific variability in phenological responses to warming temperatures. *Biological Conservation*, 142(11):2569–2577. doi:10.1016/j.biocon.2009.06.003
50. **Wilson, A. M.**, Wake, C. P., Kelly, T., & Salloway, J. C. (2005). Air pollution, weather and respiratory emergency room visits in two northern New England cities: an ecological time-series study. *Environmental Research*, 97:312–321. doi:10.1016/j.envres.2004.07.010
51. Keim, B. D., Fischer, M. R., & **Wilson, A. M.** (2005). Are there spurious precipitation trends in the United States Climate Division database? *Geophysical Research Letters*, 32:L04702. doi:10.1029/2004GL021985
52. **Wilson, A. M.**, Salloway, J. C., Wake, C., & Kelly, T. (2004). Air Pollution and the Demand for Hospital Services: A Review. *Environment International*, 30:1109–1118. doi:10.1016/j.envint.2004.01.004
53. Keim, B. D., **Wilson, A. M.**, Wake, C. P., & Huntington, T. G. (2003). Are there spurious temperature trends in the United States Climate Division database? *Geophysical Research Letters*, 30(7):1404. doi:10.1029/2002GL016295

 INVITED KEYNOTES, PRESENTATIONS, & WORKSHOPS

● International

1. **● Wilson, A. M.**, Cardoso, A., Slingsby, J., Hestir, E. (2024) Centre for Statistics in Ecology, the Environment and Conservation at the University of Cape Town; *Early Data From BioSCape: NASA's First Biodiversity-Focused Airborne Campaign*.
2. **● Wilson, A. M.**, Cardoso, A., Slingsby, J., Hestir, E. (2024) Geoinformation Information Society of South Africa (GISSA) Western Cape General Meeting; *Early Data From BioSCape: NASA's First Biodiversity-Focused Airborne Campaign*.
3. **● Wilson, A. M.**, Cardoso, A., Slingsby, J., Hestir, E. (2024) World Biodiversity Forum in Davos, Switzerland; *Early Data From BioSCape: NASA's First Biodiversity-Focused Airborne Campaign*.
4. **● Wilson, A. M.** (2023) Fynbos Forum, Cape Town, South Africa
5. **Wilson, A. M.** (2023) NASA Biodiversity and Ecological Forecasting Team Meeting Plenary Talk, Washington, D.C.
6. **● Zarnetske, PL, B Gerstner, S Record, B Baiser, AL Strecker, A Smith, QD Read, KM Dahlin, A Latimer, Wilson, A.M.** J Costanza. 2023. Can geodiversity improve models of biodiversity and species' distributions? The Royal Society Theo Murphy meeting *Geodiversity science for society*. Nottingham, UK (16-17 January 2023).
7. Wilson, A.M., Hestir, E., Frazier, A., de Vos, A., Smit, I., Slingsby, J., Turner, W., Cardoso, A., Maitner, B.S. Moncrieff, G.R., Ramoelo, A., Bringing 'parachute science' back to Earth to improve remote sensing of biodiversity for all (2021) Workshop at the 2021 AGU Fall Meeting

8. ● **Wilson, A. M.** (2020, February). Invited presentation at the NASA Symposium and Workshop on Using Earth Observations to Understand Changes in Biodiversity and Ecosystem Function at the *2020 World Biodiversity Forum*, Davos, Switzerland.
9. ● **Wilson, A. M.** (2019, October). Mountain Long-term Social-Ecological Research and global policy agendas, Champex, Switzerland.
10. **Wilson, A. M.** (2018, December). American Geophysical Union Annual Meeting, Washington D.C.
11. **Wilson, A. M.** (2018, April). NASA Biodiversity and Ecological Forecasting Team Meeting. Washington D.C.
12. **Wilson, A. M.** (2018, April). Department of Environmental Science, Policy and Management, Berkeley, CA.
13. ● **Wilson, A. M.** (2018, February). Informing Species Distribution Models and Essential Biodiversity Variables using Remote Sensing. A joint workshop of the European Space Agency GlobDiversity consortium and the Future Earth Global Mountain Biodiversity Assessment (GMBA), Global Land Programme (GLP), and BioDISCOVERY Global Research Projects. University of Zurich, Switzerland.
14. ● **Wilson, A. M.** (2017, May). International Symposium on Remote Sensing of Environment (ISRSE-37), Tshwane, South Africa.
15. ● **Wilson, A. M.** (2017, February). University of Toronto Mississauga Csillag Seminar Series in Toronto, Ontario, Canada.
16. **Wilson, A. M.** (2016, August). Cornell Lab of Ornithology in Ithaca, NY.
17. ● **Wilson, A. M.** (2016, March). Global Biodiversity Assessment and Monitoring workshop for FutureEarth in Ascona, Switzerland.
18. ● **Wilson, A. M.** (2016, February). Department of Biology, University of Toronto Mississauga, Toronto, Ontario, Canada.
19. **Wilson, A. M.** (2015, October). Danforth Plant Science Center Biocomplexity in Natural and Agricultural Systems Fall Symposium. Missouri Botanical Garden, St. Louis, USA.
20. **Wilson, A. M.** (2014, November). Department of Geography, University at Buffalo, NY, USA.
21. **Wilson, A. M.** (2014, November). Berkeley Initiative in Global Change Biology, University of California Berkeley, CA
22. ● **Wilson, A. M.** (2014, August). Keynote Address, Fynbos Forum, Knysna, South Africa.
doi:10.6084/m9.figshare.1142275
23. **Wilson, A. M.** (2014, May). Department of Ecology and Evolutionary Biology. University of Connecticut, Storrs, CT. doi:10.6084/m9.figshare.1025883
24. **Wilson, A. M.** (2014, February). Department of Environmental Science, Policy, and Management Colloquium. UC Berkeley, Berkeley, CA. doi:10.6084/m9.figshare.947682
25. **Wilson, A. M.** (2011, June). International Workshop on climate change and phenology, Boston University, Boston, MA.
26. ● **Wilson, A. M.** (2010, August). Climate Systems Analysis Group, University of Cape Town, South Africa.
27. **Wilson, A. M.** (2009, July). South African National Biodiversity Institute, Cape Town, South Africa.

SELECTED CONFERENCE PRESENTATIONS & POSTERS

● International

★ Advisee

1. ● **Wilson, A.M.** (2024) 7th International Society for Conservation Biology Marine Conservation Congress, Cape Town, South Africa
2. **Wilson, A.M.** (2024) Annual Meeting of the Ecological Society of America (ESA)
3. **Wilson, A.M.** (2022) Annual Meeting of the American Geophysical Union
4. **Wilson, A. M.** (2022) NASA Biodiversity and Ecological Forecasting Team Meeting, Washington, D.C.
5. **Wilson, A.M.** (2021) Annual Meeting of the American Geophysical Union
6. **Wilson, A. M.** (2021) NASA Biodiversity and Ecological Forecasting Team Meeting, Washington, D.C.
7. **Wilson, A.M.** (2020) Annual Meeting of the American Geophysical Union
8. ● Slingsby, J., Moncreiff, G., **Wilson, A.M.** (2020) International Statistical Ecology Conference, Sydney, Australia
9. **Wilson, A.M.** (presenting author), Duong, M., Jetz, W., Guralnick, R. P., Ranipeta, A., Li, R., Karp, D. (2019) Annual Meeting of the American Geophysical Union
10. ★ Wei, C. and **Wilson, A. M.** (2019) Annual Meeting of the American Geophysical Union.
11. ★ Liao, Q. and **Wilson, A. M.** (2019) Annual Meeting of the American Geophysical Union.
12. Jetz, W., **Wilson, A. M.** (2019) NASA Biodiversity and Ecological Forecasting Team Meeting, Washington, D.C.

13. ● **Wilson, A. M.** (2019) International Biogeography Society Biannual Meeting, Malaga, Spain.
14. ★ Xie, Y. and **Wilson, A. M.** (2018) Annual Meeting of the American Geophysical Union.
15. ★ Wei, C. and **Wilson, A. M.** (2018) Annual Meeting of the American Geophysical Union.
16. ● Slingsby, J.A., Moncrieff G. R., Potts, A. J. and **Wilson, A. M.** (2018) Tools for monitoring vegetation from space. Keynote address at the 2018 *Thicket Forum*, Addo Elephant National Park, South Africa.
17. ● Slingsby, J. A., Moncrieff G. R. and **Wilson, A. M.** (2018) A near-real time satellite tool for monitoring and mapping ecological impacts in Fynbos. Keynote address for the South Africa Biodiversity Planning Forum 2018.
18. ★ Xie, Y. and **Wilson, A. M.** (2017) Spatiotemporal phenological changes in fall foliage peak coloration in deciduous forest and the responses to climatic variation Presented at the Annual Meeting of the American Geophysical Union (B33H-01).
19. ● Slingsby, J. A., **Wilson, A. M.**, Silander, J. A., Moncrieff, G. (2017, February) Trait controls on postfire regeneration in the Cape Floristic Region Presented at the MEDECOS, organized by the International Society of Mediterranean Ecology.
20. Merow, C., **Wilson, A. M.**, Jetz, W. (January 2017) Integrating occurrence data and expert maps to refine species range predictions. 8th Biennial Conference of the International Biogeography Society, Tucson, Arizona.
21. **Wilson, A. M.** Jetz, W. (April 1, 2016) High-resolution global cloud dynamics for environmental monitoring Annual meeting of the American Association of Geographers, San Fransisco, CA
22. Parmentier, B. McGill, B.J., **Wilson, A. M.**, Jetz, W., Guralnick, R., Guzman, Melton, F., Tuanmu, M, Amatulli, G., Regetz, J., Schildhauer, M. (2015, August) Comparison of methods for the production of high resolution global daily climate layers for species modeling. COS 147-8 Presented at the Ecological Society of America Annual Conference, Baltimore, MD, USA.
23. Slingsby, J. A., **Wilson, A. M.**, Aiello-Lammens, M. E., Merow, C., Mollmann, H. K., Silander, J. A. (2015, August) Is trait-based ecology functional? A test from a climatically stable biodiversity hotspot OOS 51-8 Presented at the Ecological Society of America Annual Conference, Baltimore, MD, USA.
24. ● Jetz, W., **Wilson, A. M.**, Tuanmu, M, Melton, F., Guzman, A., Parmentier, McGill, B.J., Guralnick, R., Amatulli, G., (2015, May) Development and use of a new suite of global, remote sensing based environmental layers for biodiversity monitoring and prediction. 36th International Symposium on Remote Sensing of Environment (ISRSE), Berlin, Germany.
25. Jetz, W., Keil, P., **Wilson, A. M.**, O'Hara, R.B., Mertes, K. and Domisch, S., (2014) Integrating Processes and Data Types for Predicting Species Distributions across Spatial Scales. Presented at the 99th ESA Annual Meeting, Sacramento, CA, August 15.
26. **Wilson, A. M.**, & Jetz, W., (2014) High-Resolution Cloud Climatology for Global Land Areas. Poster presented at the NASA Biodiversity and Ecological Forecast-ing Team Meeting, Silver Spring, MD, May 8, 2014.
27. Latimer, A. M., **Wilson, A. M.**, & Merow, C. (2014) Using Statistical Models to Study Climate-Disturbance-Plant Interactions. Presentation presented at the SAMSI Program on Mathematical and Statistical Ecology, Durham, NC, August. <http://goo.gl/NzDhwL>.
28. ● Xie Y., Allen J. M., **Wilson, A. M.**, Silander J. A. (2013) Land Surface Phenology and Climate Variation: Green-up of Deciduous Forest Communities of Northeastern North America. Institute of Botany, Chinese Academy of Sciences Invited Seminar, Beijing, China.
29. **Wilson, A. M.**, Parmentier, B., McGill, B., Guralnick, R., & Jetz, W. (2013, January). Incorporating Satellite Derived Cloud Climatologies to Improve High Resolution Interpolation of Daily Precipitation. Poster presented at the 6th Inter-national Conference of the International Biogeography Society, Miami, FL.
30. Moses, K., Noell, N., Casado, D., Rijal, R., Medina, Y., Lewis, L., Mendez, M., Caballero, P., Morales, V., **Wilson, A. M.**, Vezzani, P., Massardo, F., Sancho, L., Russel, S., Cavieres, L. A., Goffinet, B., Rozzi, R. (2013) Ecotourism with a Hand Lens in the Miniature Forests of Cape Horn: A Sustainable Pathway for Bryophyte Conservation. In *Life on Earth: Preserving, Utilizing, and Sustaining Our Ecosystems*. Minnesota, USA: Ecological Society of America.
31. Parmentier, B., McGill, B. Regetz, J., **Wilson, A. M.**, Jetz, W., Guralnick, R., Schildhauer, M., & Narro, M. (2013, January). Climate Interpolation of Daily Maximum Temperature: Improvements for the Production of Climate Datasets. Poster presented at the 6th International Conference of the International Biogeography Society, Miami, FL.
32. Keil, P., **Wilson, A. M.**, Belmaker, J., & Jetz, W. (2013, January). Downscaling of geographical distributions of individual species and species richness. Poster presented at the 6th International Conference of the International Biogeography Society, Miami, FL.

33. **Wilson, A. M.**, Silander Jr., J. A., & Latimer, A. M. (2012, October). Climatic controls on ecosystem resilience: Post-fire regeneration in the Cape Floristic Region of South Africa. Selected speaker at the RCN FORECAST New Investigators Conference: New perspectives on data assimilation in global change science, Woods Hole, MA.
34. Latimer A. M., **Wilson, A. M.**, & Silander, Jr. J. A. (2012, October). Using data from different scales to model plant population responses. Presented at the RCN FORECAST New Investigators Conference: New perspectives on data assimilation in global change science, Woods Hole, MA.
35. Keil, P., **Wilson, A. M.**, & Jetz, W. (2012, October). Combining data of different spatial resolutions to predict species' distributions at fine grain. Poster presented at the RCN Forecast New Investigators Conference: New perspectives on data assimilation in global change science in Woods Hole, MA.
36. Allen J. M., Katsuki, T., Iwamoto, K., Kobori, H., **Wilson, A. M.**, & Silander, Jr. J. A. (2012). Japanese Cherry Flowering Responses to Projected Climate Change. Presented at Phenology 2012 Conference in Milwaukee, WI.
37. Latimer A. M., Merow, C., & **Wilson, A. M.**. (2012, August). Hierarchical statistical models for ecological data: Combining explanation and prediction. Presented at the 97th Annual Meeting of the Ecological Society of America, Portland, Oregon.
38. **Wilson, A. M.**, Silander Jr. J. A., & Latimer, A. M. (2012, August). Climatic controls on ecosystem resilience: Post-fire regeneration in the Cape Floristic Region of South Africa (#36482). Presented at the 97th Annual Meeting of the Ecological Society of America, Portland, Oregon.
39. ● Kilroy, H.A., A. M. Wilson, C. Merow, & J.A. Silander Jr. (2012, July) A new method of estimating fynbos plant community composition via remote sensing, presented at Fynbos Forum, Cape St Francis, South Africa.
40. Allen, J. M., Silander Jr, J. **Wilson, A. M.**, Primack, R. B., Kobori, H., & Katsuki, T. (2011). Springtime phenological responses in a survival analysis frame-work. COS2 - Phenology. presented at the 96th Annual Meeting of the Ecological Society of America, Austin, Texas.
41. ● de Klerk, H., **Wilson, A. M.**, & Steenkamp, K. (2010). Evaluation of satellite-derived burned area products for the Fynbos, a Mediterranean shrubland. Presented at the 5th International Wildland Fire Conference, Sun City, South Africa.
42. **Wilson, A. M.**, Silander, Jr. J. A., Gelfand, A. (2010, April). Understanding Fire and Climate in Mediterranean Ecosystems: an Integrated Approach. Land Cover Land Use Change Science Team Meeting, Bethesda, MD.
43. Primack, R.B., Ibáñez, I., Higuchi, H., Lee, S. D., Miller-Rushing, A.J., **Wilson, A. M.**, & Silander, Jr. J. A. (2009, August). Forecasting trends in species phenological responses to global warming: The predictive potential of multi-site data. Presented at the 94th Annual Meeting of the Ecological Society of America, Albuquerque, NM.
44. Allen, J., Ibáñez, I., **Wilson, A. M.**, Treanor, S. A., & Silander, Jr. J. A. (2009, April). Identifying hot spots of plant species invasions and assessing foci of further spread. Presented at the Odum Conference titled Understanding and managing biological invasions as dynamic processes: Integrating information across space and time. E.N. Huyck Preserve & Biological Research Station, Rensselaerville, NY.
45. ● Belcon, A., Comita, L., Isbell, F., Linares, R., Rojas, C., & **Wilson, A. M.** (2009, May). Facilitating Global Change Research in the Tropics: Science and Data Management. Presented at the Global Change and Tropical Ecosystems Course, Organization for Tropical Studies & Pan-American Advanced Studies Institute, La Selva Biological Reserve, Costa Rica.
46. **Wilson, A. M.** (2009, April). Climate Change, Fire, & Biomass from Space. Presented to the Global Change and Tropical Ecosystems Course, Organization for Tropical Studies & Pan-American Advanced Studies Institute, La Selva Biological Reserve, Costa Rica.
47. **Wilson, A. M.** (2008, September). Implications of Climate Change in Mediter-ranean Ecosystems: Modeling Fire Dynamics. NASA Northeast Regional Space Grant Meeting, Windsor Locks, CT.
48. ● **Wilson, A. M.** (2008, May). Monitoring Wildfire from Space. Presented at the NSF-USDA International Workshop on Supercomputing Applications in Climate Sciences and Remote Sensing, Cairo, Egypt.
49. **Wilson, A. M.**, Latimer, A. M., Silander, Jr. J. A. (2007, October). The Fire-Weather Relationship in the South African Fynbos: Implications under Climate Change. Poster presented at the Integrative Graduate Education and Research Traineeship (IGERT) Conference on Sustainability to Understand Social-ecological systems, Fairbanks, Alaska.
50. Ibáñez, I., Silander, Jr. J. A., **Wilson, A. M.**, & Lafleur, N. (2007). Challenges of modeling invasive species spread. Presented at the Ecological Society of America Joint Meeting, San Jose, California.
51. ● Ibañez, I., Silander, Jr. J. A., **Wilson, A. M.**, & Lafleur, N. (2007). Modeling patterns of future plant invasions in the New England region. Colonization versus invasion: do the same traits matter?, Presented to the Federal Institute of Technology, Ascona, Switzerland.

52. Ibáñez, I., Silander, Jr. J. A., **Wilson, A. M.**, & Lafleur, N. (2007, September). Challenges of modeling invasive species spread. Seminar presented to the Department of Ecology, Evolution, and Environmental Biology, Columbia University, New York, New York.
53. Ibáñez, I., Silander, Jr. J. A., **Wilson, A. M.**, & Lafleur, N. (2007, April). Modeling patterns of future plant invasions in New England. Harvard Forest Seminar Series, Harvard University, Cambridge, MA.
54. Latimer, A. M., **Wilson, A. M.**, & Silander, Jr., J. A. (2007). Linking changing climate, productivity, and fire in the Cape Floristic Region: A spatio-temporal Bayesian analysis of fire frequency. Presented at the ESA/SER Joint Meeting, San Jose, California.
55. LaFleur, N., Ibáñez, I., Silander, Jr. J. A., Mehrhoff, L., & **Wilson, A. M.** (2007). Modeling patterns of future plant invasions in the New England region. Presented at the Connecticut Conference on Natural Resources, Storrs, CT.
56. LaFleur, N., Ibáñez, I., Silander, Jr. J. A., Mehrhoff, L., & **Wilson, A. M.** (2007, February). Modeling patterns of future plant invasions in the New England region. Presented at the Weed Science Society of America Meeting, San Antonio, Texas.
57. ● **Wilson, A. M.**, Latimer, A. M., Silander, Jr. J. A. (2007). The Fire-Weather Relationship in the South African Fynbos: Implications under Climate Change (#5608). Presented at the Society for Conservation Biology Meeting, Port Elizabeth, South Africa.
58. Wake, C. & **Wilson, A. M.** (2004). Multiple Indicators of Climate Change Over the Past Century in New England (#A42A-04). Presented at the AGU Fall meeting, San Francisco, December.

BOOK CHAPTERS

1. Record, S. K. Dahlin, P.L. Zarnetske, Read, Q., Malone, S.L., Gaddis, K., Grady, J.M., Costanza, J., Hobi, M., Latimer, A., Pau, S., **Wilson, A. M.**, Finley, A., Ollinger, S. (2020). Remote sensing of geodiversity and biodiversity. Chapter in: *Remote Sensing of Biodiversity: Using spectral signals of to understand the biology and biodiversity of plants, communities, ecosystems and the tree of life*. Springer Remote Sensing/Photogrammetry Series. Editors: Jeannine Cavender-Bares, John Gamon, Phil Townsend.

NON-PEER REVIEWED PUBLICATIONS AND OTHER SCHOLARLY ACTIVITY

● International

1. **Wilson, A. M.**, Lead author of the Ecosystem Resilience chapter of NASA's Biological Diversity and Ecological Forecasting program report to identify the questions, challenges, and opportunities to be addressed during 2020-2030.
2. **Nichemunk Environmental Niche Annotator Web service** (2019) Research and visualization tool co-developed by Co-I Wilson with two grants from NASA. mol.org/nichemunk
3. **Wilson, A. M.**, Merow, C., Slingsby, J., Frye, H., *Biodiversity Survey of the Cape (BioSCape): Monitoring dimensions of biodiversity in a megadiverse region of Southern Africa: from traits to communities to ecosystems* (2019). 65 page NASA Funded scoping proposal for a field campaign supported by NASA Grant #NNX16AQ45G.
4. Aldstadt, J., **Wilson, A. M.** [Review of the book *An Introduction to R for Spatial Analysis and Mapping*, by C. Brunsdon and L. Comber] (2016) *Journal of Regional Science* 56(3): 545-547
doi:dx.doi.org/10.1371/journal.pbio.1002415.
5. ● Bejbouji, J., **Wilson, A. M.**, Hmaidouch, A. (2006). Contribution l'etude de la biodiversite floristique du Jbel Amsitten: Inventaire et utilisation des plantes (Contribution to the study of Floral Biodiversity of Mount Amsitten: An Inventory and Utilization of Plants). Special Report of the Ministry for the Protection of Water and Forests of the Kingdom of Morocco (in French).
6. Indicators of Climate Change in the Northeast (2005) Clean Air - Cool Planet Special Report
7. **Wilson, A. M.** Campus Carbon Calculator™. Clean Air-Cool Planet Special Publication. This tool is used at over 1,200 universities across the country to estimate their greenhouse gas emissions. It has become the "tool of record" for most of the 600 signatories to the American Colleges and University Presidents Climate Commitment.

TEACHING EXPERIENCE

TEACHING OVERVIEW (WITH SEMESTERS AND NUMBER OF STUDENTS)

Semester	Class	Course Name	Student Enrollment	Student Evaluation	
				Responded	Overall Rating (out of 5)
Fall 2021	GEO 104	Environmental Science			
	GEO 511	Spatial Data Science			
Spring 2024	GEO 546	Global Change Ecology			
	GEO 446	Global Change Ecology			
Fall 2023	Sabbatical @ University of Cape Town				
Spring 2023	GEO 546	Global Change Ecology			
	GEO 446	Global Change Ecology			
Fall 2022	GEO 104	Environmental Science			
	GEO 511	Spatial Data Science			
Spring 2022	GEO 546	Global Change Ecology			
	GEO 446	Global Change Ecology			
Fall 2021	GEO 104	Environmental Science	211	96	4.4
	GEO 511	Spatial Data Science	18	12	4.8
Spring 2021	GEO 105*	Earth, Environment, and Climate Lab	196	-	*
	GEO 546	Global Change Ecology	7	5	5
	GEO 446	Global Change Ecology	8	6	5
Fall 2020	GEO 104	Environmental Science	219	139	4.4
	GEO 105*	Earth, Environment, and Climate Lab	198	-	*
	GEO 503	Spatial Data Science	18	11	4.6
Spring 2020	Negotiated course release		00		
Fall 2019	GEO 104	Environmental Science	214	83	4.1
	GEO 105*	Earth, Environment, and Climate Lab	196	-	*
	GEO 503	Spatial Data Science	17	12	4.8
Spring 2019	GEO 105*	Earth, Environment, and Climate Lab	198	-	*
	GEO 446	Global Change Ecology	9	6	4.3
	GEO 546	Global Change Ecology	5	3	+
Fall 2018	GEO 104	Environmental Science	216	88	4.7
	GEO 105*	Earth, Environment, and Climate Lab	199	-	*
	GEO 503	Spatial Data Science	14	22	4.9
Spring 2018	GEO 446	Global Change Ecology	3	0	+
	GEO 546	Global Change Ecology	4	3	+
	GEO 105*	Earth, Environment, and Climate Lab	195	-	*
Fall 2017	GEO 104	Environmental Science	193	88	4.7
	GEO 105*	Earth, Environment, and Climate Lab	233	-	*
	GEO 503	Spatial Data Science	24	19	4.9
Spring 2017	GEO 105*	Earth, Environment, and Climate Lab	176	-	*
	Negotiated course release		0		
Fall 2016	GEO 104	Environmental Science	62	18	4.3
	GEO 105*	Earth, Environment, and Climate Lab	153	-	*
	GEO 503	Spatial Data Science	18	11	4.6
Spring 2016	GEO 104	Environmental Science	42	14	4.6
	GEO 559	GIS for Environmental Modeling	5	3	4.7
Fall 2015	GEO 503	Spatial Data Science	21	17	5.0
	Negotiated course release				
Total			3072		

Note: In Fall 2021 the Geography Department switched to a 2-1 teaching schedule

STUDENT/POSTDOC RESEARCH SUPERVISION & MENTORING

Student	Date Began	Date Complete	Program / Degree	Project Title	Post-graduation Employment (if known)
Ph.D. Committee Chair					
Festus Adegbola	8/2022	-	GEO Ph.D.		Not yet graduated
Chenyang Wei	8/2016	7/2023	Geography	Spatial detection of alpine treeline ecotones in the Western United States	Postdoctoral Research Fellow Ohio University
M.S. / M.A. Committee Chair					
Jack Mernitz	8/2020	-	GEO M.S.		Not yet graduated
Willow Flood	1/2022	-	GEO M.S.		Not yet graduated
Ziqi Tang	8/2021	-	GEO M.S.		Not yet graduated
Alex Gould	8/2020	5/2022	GEO M.S.	Quantifying the Effects of Topography on Forest Structure in a Temperate Coniferous Montane Forest	Environmental Associate III, National Fuel Gas Company
Qianru Liao	8/2018	8/2020	GEO Geography	The Spatial Distribution of Plant Biodiversity in the Greater Cape Floristic Region of South Africa	PhD Student, Marine Estuarine Environment Sciences, University of Maryland College Park
Yuhao Xie	8/2017	5/2019	GEO M.S. GIS	UAV-based high-resolution multispectral investigation of forest phenology	Returned to China, Position unknown
Gillian Schwert	8/2016	5/2018	GEO M.S. Geography	Sub-Watershed Land Use Analysis and Cyanobacteria: A Finger Lakes Case Study	Environmental Specialist, Contaminated Site Remediation & Redevelopment, New Jersey Department of Environmental Protection
Li Zhang	8/2016	8/2018	GEO M.S. GIS	Comparison of two Satellite based methods for estimating gross primary production under drought conditions	Returned to China, Position unknown
Fangfei Gao	8/2016	8/2018	GEO M.S. Geography	Thesis: Spatial temporal analysis using Hierarchical Bayesian approach: effects of climate variability on primary production of Deciduous Forests of the Northeastern US	Business Intelligence Engineer for Amazon, Beijing, China
Yating Chen	8/2015	1/2018	GEO M.S. GIS	The Influence of Geographic Factors in the Urban Heat Island Effect	Ph.D. Student Iowa State University
Larry Kaminski	8/2015	8/2017	EEB M.S.	Using LiDAR To Determine Canopy Structure in the Greater Cape Floristic Region	Resources Supervisor Vale Resorts
Ph. D. Committee Member					
Collin O'Connor	8/2020	-	GEO	In progress	Not yet graduated
Keely Maynard	8/2019	-	EEB	In progress	Not yet graduated
Mitchell Hitchcock	8/2020	-	EEB	In progress	Not yet graduated
Hannah Stokes	8/2017	8/2023	GEO		Managing Director Small Planet Institute
Angela Martinez Quintana	8/2017	5/2022	EEB	Three-dimensional species distribution modeling reveals the realized spatial niche for coral recruitment on contemporary Caribbean reefs	Senior Environmental Scientist Fugro
Laura Labarge	8/2017	5/2021	EEB	The Ecology of Fear in A Wild Social Primate	Postdoc, Max Planck Institute of Animal Behavior
Heather Williams	8/2017	5/2020	EEB	From Microbiota to Macroecology: Three Levels of Purple Martin Ecology	Department of Environment and Sustainability University at Buffalo
M.S. / M.A. Committee Member					
Matthew Amoia	8/2018	5/2021	EEB	Thesis: Bee diversity in the Gardens of Buffalo, NY	Erie County Parks Bureau of Forestry
Jena Jendrowski	8/2017	5/2019	GEO M.S. Geography	Thesis: Networks of Incivility on Twitter: The Changing Geography of Hate in a New Social Media Landscape	Geographic Information Systems Analyst at Logistic Dynamics, Inc.
Postdoctoral Advisor					
Brian Maitner	2022	2024	Geography	Ecosystem Monitoring and Management Application	Assistant Professor, Department of Integrative Biology, University of South Florida
Cherie Forbes	2022	2024	Geography		
Anabelle Cardoso	2022	2025	Geography	Still Employed at UB	
Ryan Unks	2020	2022	SESYNC / Geography	Reframing rangeland systems science research in Kenya: a synthesis of social-science mixed methods to inform integrative analysis of landscape pattern and process	Researcher, Institute of Environmental Science and Technology, Universitat Autònoma de Barcelona

Yingying Xie	2016	2018	Geography	-	Assistant Professor, Department of Biological Sciences at Northern Kentucky University
Martin van Leeuwen	2017	2018	Geography	-	Started new company called MondoScope using UAV technology

PROFESSIONAL SERVICE

● International
WORKSHOP ORGANIZER

- 2024 **● Accessing Data from NASA's First Biodiversity-Focused Airborne and Field Campaign, BioSCape.** Workshop at the South African Environmental Observation Network (SAEON).
- 2024 **Radical Futures Methods for Navigating the Anthropocene**, organized by Adam M. Wilson, led by Dr. Pat Keys, Department of Atmospheric Science at Colorado State University. Workshop held in the Department of Geography, University at Buffalo on October 25, 2024.
- 2024 **Accessing Data from NASA's First Biodiversity-Focused Airborne and Field Campaign, BioSCape (SSo8).** Workshop at the annual meeting of the Ecological Society of America
- 2023 **● BioSCape Applications Workshop, Cape Town, South Africa**
- 2023 **● NASA ARSET Biodiversity Applications for Airborne Imaging Systems workshop**
- 2021 **Satellite monitoring of the Fynbos biome: identifying user needs.** The workshop at the 2021 Fynbos Forum, a regional science conference in South Africa associated with NASA Ecological Forecasting Project
- 2021 **Meaningful and equitable collaboration: How to avoid parachute science in international research.** Workshop at the 2021 Annual Meeting of the American Geophysical Union (AGU).

CONFERENCE SESSION CONVENER

- 2024 Annual Meeting of the American Geophysical Union (AGU) Session on BioSCape
- 2020 Annual Meeting of the American Geophysical Union (AGU) Session co-chair for five related sessions: Advances in the Application of Remote Sensing for Biodiversity Monitoring: Integrating Data and Models Across Scales and Technologies I-VI

WORKING GROUP INVITATION / PARTICIPATION

- 2025 Invited member of the European Space Agency's Scientific Committee for *BIOSPACE25: Biodiversity Insights from Space*, a conference scheduled to be held at ESA/ESRIN in Rome in February 2025.
- 2019-2020 **● Participant in workshop to identify the Contribution of Long-term Social-Ecological Research programs in mountains to global policy agendas and UN conventions.** Champex, Switzerland.
- 2018- NASA Biodiversity and Ecological Forecasting invited participant in 15-person working group to identify the questions, challenges, and opportunities to be addressed by NASA's Biological Diversity and Ecological Forecasting program for 2020-2030.
- 2018- Group on Earth Observation - Biodiversity Observation Network (GEO-BON) Working Group Member. Lead Scientist on NASA funded species population subgroup titled "Predicting plant abundances and their dynamics (<https://geobon.org/ebvs/working-groups/species-populations/>)
- 2018 **● GlobDiversity Working Group, European Space Agency**
- 2015-2017 Environment and Organisms Working Group Member, National Center for Ecological Synthesis & Analysis (NCEAS) Santa Barbara, CA, USA Project 12504: Choosing (and making available) the right environmental layers for modeling how the environment controls the distribution and abundance of organisms.

COMPETITIVE GRANT REVIEWER

● International

- 2019 ● United Kingdom Natural Environment Research Council (UK NERC)
- 2019 ● South African National Research Foundation (ZA NRF)
- 2019 United States National Aeronautics and Space Administration (NASA)
- 2018 United States National Science Foundation's Geography and Spatial Sciences (NSF-GSS)

MANUSCRIPT REVIEWER

1. *University of Chicago Press*
2. *Journal of the Royal Statistical Society: Series C*
3. *Biology Letters (Royal Society)*
4. *Global Ecology and Biogeography*
5. *Remote Sensing*
6. *Bioscience*
7. *Ecography*
8. *Oecologia*
9. *ISPRS Journal of Photogrammetry and Remote Sensing*
10. *International Journal of Climatology*
11. *Nature Scientific Reports*
12. *Remote Sensing of Environment*
13. *Remote Sensing in Ecology and Conservation*
14. *Biological Conservation*

PROFESSIONAL MEMBERSHIPS

Ecological Society of America, American Geophysical Union, International Biogeography Society, Society for Conservation Biology, American Association of Geographers

PROFESSIONAL WORKSHOP ORGANIZATION AND CONFERENCE SESSIONS

- 2021 AGU Workshop on Bringing 'parachute science' back to Earth to improve remote sensing of biodiversity for all organized at the 2021 Fall Meeting of the American Geophysical Union
- 2020 AGU session Advances in the application of remote sensing for biodiversity monitoring: Integrating data and models across scales and technologies co-convened with the NASA Biodiversity and Ecological Forecasting Team
- 2019 Software Workflows and Tools for Integrating Remote Sensing and Organismal Occurrence Data Streams to Assess and Monitor Biodiversity Change. NASA Biodiversity & Ecological Forecasting Team Meeting, Washington, D.C.
- 2015 Using spatial biodiversity data and remote sensing to support conservation decision-making, International Society of Tropical Foresters, Yale University, New Haven, CT
- 2015 *Integrative spatial biodiversity analysis and Map of Life*, International Biogeographic Society 7th Biennial Meeting, Bayreuth, Germany
- 2014 *Geo-spatial and environmental analysis on open-source software*, Program in Spatial Biodiversity Science & Conservation, Yale University, New Haven, CT, USA
- 2014 *Ecosystem Disturbance and Resilience*, South African National Biodiversity Institute (SANBI) & University of Cape Town, South Africa.
- 2013 *Biodiversity Informatics Workshop*, International Biogeographic Society 6th Biennial Meeting, Miami, FL

OPEN-SOURCE SOFTWARE PRODUCTS

Public code repository available at github.com/AdamWilsonLab

1. Smith, A. C. Smith, Zarnetske, P., Dahlin, K., **Wilson, A. M.**, Latimer, A. (2020) geodiv: Methods for Calculating Gradient Surface Metrics. R Package vo.1.1 cran.r-project.org/web/packages/geodiv/index.html
2. Vieilledent, G., Latimer, A. M., Gelfand, A. E., Merow, C., **Wilson, A. M.**, Mortier, F., & Silander Jr., J. A.. (2019). hSDM: hierarchical Bayesian species distribution models. R package v1.4. CRAN.R-project.org/package=hSDM

3. **Wilson, A. M.**, Merow, C., Jetz, W. (2017). bossMaps: Rasterizing species ranges with smooth decays to incorporate expert information. R package vo.9. github.com/AdamWilsonLab/bossMaps.
4. **Wilson, A. M.**, (2016). rasterAutocorr: Quickly calculate spatial autocorrelation on 2D rasters. R package vo.9. github.com/AdamWilsonLab/rasterAutocorr.

 UNIVERSITY SERVICE

DEPARTMENT OF GEOGRAPHY

- | | |
|-------------------|--|
| 2022-2023
2020 | Chaired a committee to develop the mentoring plan for the Department of Geography
Participated in College of Arts and Sciences promotional video about the Sustainability Initiative in the College |
| 2018 | Participated in College of Arts and Sciences promotional video about the Geography Department |
| 2017-2018 | Geography Website Revision Committee |
| 2016-2018 | Development of four new courses (Environmental Science; Earth, Environment and Climate Lab; Global Change Ecology, and Spatial Data Science) |
| 2015 | Organization of a Mapathon event with the Geography Graduate Student Association and “Missing Maps” organization to improve OpenStreetMap data for Khayelitsha, South Africa. |

DEPARTMENT OF ENVIRONMENT AND SUSTAINABILITY (EVS)

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| 2021 | Search Committee Member for Endowed Kikta Chair of Experiential Education |
| 2021 - | Diversity Committee Member |
| 2018 - | Participated in numerous meetings during the formation of the new department. |
| 2016-2018 | Ecology, Evolution and Behavior Program Website Committee and Calendar Updates |
| 2016 | Search Committee Member |

COLLEGE OF ARTS AND SCIENCES

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| 2020- | <i>College of Arts and Sciences</i> - Decanal-level Academic Grievance Pool |
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UNIVERSITY AT BUFFALO

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| 2024 | SUNY Empire Innovation Program (EIP) Review Board |
| 2019 | UB Professional Staff Senate Committee for Inclusion and Diversity’s conference participation: Knowing, Being, Doing: Building a Diverse & Inclusive Community at UB including breakout sessions for <i>What We Can Do: Bystander Intervention Training</i> and <i>They said WHAT? Microaggressions in Higher Education</i> . |
| 2019 | Certified National Phenology Network Local Phenology Leader. Established a group at the University at Buffalo to organize students to collect ‘citizen science’ observations of plant phenology around campus. This is connected to the GEO105 course but open to the University. |

 COMMUNITY SERVICE

COMMUNITY EDUCATION & MEDIA OUTREACH

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| 2024 | Production of <i>Spectrum of Life</i> , a film about the BioSCape project and the use of imaging spectroscopy in biodiversity research. |
| 2018-present | NASA GLOBE Program Educator. Certified to guide students to participate in NASA’s Global Learning and Observations to Benefit the Environment (GLOBE) citizen science program. I have presented about the program in the Iroquois School District (Wales, NY). |
| 2015-present | News articles about my research activities have appeared in The New York Times, Discovery Channel, National Public Radio, AAAS Science Podcast, ClimateWire, the Washington Post, BBC, Gizmodo, Wired, and others. See wilsonlab.io/#publications for details and links. |

NATURE PHOTOGRAPHY: BOOKS, PUBLICATIONS, AWARDS, PRESENTATIONS, AND EXHIBITIONS

- 2023 Photograph published in *Making the Invisible Visible in the Natural Laboratories of Chile's Extreme Zones* in the Environment and Society Portal
environmentandsociety.org/exhibitions/hand-lenses-telescopes/introduction-making-invisible-visible-natural-laboratories-chiles
- 2023 Cover photograph of a special feature "Methods in Ecological Forecasting" in *Methods in Ecology and Evolution* 14(3) doi:10.1111/2041-210X.13884
- 2023 Photograph published with the article "UConn Researchers Join NASA-Funded International Biodiversity Monitoring Project" in *UCONN Today* today.uconn.edu/2023/06/uconn-researchers-join-nasa-funded-international-biodiversity-monitoring-project
- 2019 Photo published on Phys.org to illustrate an article about co-authored manuscript in *Science*.
- 2017 Aldunate, Carlos. and Rozzi, Ricardo, eds. including photographs by **Wilson, A. M.** *Cabo de Hornos (Cape Horn)*. Chilean Pre-Columbian Art Museum, Santiago, Chile.
www.precolombino.cl/en/biblioteca/cabo-de-hornos
- 2016 Photos published in the *NY Times* (including one half-page photo in the print version) to illustrate an article about my manuscript in *PLOS Biology*.
- 2016 Photos published in the *Washington Post* to illustrate an article about my manuscript in *PLOS Biology*.
- 2012 Rozzi, R., Lewis, L., Massardo, F., Medina, Y., Moses, K., Mendez, M., Sancho, L., Vez-zani, P., Russell, S., & Goffinet, B., Photographs by **Wilson, A. M.** *Ecotourism con Lupa en el Parque Omora*. Sub-Antarctic Biocultural Conservation Program, San-tiago, Chile.
- 2012 Goffinet, B., Rozzi, R., Lewis, L., Buck, W., & Massardo, F. Photographs by **Wilson, A. M.** *Miniature Forests of Cape Horn: Ecotourism with a Hand Lens*. University of North Texas Press, Denton, TX, USA.
- 2011 Co-organizer of *Connecting Through the Lens*, Legacy Institute for Nature & Culture
- 2011 Multi-media mentor for the production of a short film, *Reconnecting the Rio Grande Valley*, developed by the winners of the 2011 NANPA college scholarship. The film is currently being shown by the U.S. Fish and Wildlife Service. <http://vimeo.com/21488710>
- 2011 Field Photographer for a National Science Foundation funded project (Integrating ecological sciences and environmental philosophy for bio-cultural conservation in the temperate and subantarctic Ecoregions of southern South America) in the Chilean Patagonia. Products included photographic contributions to: outreach and educational materials for the Omora Ethnobotanical Park, articles in the *North Texas Daily* newspaper (2/9/2011), *La Prensa Austral* (a Chilean newspaper, 2/21/2011), the *Giornale Di Vicenza* (an Italian newspaper, January 9, 13, 14, 15, 2011), and *el Mercurio* (a Chilean newspaper, 11/13/2012) and the *BBC* (3/2/2015).
- 2010-2015 College Committee Member, North American Nature Photographers Association (NANPA)
- 2010 Photograph (Leaf Cutter Ants) displayed at the Phipps Conservatory and Botanical Gardens, Pittsburgh, PA.
- 2010 Third Place, Eco-Photo contest, Ecological Society of America
- 2010 College Photography Scholarship, North American Nature Photographers Association
- 2010 First Place, Naturally Funny competition, North American Nature Photographers Association
- 2010 100+ photographs donated to the Organization for Tropical Studies (OTS) for use in promotional literature, calendars, and newsletters.