

# BRETT RYAN SCHEFFERS

Assistant Professor  
Wildlife Ecology and Conservation  
University of Florida  
Gainesville, Florida

Website: [schefferslab.com](http://schefferslab.com)  
Email: [brett.scheffers@ufl.edu](mailto:brett.scheffers@ufl.edu)  
352-846-0570

## EDUCATION

---

2014	PhD	National University of Singapore	Singapore	(Ecology)
2010	MSc	The University of Alberta	Canada	(Ecology)
2005	BSc	Sewanee: The University of the South	USA	(Ecology) w/ Honors

## PROFESSIONAL APPOINTMENTS

---

2015 - Assistant Professor, Depart. Wildlife Ecology and Conservation, Univ. of Florida,  
2013 - 2015 Postdoctoral Research Fellow, Center for Tropical Biodiversity and Climate Change,  
James Cook University, Townsville, Queensland, Australia

## HONORS AND AWARDS

---

2021 Sloan Research Fellowship (\$75,000)  
2020 University of Florida Excellence Award for Assistant Professors (1 of 2 chosen per college)  
2019 University of Florida High-Impact Research Publication Award (1 chosen per college)  
2018 Florida Climate Institute Research Fellowship (\$6000)  
2018 Julie Denslow Research Excellence Award, Assoc. Tropical Bio. & Conservation  
2017 Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities (\$10,000)  
2016 University of Florida High-Impact Research Publication Award (1 chosen per college)  
2016 Global Fellow award for International Research (UFIC, Univ. of Florida; \$4000)  
2016 Carbon Brief top 10 paper award (Scheffers et al. 2016 *Science*, ranked #8 of all climate change papers published in 2016)

## PUBLICATIONS

---

I have **80 publications** in international peer-reviewed journals, books, and popular articles. My **h-index = 31**, **i10-index = 43**, and total **citations = 5811** (as per Google Scholar Citations). My Williams & Scheffers 2013 popular article on climate change received over 15,000 readers and over 200 comments and Scheffers & Watson 2016 popular article in *The Conversation* received >62,000 readers, 270 tweets, and 731 Facebook shares.

~Students/Post doc under my supervision are underlined

### PEER-REVIEWED

#### 2022

73. Morton, O., **B.R. Scheffers**, T. Haugaasen, D.P. Edwards. 2022. Effective protection of threatened species traded under CITES. **Current Biology**

72. Khazan, E. S., J. Haggard, I.C. Ríos Málaver, P. Shirk, **B.R. Scheffers**, 2022. Disentangling

drivers of thermal physiology: Community - wide cold shock recovery of butterflies under natural conditions. **Biotropica**.

71. Lembrechts, Jonas J., et al. Global maps of soil temperature. **Global Change Biology** (2021).

## 2021

70. Leahy, L., **Scheffers, B.R.**, Williams, S.E. and Andersen, A.N., 2021. Arboreality drives heat tolerance while elevation drives cold tolerance in tropical rainforest ants. **Ecology**, p.e03549.

69. Borden, J. B., Bohlman, S., **Scheffers, B. R.** (2021). Niche lability mitigates the impact of invasion but not urbanization. **Oecologia** doi.org/10.1007/s00442-021-05039-x

68. Hu, Y., **Scheffers, B.**, Pan, X., Hu, H., Zhou, Z., Liang, D., ... & Gibson, L. (2021). Positive abundance–elevational range size relationship weakened from temperate to subtropical ecosystems. **Journal of Animal Ecology** 90: 2623-2636.

67. De Lombaerde, E., Vangansbeke, P., Lenoir, J., Van Meerbeek, K., Lembrechts, J., Rodríguez-Sánchez, F., Luoto, M., **Scheffers, B.**, Haesen, S., Aalto, J. and Christiansen, D.M., 2021. Maintaining forest cover to enhance temperature buffering under future climate change. **Science of The Total Environment**, 151338.

66. Edwards, D.P., D'Cruze, N., Altherr, S., Hughes, A., Janssen, J., Nijman, V., Pasachnik, S.A., **Scheffers, B.R.**, Shepherd, C.R., Sy, E. and Auliya, M., 2021. The dangers of misrepresenting wildlife trade: response to Natusch et al. 2021. **Conservation Biology** 35: 1692-1694.

65. G Hill, G.M., A. Y. Kawahara, J.C. Daniels, p C.C Bateman, **B.R. Scheffers**. 2021. Climate change effects on animal ecology: butterflies and moths as a case study. **Biological Reviews** 96: 2113-2126

64. Oliveira, B., G. Yogo, D.A. Hahn, J. Yongxing, **B.R. Scheffers**. 2021 Community-wide seasonal shifts in thermal tolerances in mosquitoes. **Ecology** e033368 DOI:10.1002/ecy.3368

63. Morton, O., **B.R. Scheffers**, T. Haugaasen, D.P. Edwards. 2021. Impacts of wildlife trade on terrestrial biodiversity. **Nature Ecology and Evolution** 5: 540-548.

62. Fan, X.L., Z.H., Lin, **B.R. Scheffers**. 2021. Physiological, developmental, and behavioral plasticity in response to thermal acclimation. **Journal of Thermal Biology** 97: 102866.

61. De Frenne, P., J. Lenoir, M. Luoto, **B.R. Scheffers**, F. Zellweger, J. Aalto, M.B. Ashcroft, D.M. Christiansen, G. Decocq, K. De Pauw, S. Govaert, C. Greiser, E. Gril, A. Hampe, T. Jucker, D.H. Klinges, et al., 2021. Forest microclimates and climate change: Importance, drivers and future research agenda. **Global Change Biology** 27:2279-2297

60. Leahy, L., **B.R. Scheffers**, A.N. Andersen. B. T. Hirsch, and S.E. Williams. 2021. Vertical niche and elevation range size in tropical ants: Implications for climate resilience. **Diversity and Distributions** 27: 485-496. doi.org/10.1111/ddi.13210

59. Klinges, D. H. and **B.R. Scheffers**. 2021. Microgeography, not just latitude, drives climate overlap

on mountains from tropical to polar ecosystems. **The American Naturalist** 197: 75-92.  
doi.org/10.1086/711873

58. Basham, E. W., R. Saporito, M., González-Pinzón, A. Romero-Marcucci, and **B.R. Scheffers**. 2021 Chemical defenses shift with the seasonal vertical migration of a Panamanian poison frog. **Biotropica** 53: 28-37 doi.org/10.1111/btp.12842

## 2020

57. Leahy, L., **B.R. Scheffers**, S.E. Williams, and A.N. Andersen. Diversity and distribution of the dominant ant genus *Anonychomyrma* (Hymenoptera: Formicidae) in the Australian Wet Tropics. **Diversity** 12: 474. doi:10.3390/d12120474

56. González-del-Pliogo, P., **B.R. Scheffers**, R.P. Freckleton, E.W. Basham, M.B. Araujo, A.R. Acosta-Galvis, C.A. Medina Uribe, T. Haugaasen, D.P Edwards. 2020. Thermal tolerance and the importance of microhabitats for Andean frogs in the context of land-use and climate change. **Journal of Animal Ecology** 89: 2451-2460. doi.org/10.1111/1365-2656.13309

55. Lembrechts, J. J., Aalto, J., Ashcroft, M. B., De Frenne, P., Kopecký, M., Lenoir, J., ... & García, R. A. (**Scheffers B.R.**; 1 of >50 co-authors). 2020. SoilTemp: a global database of near-surface temperature. **Global Change Biology** 26: 6616-6629. doi.org/10.1111/gcb.15123

54. Basham, E. and **B.R. Scheffers**. 2020. Vertical stratification collapses under seasonal shifts in climate. **Journal of Biogeography** 47: 1888-1898

53. Khazan, E., J. Bujan, J., and **B.R. Scheffers**. 2020. Patterns of ant activity and nesting ecology depend on flooding intensity in a Neotropical floodplain. **Internat. Journal of Tropical Insect Science** 40: 909-917.

52. Diesmos, A.C., **B.R. Scheffers**, N.A.D Mallari, C.D. Siler, and R.M Brown. 2020. A new forest frog of the genus *Platymantis* (Amphibia: Anura: Ceratobatrachidae: subgenus *Tirahanulap*) from Leyte and Samar islands, eastern Philippines. **Zootaxa** 4830: 573-591.

51. Oliveira, B., J.M. Flenniken, R.P. Guralnick, S.E. Williams, and **B.R. Scheffers**. 2020. Historical environmental stability drives discordant niche filling dynamics across phylogenetic scales. **Journal of Biogeography** 47:807-816

50. Oliveira, B., **B.R. Scheffers** and G.G. Costa. 2020. Decoupled erosion of amphibians' phylogenetic and functional diversity due to extinction. **Global Ecology and Biogeography** 29: 309-319

49. Seidl, C.M., Basham, E.W., and **B.R. Scheffers**. 2020. Bird's nest fern epiphytes facilitate herpetofaunal arboreality and climate refuge in two Paleotropical canopies. **Oecologia** 192:297-309.

## 2019

48. **Scheffers B.R.**, B. Oliveira, I. Lamb, and D.P. Edwards. 2019. Global wildlife trade across the tree of life. **Science** 366: 71-76

*\*Scheffers et al 2019 Science received an Altmetric score of 874. Press coverage by 55 News Outlets*

47. **Scheffers B.R.** and G. Pecl. 2019. The future of biodiversity under climate change – persecuted, protected, or ignored? **Nature Climate Change** 9: 581-586

*\*Highlighted in Nature Climate Change Editorial (Nat. Clim. Chang. 10, 377 (2020))*

46. González-del-Pliego, P., Freckleton, R.P., Edwards, D.P., Koo, M.S., **Scheffers, B.R.**, Pyron, R.A. and Jetz, W., 2019. Phylogenetic and trait-based prediction of extinction risk for data-deficient amphibians. **Current Biology** 29: 1557-1563.

45. De Frenne, P., F. Zellweger, F. Rodríguez-Sánchez, **B.R. Scheffers**, K. Hylander, M. Luoto, M. Vellend, K. Verheyen, and J. Lenoir. 2019. Global buffering of temperatures under forest canopies. **Nature Ecology and Evolution** 3: 744

*\*Highly cited paper in Ecology/Environment (Essential Science Indicators)*

44. Oliveira, B. and **B.R. Scheffers**. 2019. Vertical stratification influences global patterns of biodiversity. **Ecography** 42:249-258

43. Basham, E.W., C.M. Seidl, L.R. Andriamahohatra, B.F. Oliveira, and B.R. Scheffers. 2019. Distance-decay differs among vertical strata in a tropical rainforest. **J. Anim. Ecology** 88:114-124

## 2018

42. Simmons, C. S., L. Famolare, M. N. Macedo, R. T. Walker, M. T. Coe, **B.R. Scheffers**, E. Arima, R. Munoz-Carpena, D. Valle, and C. Fraisse. 2018. Science in support of Amazonian conservation in the 21st century: the case of Brazil. **Biotropica** 50: 850-858.

41. Nowakowski, J.A., L.O. Frishkoff, M. Agha, B. Todd, and **B.R. Scheffers**. 2018. Changing thermal landscapes: merging climate science and landscape ecology through thermal biology. **Current Landscape Ecology Reports** 3: 57-72.

40. Edwards, D.P., and **B.R. Scheffers**. 2018. Lincoln's sparrow *Melospiza lincolni*: first record for Colombia and second record for South America. **Cotinga** 40: 92-93.

39. Dufour, P.C., K.R. Willmott, P.S. Padron, S. Xing, T.C. Bonebrake, and **B.R. Scheffers**. 2018. Divergent melanism strategies in Andean butterfly communities structure diversity patterns and climate responses. **Journal of Biogeography** 45: 2471-2484.

38. **Scheffers, B.R.** and S.E. Williams. 2018. Tropical mountain passes are out of reach – but not for arboreal species. **Frontiers in Ecology and the Environment** 16:101-108

37. Bonebrake, T. C., C. J. Brown, J. D. Bell, J. L. Blanchard, A. Chauvenet, C. Champion, I.-C. Chen, T. D. Clark, R. K. Colwell, F. Danielsen, A. I. Dell, J. M. Donelson, B. Evengård, S. Ferrier, S. Frusher, R. A. Garcia, R. B. Griffis, A. J. Hobday, M. A. Jarzyna, E. Lee, J. Lenoir, H. Linnetved, V. Y. Martin, P. C. McCormack, J. McDonald, E. McDonald-Madden, N. Mitchell, T. Mustonen, J. M. Pandolfi, N. Pettorelli, H. Possingham, P. Pulsifer, M. Reynolds, **B.R. Scheffers**, C. J. B. Sorte, J. M. Strugnell, M.-N. Tuanmu, S. Twiname, A. Vergés, C. Villanueva, E. Wapstra, T. Wernberg, and G. T. Pecl. 2018. Managing consequences of climate-driven species redistribution requires integration of ecology, conservation and social science. **Biological Reviews** 93:284-305

## 2017

36. Greenspan, S.E., D.S Bower, E.A. Rosnik, D.A Pike, G. Marantelli, R.A. Alford, L. Schwarzkopf, and **B.R. Scheffers**. 2017. Infection increases vulnerability to climate change via effects on host thermal tolerance. **Scientific Reports** 7: 9349
35. Evans, J.P., K.K. Cecala, **B.R. Scheffers**, C.A. Oldfield, N.A. Hollingshead, D. Haskell, and B.A. McKenzie. 2017. Widespread degradation of a vernal pool network in the southeastern United States: Challenges to current and future management. **Wetlands** 37:1093-1103
34. **Scheffers, B.R.**, L. Shoo, B. Phillips, S. L. Macdonald, A. Anderson, J. VanDerWal, C. Storlie, A. Gourret, and S. E. Williams. 2017. Vertical (arboreality) and horizontal (dispersal) movement increase the resilience of vertebrates to climatic instability. **Global Ecology Biogeography** 26: 787-798.
33. Pecl, G.T., M.B. Araújo, J.D. Bell, J. Blanchard, T.C. Bonebrake, I-Ching Che, T.D. Clark, R.Colwell, F. Danielsen, B. Evengård, L. Falconi, S. Ferrier, S. Frusher, R.A. Garcia, A.J. Hobday, C. Janion-Scheepers, M.A. Jarzyna, S. Jennings, J. Lenoir, H.I. Linnetved, V.Y. Martin, P. C. McCormack, J. McDonald, N.J. Mitchell, T. Mustonen, J.M. Pandolfi, N. Pettorelli, E. Popova, Sharon A. Robinson, **B.R. Scheffers**, J.D. Shaw, C.J. B. Sorte, J.M. Strugnell, J.M. Sunday, M.-N. Tuanmu, A. Vergés, C. Villanueva, T.Wernberg, E. Wapstra, S. E. Williams. 2017. Biodiversity redistribution under climate change: impacts on ecosystems and human well-being. **Science**. 355:6332, eaai9214.  
*\*Highly cited paper in Ecology/Environment (Essential Science Indicators)*
32. **Scheffers, B. R.**, D. P. Edwards, S. L. Macdonald, R. A. Senior, L. R. Andriamahohatra, N. Roslan, A. M. Rogers, T. Haugaasen, P. Wright, and S. E. Williams. 2017. Extreme thermal heterogeneity in structurally complex tropical rainforests. **Biotropica** 49: 35-44.
- 2016**
31. **Scheffers, B. R.**, L. De Meester, T. C. L. Bridge, A. A. Hoffmann, J. M. Pandolfi, R. T. Corlett, S. H. M. Butchart, P. Pearce-Kelly, K. M. Kovacs, D. Dudgeon, M. Pacifici, C. Rondinini, W. B. Foden, T. G. Martin, C. Mora, D. Bickford, and J. E. M. Watson. 2016. The broad footprint of climate change from genes to biomes to people. **Science** 354: 7671  
*\*Received an Altmetric score of 1448; ranking it the 8<sup>th</sup> most impactful climate change paper published in 2016. Press coverage by 79 News Outlets.  
 Highly cited paper in Ecology/Environment (Essential Science Indicators)*
30. Young, B.E., T. Martin, J. Watson, W.B. Foden, S. Williams and **B.R. Scheffers**. 2016. Setting climate change vulnerability assessment goals and objectives. In W.B. Foden and B.E. Young, editors. IUCN SSC Guidelines for Assessing Species' Vulnerability to Climate Change. Version 1.0. **IUCN Species Survival Commission** No. 59. Gland, Switzerland and Cambridge,UK. pp 33–48
29. Xing, S., T. Bonebrake, C.C. Tang, E.J. Pickett, W. Cheng, S.E Greenspan, S.E. Williams, and **B.R. Scheffers**. 2016. Cool habitats support darker and bigger butterflies in Australian tropical forests. **Ecology and Evolution** 6: 8062-8074
28. Harrison, R.D., R. Sreekar, J. F. Brodie, S. Brook, M. Luskin, H. O'Kelly, M. Rao, **B.R. Scheffers**, and N. Velho. 2016. Impacts of hunting on tropical forests in Southeast Asia. **Conservation Biology** 30: 972-981.
27. González del Pliego, P., **B.R. Scheffers**, E. W. Basham, P. Woodcock, C. Wheeler, J. J. Gilroy, C. A. Medina Uribe, T. Haugaasen, R. P. Freckleton, and D. P. Edwards. 2016. Thermally buffered

microhabitats recovery in tropical secondary forests following land abandonment. **Biological Conservation** 201: 385-395.

26. **Scheffers, B.R.** and C.A. Paszkowski. 2016. Large body size for metamorphic wood frogs in urban stormwater wetlands. **Urban Ecosystems** 19: 1-13

25. Furman, B.L.S., **B.R. Scheffers**, M. Taylor, C. Davis, and C.A. Paszkowski. 2016. Limited genetic structure in a wood frog (*Lithobates sylvaticus*) population in an urban landscape inhabiting natural and constructed wetlands. **Conservation Genetics** 17: 1-12.

## 2015

24. Pacifici, M., W. B. Foden, P. Visconti, J. E. M. Watson, S. H. M. Butchart, K. M. Kovacs, **B.R. Scheffers**, D. G. Hole, T. G. Martin, H. R. Akçakaya, R. T. Corlett, B. Huntley, D. Bickford, J. A. Carr, A. A. Hoffmann, G. F. Midgley, P. Pearce-Kelly, R. G. Pearson, S. E. Williams, S. G. Willis, B. Young, and C. Rondinini. 2015. Assessing species vulnerability to climate change. **Nature Climate Change** 5: 215-224

*\*Highly cited paper in Ecology/Environment (Essential Science Indicators)*

## 2014

23. **Scheffers, B.R.**, T.A. Evans, S.E. Williams, and D.P. Edwards. 2014. Microhabitats in the tropics buffer temperature in a globally coherent manner. **Biology Letters** 10: 20140819

22. **Scheffers, B.R.**, B. Phillips and L.P. Shoo. 2014. *Asplenium* bird's nest ferns in rainforest canopies are climate-contingent refuges for frogs. **Global Ecology and Conservation** 2:37-46.

21. **Scheffers, B.R.**, D.P., Edwards, A. Diesmos, S.E. Williams and T.A. Evans. 2014. Microhabitats reduce animals' exposure to climate extremes. **Global Change Biology** 20: 495-503.

*\*Highly cited paper in Ecology/Environment (Essential Science Indicators)*

## 2013

20. Evans, J. E., **B.R. Scheffers**, and M. Hess. 2013. Effect of laurel wilt invasion on redbay populations in a maritime forest community. **Biological Invasions** 16: 1581-1588

19. **Scheffers, B.R.**, B.S. Furman, and J. Evans. 2013. Salamander populations persist following loss of terrestrial habitat surrounding ephemeral ponds. **Herpetological Conservation Biology** 8: 715-723

18. **Scheffers, B.R.**, B. L. Phillips, W.F. Laurance, N.S. Sodhi, A. Diesmos, and S. E. Williams. 2013. Increasing arboreality with altitude: a novel biogeographical dimension. **Proceedings of the Royal Society B** 280: 20131581.

17. **Scheffers, B.R.**, R.M. Brunner, S.D. Ramirez, L.P. Shoo, A. Diesmos, and S.E. Williams. 2013. Thermal buffering of microhabitats is a critical factor mediating warming vulnerability of frogs in the Philippine biodiversity hotspot. **Biotropica** 45: 628-635

16. **Scheffers, B.R.** and C.A. Paszkowski. 2013. Influence of natural habitat features on amphibian occurrence in urban stormwater wetlands. **Landscape and Urban Planning** 113: 139-149

15. Hocking, D. J., G.M. Connette, C.A. Conner, **B.R. Scheffers**, S. E. Pittman, W. E. Peterman, and R. D. Semlitsch. 2013. Effects of experimental forest management on a terrestrial, woodland salamander in Missouri. **Forest Ecology and Management** 287: 32-39

14. Zozaya, S., **B.R. Scheffers**, S.L. MacDonald, C.J. Hoskin, and S.E. Williams. 2013. A significant range extension for the Australian Wet Tropics skink *Eulamprus furei* (Reptilia: Squamata: Scincidae). **Memoirs of the Queensland Museum-Nature** 56: 621-624

## 2012

13. **Scheffers, B.R.**, L.P. Joppa, S.L. Pimm, and W.F. Laurance. 2012. What we know and don't know about Earth's missing biodiversity. **Trends in Ecology and Evolution** 27: 501-510

12. **Scheffers, B.R.**, R.R. Corlett, A. Diesmos, and W.F. Laurance. 2012. Local demand drives a bushmeat industry in a Philippine forest preserve. **Tropical Conservation Science** 5: 133-141.

11. **Scheffers, B.R.**, A.V. Whiting and C.A. Paszkowski. 2012. The roles of spatial configuration and scale in explaining animal distributions in disturbed landscapes: a case study using pond-breeding amphibians. Supplement 25: 101-110 (invited MS for **Raffles Bulletin of Zoology**)

10. **Scheffers, B.R.** and C.A. Paszkowski. 2012. Effects of urbanization on North American amphibian species: identifying new directions for urban conservation. **Urban Ecosystems** 15:133-147

## 2011

9. Furman, B.L.S., **B. R. Scheffers**, and C.A. Paszkowski. 2011. The use of fluorescent powdered pigments as a tracking technique for snakes. **Herpetological Conservation & Biology** 6:473-478

8. Harris, J.B.C., J.L. Reid, **B.R. Scheffers**, T.C. Wanger, N.S. Sodhi, D.A. Fordham, and B.W. Brook. 2011. Conserving imperiled species: A comparison of the IUCN Red List and US Endangered Species Act. **Conservation Letters** 5: 64-72

7. **Scheffers, B.R.**, D.L. Yong, J.B.C. Harris, X. Giam, and N.S. Sodhi. 2011. The world's rediscovered species: Back from the Brink? **PLoS ONE** 6(7): e22531.

6. Giam, X., **B.R. Scheffers**, N.S. Sodhi, D.S. Wilcove, G. Ceballos, and P.R. Ehrlich. 2011. Reservoirs of richness: least disturbed tropical forests are centres of undescribed species diversity. **Proceedings of the Royal Society B** 279: 67-76

5. **Scheffers, B.R.** and T.C. Wanger. 2011. Plastic: matching material with usage. **Frontiers in Ecology and the Environment** 9:151-152.

## 2006-2010

4. **Scheffers, B.R.** 2010. *Plethodon dorsalis* / *Eurycea lucifuga* / *Aneides aeneus*: Arboreality. **Herpetological Review** 41: 190.

3. **Scheffers, B.R.** 2010. *Pseudotriton ruber*: Habitat usage. **Herpetological Review** 41:191.

2. **Scheffers, B.R.**, E.K. McDonald, D.J. Hocking, C.A. Conner, and R.D. Semlitsch. 2009. A comparison of two artificial cover objects for monitoring amphibians and reptiles. **Herpetological Review** 40: 419-421.

1. **Scheffers, B.R.**, J.B.C. Harris, and D.G. Haskell. 2006. Avifauna associated with ephemeral ponds on the Cumberland Plateau, Tennessee. **Journal of Field Ornithology** 77: 178-183.

#### BOOK CHAPTERS

2. Williams S.E., **B.R. Scheffers**, and J. Isaac. 2014. Tropical rainforests. Pp 67-72 in: “Ten Commitments: reshaping the lucky country’s environment”, Eds. D. Lindenmayer, S. Dovers, M. Harris Olson and S. Morton. CSIRO Publishing, Melbourne.

1. Gottfried, R., C. Butler, N. Hollingshead, M. Lane, D. Lemoine, D. Williams, and **B.R. Scheffers**. 2007. Modeling land-use change and its environmental impacts on the southern Cumberland Plateau. Pgs. 58-61 in Laband, D. (ed.) Emerging issues along urban: rural interfaces 2: Linking land-use science and society.

#### OTHER PROFESSIONAL PUBLICATIONS

5. **Scheffers B.R.**, B. Oliveira, I. Lamb, and D.P. Edwards. 2019. Mischaracterizing the conservation benefits of trade (commentary). **Mongabay** <https://news.mongabay.com/2019/11/mischaracterizing-the-conservation-benefits-of-trade-commentary/>

4. **Scheffers B.R.** and J.M. Watson. 2016. Climate change is affecting life on Earth – and that’s not good news for humanity. **The Conversation** <https://theconversation.com/climate-change-is-affecting-all-life-on-earth-and-thats-not-good-news-for-humanity-66475> (>62,00 readers)

3. Williams, S.E., **B.R. Scheffers**, and L. Falconi. 2015. Let’s get serious about protecting wildlife in a warming world. **The Conversation** <https://theconversation.com/lets-get-serious-about-protecting-wildlife-in-a-warming-world-42109> (>2,500 readers)

2. Williams S.E. and **B.R. Scheffers**. 2013. As climate changes, animals move fast to escape the heat. **The Conversation** <https://theconversation.com/as-climate-changes-animals-move-fast-to-escape-the-heat-18511> (>18,000 readers and over 200 comments)

1. **Scheffers, B.R.** 2012. Climate change research Philippine biodiversity hotspot. **FrogLog** 104: 38-39

#### FUNDING

---

2022-2023	USGS Southeast Climate Adaptation Center (PI), <i>Working Group to Plan the Southeast Regional Invasive Species and Climate Change Management Network (SE RISCC)</i> . \$60,829.63
2021-2023	Sloan Foundation, 2021 Sloan Research Fellowship. (PI) <i>Early career Award</i> . \$75,000
2020-2023	National Academy of Science, Engineering, and Medicine. Healthy Ecosystems Grants. (co-PI) <i>Ecological and economic impacts of land use and climate change on coastal food webs and fisheries</i> . \$1,107,494
2020-2022	USGS Southeast Climate Adaptation Center (PI), <i>An assessment of invasive species range shifts in the southeastern USA and actions to manage them</i> . \$334,605

- 2018 USAID Partnership for Enhanced Engagement in Research Supported Partner Cooperation Supplement (US Partner) *Community-based monitoring and management of Madagascar's National Park protected areas*. \$7,684
- 2018-2020 National Geographic Society (PI) *Life in the trees: vertical stratification of frogs in wet and dry rainforests of Madagascar*. \$29,966
- 2017-2021 USAID Partnership for Enhanced Engagement in Research (US Partner) *Community-based monitoring and management of Madagascar's National Park protected areas*. \$230,000  
\*one of the first climate change grants awarded by USAID PEER program
- 2013-2016 Research Council of Norway. *Thermal heterogeneity in human disturbed landscapes as part of Research Council of Norway (logging and oil palm in Colombia) (~\$550,000; \$30,000 to Scheffers)*.
- 2014 National Geographic Society Research and Exploration grant (PI) *Mini-ecosystems with big biodiversity: assessing the threat of human disturbance on epiphytes within rainforest canopies of Madagascar*. \$21,000
- 2014 Centre for Tropical Biodiversity and Climate Change. (PI) *Exploring the velocity of climate change: identifying future directions for assessing the impacts of climate change on species distributions and ecosystems*. Workshop associated with Association for Tropical Biology and Conservation. \$4000
- 2013 Center for Tropical Biology and Climate Change – Research Grant; James Cook University, Townsville, Australia. (PI) *Testing the arboreality hypothesis in the Australian Wet Tropics*. \$3063
- 2010-2013 National University of Singapore. (co-PI) *Understanding the biotic attrition in Southeast Asian forests*. \$108,457 (\$50,000 to Scheffers)
- 2011 Wildlife Reserves Singapore Conservation Fund. (PI) *Effects of habitat disturbance on canopy amphibians and reptiles in Southeast Asia*. \$20,379
- 2008 Ducks Unlimited (North American Waterfowl Management Plan). (PI) *Amphibian breeding, movement patterns, and habitat selection within urbanized landscapes*. \$16,466
- 2007 City of Edmonton Wetlands and Stormwater Facilities. (PI) *Amphibian breeding, movement patterns and habitat selection within urbanized landscapes: Using amphibian distribution as a means for maintaining connected natural areas*. \$19,582
- 2007 Alberta Sport, Recreation, Parks & Wildlife Foundation. (PI) *Amphibian breeding, movement patterns, and habitat selection within the city of Edmonton*. \$3,419
- 2007 Canadian Circumpolar Institute. (PI) *The effect of urbanization on the distribution and abundance of amphibians in northern cities*. \$1,350

- 2007 Alberta Conservation Association Biodiversity Grant. (PI) *Amphibian breeding, movement patterns, and habitat selection within urbanized landscapes*. \$8,817
- 2007 Ducks Unlimited (North American Waterfowl Management Plan). (PI) *Can amphibians serve as an indicator of wetland health?* \$13,604
- 2007 Friends of Elk Island National Park. (PI) *Can amphibians serve as an indicator of wetland health?* \$1,350

## TALKS AND SEMINARS

---

### INVITED SEMINARS

- 2020 Florida Fish and Wildlife Annual Meeting, Florida, USA. Host: Beth Stys
- 2019 Depart. Ecology and Evolutionary Biology, University of Kansas. Host: Rafe Brown
- 2018 Depart. Ecology and Evolution, Stony Brook University. Host: Patricia Wright
- 2017 Depart. Biology, University of Florida. Host: Bob Holt
- 2017 Depart. Ecology and Evolutionary Biology, University of Connecticut. Host: Carlos Robledo-Garcia
- 2017 Depart. Ecology and Evolutionary Biology, University of California Berkeley. Host: Caroline Williams
- 2014 Depart. of Animal and Plant Sciences, University of Sheffield, UK. Host: David Edwards
- 2013 School of Biological Sciences, University of Queensland. Host: Luke Shoo
- 2013 A. Watson Armour Seminar Series, The Field Museum, Chicago, IL. Host: Larry Heaney
- 2012 Centre for Tropical Environmental and Sustainability Science, James Cook University, Australia. Host: Bill Laurance
- 2011 Dept. of Biology, Sewanee: University of the South. Host: Jon Evans

### WORKSHOPS AND WORKING GROUPS

- 2020 Workshop, *The buffering capacity of forests in a warming world*. Oscar and Lili Lamms Minne Foundation, Stockholm, Sweden
- 2019 **Co-Organizer and convener.** Synthesis and writing workshop, *Climate change redistribution. Species on the Move*, Kruger National Park, South Africa
- 2017 Emerging Frontiers Workshop, *Co-extinctions and climate change*. Organization for Tropical Studies, La Selva, Costa Rica
- 2016 Synthesis and writing workshop, *Climate change redistribution. Species on the Move*, Tasmania, Australia
- 2016 Workshop, *Climate adaptation and scenario planning under climate change*. Florida Fish and Wildlife Conservation Commission, Homosassa Springs, FL, USA
- 2014 Working group, *Climate change vulnerability assessments*. IUCN Climate Change Specialist Group, Birdlife International, Cambridge, UK
- 2014 **Organizer and convener.** Workshop, *Exploring the velocity of climate change*. Association for Tropical Biology and Conservation, Cairns, Australia

### CONFERENCE TALKS

- 2021 (**Invited Plenary**) 8<sup>th</sup> International Canopy Conference (delayed 1YR; COVID 19)
- 2019 Species on the Move conference, Kruger National Park, South Africa
- 2018 Association for Tropical Biology and Conservation, Borneo, Malaysia

- 2017 **(Invited Symposium)** Association for Tropical Biology and Conservation, Borneo, Malaysia
- 2017 **(Invited Plenary)** Florida Climate Institute conference, Florida, USA
- 2016 Species on the Move conference, Tasmania, Australia
- 2015 **(Invited Symposium)** Association for Tropical Biology and Conservation, SE Asia Chapter Meeting, Cambodia
- 2014 Association for Tropical Biology and Conservation, Queensland, Australia
- 2013 Association for Tropical Biology and Conservation, San Jose, Costa Rica
- 2013 Ecological Society of America, Oregon, USA
- 2012 Association for Tropical Biology and Conservation, Bonito, Brazil
- 2010 Association for Tropical Biology and Conservation, Bali, Indonesia
- 2008 Wildlife Society, Chapter Meeting, Alberta, Canada
- 2005 American Ornithological Society, Quebec, Canada

#### PUBLIC SPEAKING

- 2019 Invited public lecture on climate change and panel discussion, Public Interest Environmental Conference, UF Levin School of Law, Florida, USA
- 2018 World to Come, *Merging art and science to address climate change*. Harn Art Huseum, Gainesville, FL
- 2017 Featured speaker at March for Science, climate change speech. Gainesville, FL, USA
- 2017 Invited speaker, Facing the Tide, climate change event, Alachua Conservation Trust, FL, USA

### **PROFESSIONAL SERVICE AND LEADERSHIP**

---

#### GENERAL SERVICE

- 2020 - **Contributor**, IUCN Amphibian Conservation Action Plan, Surveys and Monitoring Working Group, Amphibian Specialist Group (IUCN-SSC, ASG)
- 2020 **Expert Reviewer**, United Nations Environment Program, Climate Adaptation Gap Report UNFCCC
- 2020 - **Guest Editor, Special Issue**, *Frontiers in Forests and Global Change*
- 2019 - **Chair and Convener**, *Species on the Move* climate change conference, Naples, FL, USA (May, 2023; delayed 1-yr COVID 19)
- 2020 - **Executive Board and Data Sharing Steering Committee**, Center Valbio, Madagascar
- 2019 - **Board Member**, Alachua County Land Conservation Board
- 2019 **Symposium Chair and Theme Leader**, Species on the Move Conference, Kruger National Park, South Africa
- 2017 - **Faculty Advisory Committee**, Florida Climate Institute, University of Florida
- 2014 - **Steering Committee/Research Member**, IUCN Climate Change Specialist Group
- 2017 - 2019 **Advisory Board Member**, *Rise For The Earth*, Climate change NGO
- 2016 **Organizing Committee Member**, *Species on the Move* climate change conference, Australia (2016)
- 2012 - 2015 **Amphibian Specialist Group** (IUCN-SSC, ASG), The Philippines
- 2015 - 2016 **Research Associate**, Field Museum of Natural History, Chicago, USA

#### PEER REVIEWER

*Science* • *Ecology Letters* • *Proceedings of the National Academy of Sciences* • *Ecography* • *Proceedings Royal Society B* • *Trends in Ecology and Evolution* • *Global Change Biology* • *Global Ecology and Biogeography* • *Conservation Biology* • *Functional Ecology* • *Biology Letters* • *Oecologia* • *Biological*

*Conservation • Animal Conservation • Integrative and Comparative Biology • Biotropica • Landscape and Urban Planning • Global Ecology and Conservation • Amphibian and Reptile Conservation • International Journal of Biometeorology • Rangelands*

#### GRANT REVIEWER

2020 Natural Environment Research Council, Pushing the Frontiers call, UK  
2019 Czech Science Foundation, Czech Republic  
2018 Marsden Fund, Royal Society Te Apārangi, New Zealand  
2018 National Geographic Society conservation grant  
2017 Rainforest Trust Conservation Grant  
2017 National Geographic Society explorers grant

#### TEACHING

---

2020 Ecology of Climate Change, University of Florida  
2020 Amphibians of SE USA, University of Florida  
2019 Tropical Ecology and Climate Change (Study abroad in Ecuador), University of Florida and University of San Francisco – Quito  
2019 Ecological Responses to Climate Change, University of Florida  
2018 Tropical Ecology and Climate Change (Study abroad in Ecuador), University of Florida and University of San Francisco – Quito  
2017 Ecological Responses to Climate Change, University of Florida  
2017 Global Change Biology  
2014 Tropical Ecology for Organization for Tropical Studies (OTS) and Xishuangbanna Tropical Botanical Gardens (XTBG) (sponsored by USA National Science Foundation and Chinese Academy of Science; 2014), Yunnan, China

Additional teaching at Post-doc and Graduate Student level:

Co-taught 2 courses (2013-2014; James Cook University, Australia), Teaching Assistant for 5 courses (2010-2011; National Univ. of Singapore), Teaching Assistant for 5 courses (2007-2009; University of Alberta, Canada), and 1 year high school (VA, USA)

#### MENTORING

---

##### POST-DOCTORAL RESEARCH FELLOW

2019-2020 Dr. Xiaoli Fan (In-Lab visiting Research Scholar, Lishui University, China)  
2019 Dr. Yiming Huan (visitation from SUSTEC, China)  
2019 Dr. Rebecca Senior (visitation from Princeton University)  
2016 - 2018 Dr. Brunno Oliveira

## PRIMARY ADVISOR

- 2020 - BSc Sierra Scauzillo Honors Thesis, University of Florida  
Topic: *Characterizing the color niche of Appalachian salamanders*
- 2020 - PhD Oscar Morton (external co-Chair, Univ of Sheffield)  
Topic: *Global impacts of the wildlife trade*
- 2019 - PhD Alex Baecher University of Florida  
Topic: *Predicting spatial connectivity and range shifts of terrestrial vertebrates*
- 2019 - PhD David Klinges University of Florida  
Topic: *Forecasting microclimates across space and time*
- 2016 - PhD Edmund Basham University of Florida  
Topic: *Climatic drivers of vertical stratification of amphibian communities*
- 2016 - PhD Lily Leahy (external co-Chair, James Cook University)  
Topic: *The biogeography of vertical stratification in tropical ant communities*
- 2015 - 2018 PhD Pamela Gonzalez del Pliego Castaneda (external co-Chair, Sheffield University)  
*Amphibian conservation in the face of land-use change and global warming*
- 2016 - 2018 MSc Jesse Borden University of Florida  
*Ecological disturbances and canopy communities*
- 2016 - 2018 MSc Farwah Shariff University of Florida  
*Scaling thermal traits in space and time to understand thermal niche partitioning in aquatic macroinvertebrates*
- 2017 MSc Wendtwin Imelda Gécica Yogo (external Chair, AgroParisTech)  
*Seasonality and microhabitats mediate inter- and intraspecific variation in the minimum and maximum thermal tolerances of mosquitoes*
- 2013 - 2016 PhD Shuang Xing (external supervisor, University of Hong Kong)  
*Morphological variation of tropical lepidoptera communities across environmental gradients and implications for climate change*
- 2016 MSc Pauline Dufour (external Chair, Marie Currie University)  
*Divergent melanism strategies in Andean butterfly communities structure diversity patterns and climate responses*
- 2016 MSc Rakotoniaina “Lydou” Andriamahohatra (external Chair, Univ. of Antananarivo)  
*Climate change and decomposition of plant material in four microhabitats of Ranomafana*

## COMMITTEE/EXTERNAL EXAMINER

- 2019- Brian Jeffrey, PhD, Committee member, University of Florida, USA  
2019- Dylan Tussey, PhD, Committee member, University of Florida, USA  
2019- Jesse Borden, PhD, Committee member, University of Florida, USA

2018- Mitch Walters, PhD, Committee member, University of Florida, USA  
2021 Sanne Govaert, PhD, External Examiner, University of Gent, Belgium  
2020 Philip Shirk, PhD, Committee member, University of Florida, USA  
2019 Kristina Riemer, PhD, Committee member, University of Florida, USA  
2018 Elan Parsons, MSc, Committee member, University of Florida, USA

## NEWS COVERAGE & PUBLIC OUTREACH

---

My research has **been featured in over 200 news outlets.**

### INTERVIEW RADIO AND TELEVISION

[CTV's Your Morning, Canada's national morning show](#) – with Lindsey Deluce 7/21/2021  
Overnight show with Darryl Morris – talkRADIO London, 10/4/2019  
[Climate change will cause massive movement of wildlife.](#) WUSF NPR News, 7/15/2019  
[Can we save nature?](#) Al Jazeera Inside Story television, 5/7/2019  
Channel Africa Radio with Wandile Kallipa, South African Broadcasting Corporation. 8/7/2017

### SELECTED MEDIA COVERAGE

[Study highlights 'terrible' signs of species decline from wildlife trade.](#) **Mongabay**, 2/19/2021  
[Wildlife trafficking driving severe declines in traded species.](#) **The Guardian**, 2/15/2021  
[Wildlife trade imperils species, even in protected areas.](#) **AAAS Science Magazine**, 2/15/2021  
[Exotic animal cafes featuring otters, lizards and owls raise alarms.](#) **Scientific American**  
12/30/2020  
[Are wildlife trade bans backfiring?](#) **Knowable Magazine**, 11/13/2020  
[Should plants and animals that relocate because of climate change be considered invasive?](#) **Ensia**,  
7/21/2020  
[Climate change is toppling tree frogs from rainforest canopies.](#) **Massive Science**, 7/12/2020  
[Biodiversity on the brink: The consequences of a weakened Endangered Species Act.](#) **Yale  
Environment Review**, 1/28/2020  
[Native Species or Invasive? The distinction blurs as the world warms.](#) **Yale e360**, 1/14/2020  
\*Reposted on [PBS News Hour](#)  
[Is this fish winning climate change?](#) **FiveThirtyEight**, 11/19/2019  
[One in five species is affected by the global wildlife trade.](#) **European Scientist**, 10/10/2019  
[International wildlife trade sweeps across the 'tree of life'.](#) **Mongabay.com**, 10/7/2019  
[Sweeping extent of global trade in wild animals revealed.](#) **Nature**, 10/7/2019  
[Global wildlife trade higher than was thought.](#) **BBC News**, 10/7/2019  
[More species that you think are part of wildlife trade. These may be next.](#) **National Geographic**,  
10/5/2019  
[Wildlife trade may put nearly 9,000 land-based species at risk of extinction.](#) **PBS**, 10/3/2019  
[Wildlife trade entangles nearly a fifth of the planet's vertebrate animals.](#) **Scientific American**,  
10/3/2019  
[Climate change prompts Florida wildlife movement.](#) **Palm Beach Post**, 8/16/2019  
[The most dangerous places to live in America that are prone to natural disasters.](#) **CNBC**, 7/10/2019  
[Trade in exotic pets and endangered species 60 per cent bigger than previously thought.](#) **Telegraph**  
4/4/2019  
[Tree-dwelling animals can 'climb' away from climate change.](#) **Mongabay.com**, 2/9/2018  
[What the new climate report says about where you live.](#) **Popular Science**, 11/28/2018  
[Escalator to Extinction: How mountain species are imperiled by warming.](#) **Yale e360**, 12/13/2018  
[Microclimates: thermal shields against global warming for small herps.](#) **ConservationBytes.com**,  
11/22/2017  
Fungal infections reduce frogs tolerance of heat. **Science Daily**, 8/31/2017  
[Massive highway planned for Philippines Palawan Island.](#) **Mongabay.com**, 8/22/2017

[Climate change impacts ‘most’ species on Earth, even down to their genomes.](#) **The Guardian**, 4/5/2017

[The seasons aren’t what they used to be.](#) **New York Times**, 3/12/2017

[Climate change is altering the life on the planet.](#) **El Pais**, 11/16/2016

[New research shows wide scope of climate change impacts.](#) **NPR WMFE**, 11/16/2016

[Humans aren’t just changing the climate. We’re changing “life itself”.](#) **Bloomberg**, 11/16/2016

[What an ancient water flea could tell us about the future of humanity.](#) **World Economic Forum**, 11/15/2016

[Over 80 percent of Earth’s ecological processes already hit by climate change.](#) **Haaretz.com**, 11/15/2016

[Climate change is changing you.](#) **BirdLife International**, 11/11/2016

[Pretty much every living thing is already feeling the effects of climate change.](#) **HuffPost**, 11/10/2016

Shelter from the Storm. **New Zealand Geographic**, Issue 132, March 2015

Coastal Ga. Tree ‘ecologically extinct’. **Featured in over 40 media outlets**

[Forest Flattening](#), **Nature Climate Change**, Ecological Impacts. 10/29/2013

Climate of change in the trees. **Frontiers in Ecology and Environment** Dispatches, December 2013

[Microhabitats could buffer some rainforest animals against climate change.](#) **Mongabay.com**, 11/25/2013

[Rainforest canopies may lose life under warming.](#) **ECOS Magazine**, 9/23/2013

[Tree frogs’ descent.](#) **American Forests**, 9/16/2013

[Three-Dimensional Biodiversity.](#) **The Economist**, 9/14/2013

[Global warming may ‘flatten’ rainforests.](#) **Mongabay.com**, 9/12/2013

[3000 amphibians, 160 land mammals remain undiscovered—that is if they don’t go extinct first.](#) **Mongabay.com**, 5/18/2011

[Millions of unknown species likely in danger of extinction.](#) **The Conversation**, 7/20/2012

[What we know and don’t know about Earth’s missing biodiversity.](#) **ScienceDaily**, 7/17/2012

[What we know and don’t know about Earth’s missing biodiversity—Known unknowns.](#) **WILDLIFE EXTRA.com**, July 2012

[Endangered fruit bats, and many other species, on the menu in the Philippines.](#) **Mongabay.com**, 7/9/2012

[Over 80 percent of rediscovered species still face extinction.](#) **Mongabay.com**, 8/18/2011

[Rediscovery of disappeared species: Truly back from the brink?](#) **ScienceDaily**, 8/17/2011

[Hundreds of extinct species rediscovered.](#) **Wildlife News**, 8/15/2011

[Twenty percent of all mammals at risk of extinction.](#) **DiscoveryNews**, 8/15/2011

[3000 amphibians, 160 land mammals remain undiscovered—that is if they don’t go extinct first.](#) **Mongabay.com**, 5/18/2011

[All that slithers is gold to reptile-loving researcher.](#) **The Edmonton Journal**, 7/10/2008

[Amphibian populations dropping in Edmonton’s wetlands.](#) **PHYS.org**, 7/10/2008

[Man-made wetlands not like the real thing: study.](#) **CTV News**, 7/9/2008