# KENNETH J FEELEY

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# **EDUCATION**

Ph.D. Biology, Duke University (2005)

- \* Committee: John Terborgh (chair), Jim Clark, Bill Morris, Stuart Pimm, Miles Silman
- \* Dissertation: The effects of habitat fragmentation on tropical floral and faunal communities as mediated through trophic interactions.

B.S. Biology, Wake Forest University (1998)

\* Summa Cum Laude; Phi Beta Kappa

#### PROFESSIONAL APPOINTMENTS

Associate Professor, Department of Biology, The University of Miami (2017-present)
Research Associate, Fairchild Tropical Botanic Garden (2009-present)
Associate Professor, Department of Biological Sciences, Florida International University (2015-2017)
Assistant Professor, Department of Biological Sciences, Florida International University (2009-2015)
Postdoctoral Research Fellow, Andes Biodiversity and Ecosystem Research Group (2007-2009)
Postdoctoral Research Fellow, Center for Tropical Forest Science, Harvard University Arnold
Arboretum (2005-2007)

# **AWARDS and HONORS**

Fulbright Scholar – Colombia (2016)

Florida International University College of Arts and Sciences' award for "Excellence in Research" (2016) Florida International University Faculty Senate's award "Excellence in Advising & Mentorship" (2016) Florida International University award for "Top Scholar" (2015)

Florida International University Faculty Senate's award for "Excellence in Research" (2015)

#### PEER-REVIEWED PUBLICATIONS

NOTE: Authors who were graduate students at time that work was completed are underlined.

In review (all manuscripts are available on request)

91. Mathez-Stiefel SL, Peralvo M, Báez S, Rist S, Buytaert W, Cuesta F, <u>Fadrique B</u>, **Feeley KJ**, Groth A, Homeier J, Llambi LD, Locatelli B, López Sandoval MF, Maliza A, Young KR. Research priorities

- for the conservation and sustainable governance of Andean forest landscapes. *Mountain Research and Development.*
- 90. <u>Lif S</u> and 100+ coauthors including **Feeley KJ**. Species distribution modelling: contrasting presence-only models with plot abundance data. *Ecography*.
- 89. <u>Machovina BL</u>, and **Feeley KJ**. Potential global energy and biofuel yields from converted pastures. *Journal of Ecological Economics*.
- 88. <u>O'Connell CG</u>, Carlson KM, Cuadra S, **Feeley KJ**, West PC, Polasky S, and Foley JA. Balancing Amazonian agriculture and ecology: quantifying spatial variation in ecosystem services to identify complementary conservation strategies. *Proceedings of the National Academy of Sciences USA*.
- 87. <u>Oleas NHF</u>, **Feeley KJ**, Gebelein J, Meerow AW, and Francisco-Ortega J. Muddy boots beget wisdom: A cautionary tale for species distribution models of endangered species. *American Journal of Botany*.

#### Published or In Press

- 86. McMichael CH, Matthew-Bird F, <u>Farfan W</u>, **Feeley KJ**. 2017. Ancient human disturbances may be skewing our understanding of Amazonian forests. *Proceedings of the National Academy of Sciences USA*. 114: 522–527.
- 85. **Feeley KJ**, Stroud JT, and Perez TM. 2016. Most "global" reviews of species' responses to climate change aren't truly global. *Diversity and Distributions*. In Press.
- 84. <u>Machovina BL</u>, **Feeley KJ**, and Machovina BJ. 2016. UAV remote sensing of spatial variation in banana production. *Crop & Pasture* Science. 67: 1281-1287.
- 83. **Feeley KJ.** 2016. Using herbarium collections and plot data to track the effects of climate change on tropical forests. *Proceedings of the Royal Danish Academy of Sciences (Scientia Danica. Series B, Biologica*). In Press.
- 82. <u>Idarragad A</u>, Duque A, and **Feeley KJ**. 2016. Divergent drivers of tree community composition in lowland and highland forests of the northern tropical Andes, Colombia. *Actualidades Biológicas* 38: 145-156.
- 81. <u>Fadrique B</u>, and **Feeley KJ**. 2016. Commentary: Novel competitors shape species' responses to climate change. *Frontiers in Ecology and Evolution* 4:33.
- 80. **Feeley KJ**, and Silman M. 2016. Disappearing climates may limit the efficacy of Amazonian protected areas in a warming world. *Diversity and Distributions*. 22(11): 1081-1084.
- 79. **Feeley KJ**, Silman M, and Duque A. 2016. **COVER:** Where are the tropical plants? A call for better inclusion of tropical plants in studies investigating and predicting the impacts of climate change. *Frontiers of Biogeography*, 7(4). fb\_27602.
- 78. **Feeley KJ.** 2016. Commentary: Estimating the global conservation status of more than 15,000 Amazonian tree species. *Frontiers in Ecology and Evolution*. 4:59.
- 77. <u>Hu G</u>, **Feeley KJ**, Yu M. 2016. Habitat Fragmentation drives plant community assembly processes across life stages. PLoS ONE 11(7): e0159572.

- 76. <u>Machovina B</u> and **Feeley KJ**. 2016. Eating plants to save them. *Proceedings of the UNESCO international conference "Botanists of the 21st century: roles, challenges and opportunities"*. In Press.
- 75. <u>Perez TM, Stroud JT</u>, and **Feeley KJ.** 2016. Perspective: Thermal trouble in the tropics. *Science*. 351: 1392-1393.
- 74. Rehm, EM and Feeley KJ. 2016. Seedling transplants reveal species-specific responses of highelevation tropical treeline trees to climate change. *Oecologia*. 181(4): 1233-1242.
- 73. Rehm EM, and Feeley KJ. 2016. Many species risk mountain top extinction long before they reach the top. *Frontiers of Biogeography*. 8(1). fb\_27788.
- 72. Duque A, Stephenson P, and **Feeley KJ**. 2015. Thermophilization of adult and juvenile tree communities in the northern tropical Andes. *Proceedings of the National Academy of Sciences USA*. 112(34): 10744–10749.
- 71. **Feeley KJ** and <u>Rehm EM</u>. 2015. Correspondence: The downward shift of montane grasslands exemplifies the dual threat of human disturbances to cloud forest biodiversity. *Proceedings of the National Academy of Sciences USA*. 112 (45): E6085.
- 70. Rehm EM, Olivas P, Stroud J and Feeley KJ. 2015. Losing your edge: climate change and the conservation value of range-edge populations. *Ecology and Evolution*. 5(19): 4315–4326.
- 69. <u>Machovina BL</u>, **Feeley KJ**, and Ripple W. 2015. Biodiversity conservation: the key is reducing meat consumption. *Science of the Total Environment*. 536: 419–431.
- 68. Báez S, Malizia A, Carilla J, Blundo C, Aguilar M, Aguirre M, Aquirre Z, Álvarez E, Cuesta F, Duque A, <u>Farfán-Ríos W, García-Cabrera K</u>, Grau R, Homier, Linares-Palomino R, Malizia LR, Cruz OM, Osinaga O, Phillips OL, Reynel C, Silman MR, and **Feeley KJ**. 2015. Large-scale patterns of turnover and basal area change in Andean forests. PLoS ONE 10:e0126594.
- 67. <u>Ding Z</u>, **Feeley KJ**, <u>Hu H</u>, and Ding P. 2015. Bird guild loss and its determinants on subtropical land-bridge islands, China. *Avian Research*. 6: 1-9.
- 66. **Feeley KJ**. 2015. Are we filling the data void? An assessment of the amount and extent of plant collection records and census data available for tropical South America. *PLoS ONE*. 10:e0125629.
- 65. **Feeley KJ**. 2015. **COVER**: Moving forward with species distributions. *American Journal of Botany*. 102: 173-175.
- 64. Rehm EM and Feeley KJ. 2015. Freezing temperatures limit forest recruitment above tropical Andean treelines. *Ecology*. 96: 1856–1865.
- 63. Rehm, EM and Feeley KJ. 2015. The inability of tropical cloud forest species to invade grasslands above treeline during climate change: potential explanations and consequences. *Ecography*. 38: 1167-1175.
- 62. Slik F. and 100+ coauthors including **Feeley KJ**. 2015. An estimate of the number of tropical tree species. *Proceedings of the National Academy of Sciences USA*. 112: 7472-7477.

- 61. <u>Stroud JT</u> and **Feeley KJ**. 2015. A downside of diversity? A response to Gallagher et al. *Trends in Ecology and Evolution*. 30: 296–297.
- 60. <u>Stroud JT</u> and **Feeley KJ.** 2015. Responsible academia: Optimizing conference locations to minimize greenhouse gas emissions. *Ecography*. 38: 402–404.
- 59. Girardin CAJ, Malhi Y, **Feeley KJ**, <u>Rapp JM</u>, Silman MR, Meir P, Huaraca Huasco W, Salinas N, Mamani M, <u>Silva-Espejo JE</u>, <u>García Cabrera K</u>, <u>Farfan Rios W</u>, Metcalfe DB, Doughty CE & Aragão LEOC. 2014. Seasonality of above-ground net primary productivity along an Andean altitudinal transect in Peru. *Journal of Tropical Ecology*. 30(6): 503-519.
- 58. <u>Stroud J, Rehm E, Ladd M, Olivas P</u>, and **Feeley KJ.** 2014. Is conservation research money being spent wisely? Changing trends in conservation research priorities. *Journal of Nature Conservation*. 22(5): 471-473.
- 57. **Feeley KJ**, Rehm E, and Stroud J. 2014. There are many barriers to species migrations. *Frontiers of Biogeography*. 6(2): fb\_22006 4 pages.
- 56. <u>Machovina, B</u> and **Feeley KJ.** 2014. Meat consumption as a key impact on tropical nature: a response to Laurance et al. *Trends in Ecology and Evolution*. 29(8): 430–431.
- 55. <u>Oleas NH</u>, Meerow AW, **Feeley KJ**, Gebelein J, and Francisco-Ortega J. 2014. Using species distribution models as a tool to discover new records of *Phaedranassa brevifolia* Meerow, 1987 (Liliopsida: Amaryllidaceae) in Northern Ecuador. *Check List.* 10(3):689-691.
- 54. Duque A, **Feeley KJ**, Cabrera E, Callejas R, Idarraga A. 2014. The dangers of carbon-centric conservation for biodiversity: a case study in the Andes. *Tropical Conservation Science*. 7(2): 178-193.
- 53. **Feeley KJ** and Rehm E. 2014. Correspondence: Priorities for conservation corridors. *Nature Climate Change*. 4: 405-406.
- 52. Girardin CAJ., <u>Farfan W, Garcia K</u>, **Feeley KJ**, Jørgensen PM, Araujo Murakami A, Cayola Pérez L, Renate S, Narel P, Fuentes Carlos A, Maldonado C, Silman M, Salinas N, Reynel C, Neill D, Serrano M, Caballero J, La Torre-Cuadros MA, Macía M, Killeen T, and Malhi Y. 2014. Spatial patterns of above-ground structure, biomass and composition in a network of six Andean elevation transects. *Plant Ecology and Diversity* 7(1): 161-171.
- 51. **Feeley KJ** and Machovina B. 2014. Correspondence: Increasing preference for beef magnifies human impact on world's food web. *Proceedings of the National Academy of Sciences USA*. 111, E794-E794.
- 50. <u>Machovina, B</u> and **Feeley KJ.** 2014. Correspondence: Livestock: limit red meat consumption. *Nature* 508: 186.
- 49. <u>Machovina, B</u> and **Feeley KJ.** 2014. Correspondence: Taking a bite out of biodiversity. *Science*. 343(6173): 838.
- 48. **Feeley KJ.**, Hurtado J, Saatchi S, Silman MR, and Clark DB 2013. Compositional shifts in Costa Rican forests due to climate-driven species migrations. *Global Change Biology*. 19: 3472-2480.
- 47. <u>Machovina B</u> and **Feeley KJ.** 2013. Climate change driven shifts in the extent and location of areas suitable for export banana production. *Ecological Economics*. 95: 85-93

- 46. TerSteege H and 100+ coauthors including **Feeley KJ.** 2013. Hyper-dominance in the Amazonian tree flora. *Science*. 342: 325-334.
- 45. <u>Ding Z.</u>, **Feeley KJ**, Wang S, Wang Y, and Ding P. 2013. Patterns of bird functional diversity on land-bridge island fragments. *Journal of Animal Ecology*. 82: 781-790.
- 44. <u>Rehm EM</u> and **Feeley KJ.** 2013. Forest patches and the upward migration of timberline in the southern Peruvian Andes. *Forest Ecology and Management*. 305: 204-211.
- 43. **Feeley KJ.** 2012. Distributional migrations, expansions, and contractions of tropical plant species as revealed in dated herbarium records. *Global Change Biology*. 18: 1335-1341.
- 42. **Feeley KJ,** Malhi Y, <u>Zelazowski P</u>, and Silman M. 2012. The relative importance of deforestation, precipitation change, and temperature sensitivity in determining the future distributions and diversity of Amazonian plant species. *Global Change Biology*. 18: 2636-2647.
- 41. **Feeley KJ** and Rehm E. 2012. Amazon's vulnerability to climate change heightened by deforestation and man-made dispersal barriers. *Global Change Biology*. 18: 3606-3614.
- 40. **Feeley KJ,** Rehm EM., and Machovina B. 2012. **COVER**: The responses of tropical forest species to global climate change: acclimate, adapt, migrate, or go extinct? *Frontiers in Biogeography*. 4:69-82.
- 39. <u>Hu G</u>, Xu X, Wang Y, Lu G, **Feeley KJ**, Yu M. 2012. Regeneration of different plant functional types in a Masson pine forest following pine wilt disease. *PLoS ONE*. 7: e36432.
- 38. <u>Hu G</u>, Wu J, **Feeley KJ**, Xu G, Yu M. 2012. The effects of landscape variables on the species-area relationship during late-stage habitat fragmentation. *PLoS ONE*. 7: e43894.
- 37. Yu M, Y, <u>Hu G</u>, **Feeley KJ**, Wu J, and Ding P. 2012. Richness and composition of plants and birds on land-bridge islands: effects of island attributes and differential responses of species functional groups. *Journal of Biogeography*. 39: 1124-1133.
- 36. **Feeley KJ,** Davies SJ, Perez P, Hubbell S, Foster R. 2011. **COVER**: Directional changes in the species composition of a tropical forest. *Ecology*. 92: 871-82.
- 35. **Feeley KJ** and Silman MR. 2011. **COVER**: Keep collecting: accurate species distribution modeling requires more collections than previously thought due to temporally autocorrelated collection biases. *Diversity and Distributions*. 17: 1132-1140.
- 34. **Feeley KJ** and Silman MR. 2011. The data void in modeling current and future distributions of tropical species. *Global Change Biology*. 17: 626-630.
- 33. **Feeley KJ** and Silman MR, Bush M, <u>Farfan W, Garcia Cabrera K</u>, Malhi Y, Meir P, Salinas Revilla N, <u>Raurau Quisiyupanqui MN</u>, Saatchi S. 2011. Upward migration of Andean trees. *Journal of Biogeography*. 38: 783-791.
- 32. Hu G, **Feeley KJ**, Wu J, Xu G, Yu M. 2011. Determinants of plant species richness and nestedness in fragmented landscapes: evidence from land-bridge islands. *Landscape Ecology*. 26: 1405-1417.

- 31. <u>Maness TJ, Westbrock MA</u>, **Feeley KJ**, and Anderson DJ. 2011. Offspring sex does not influence duration of post-fledging parental care in the sexually size dimorphic Nazca Booby (*Sula granti*). *Ornitologia Neotropical* 22: 347–359.
- 30. **Feeley KJ.** 2010. Correspondence: The conservation value of secondary forests for tropical nocturnal bird species. *Animal Conservation* 13: 16-18.
- 29. **Feeley KJ** and Silman MR. 2010. Land-use and climate change effects on population size and extinction risk of Andean plants. *Global Change Biology* 16: 3215-3222.
- 28. **Feeley KJ** and Silman MR. 2010. Biotic attrition from tropical forests correcting for truncated temperature niches. *Global Change Biology* 16: 1830-1836.
- 27. Girardin CAJ, Malhi Y, Aragao LEOC, Mamani M, Huaraca W, Durand L, **Feeley KJ**, Rapp J, Silva-Espejo JE, Silman M, Salinas N, Whittaker RJ. 2010 Net primary productivity allocation and cycling of carbon along a tropical forest elevational transect in the Peruvian Andes. *Global Change Biology* 16: 3176-3192.
- 26. Li P, Ding P, **Feeley KJ,** Zhang J, and Jiang P. 2010. Patterns of species diversity and functional diversity of breeding birds in Hangzhou across an urbanization gradient. *Chinese Birds* 1:1–8.
- 25. Peres CA, Gardner TA, Barlow J, Zuanon J, Michalski F, Lees AC, Vieira IC, Moreira FMS, and **Feeley KJ.** 2010. Biodiversity conservation in human-modified Amazonian forest landscapes. *Biological Conservation* 143: 2314-2327.
- 24. Terborgh JW and **Feeley KJ**. 2010. Propagation of trophic cascades via multiple pathways in tropical forests. In: Terborgh J. W. and J. A. Estes (eds.). Pp. 125-140 *in* Trophic cascades: Predators, prey, and the changing dynamics of nature. Island Press, Washington, DC.
- 23. Farfan W and **Feeley KJ**. 2009. Deforestacion y el mercado de carbono en los bosques tropicales. *Xilema* 26: 11-16.
- 22. **Feeley KJ** and Silman MR. 2009. Extinction risks of Amazonian plant species. *Proceedings of the National Academy of Sciences* 106, 12382-12387.
- 21. **Feeley KJ** and Silman MR. 2009. Modelling Andean and Amazonian plant species responses to climate change: the effects of geo-referencing errors and the importance of data filtering. *Journal of Biogeography* 37: 733-740.
- 20. **Feeley KJ.** 2009. "Relaxation [sensu the process of species loss from islands or fragments]" *in* Encyclopedia of Islands (R. Gillespie and D. Clague, eds.). University of California Press. Pp 787-788.
- 19. Wang Y, Zhang J, **Feeley KJ**, Jiang P, Ding P. 2009. Life-history traits associated with fragmentation vulnerability of lizards in the Thousand Island Lake, China. *Animal Conservation* 12: 329-337.
- 18. Zimmermann M, Meir P, Silman MR, Fedders A, Gibbon A, Malhi Y, Urrego D, Bush M, Feeley KJ, Garcia K, Dargie G, Farfan W, Goetz B, Johnson W, Kline K, Modi A, Rurau N, Staudt B, and Zamora F. 2009. No Differences in soil carbon stocks across the tree line in the Peruvian Andes. *Ecosystems* 13: 62-74.

- 17. Chave J, Condit R, Muller-Landau HC, Thomas SC, Ashton PS, Bunyavejchewin S, Co LL, Dattaraja HS, Davies SJ, Esufali S, Ewango CEN, **Feeley KJ**, Foster RB, Gunatilleke N, Gunatilleke S, Hall P, Hart TB, Hernandez C, Hubbell SP, Itoh A, Kiratiprayoon S, LaFrankie JV, Loo de Lao S, Makana J-R, Noor MNS, Kassim AR, Samper C, Sukumar R, Suresh HS, Tan S, Thompson J, Tongco MDC, Valencia R, Vallejo M, Villa G, Yamakura T, Zimmerman JK, and Losos EC. (2008) Assessing evidence for a pervasive alteration in tropical tree communities. *PLoS Biology* 6: e45.
- 16. **Feeley KJ** and Silman MR. 2008. Correspondence: Unrealistic assumptions invalidate extinction estimates. *Proceedings of the National Academy of Sciences USA* 106: e121.
- 15. **Feeley KJ** and Terborgh JW. 2008 Direct vs. indirect effects of habitat reduction on the loss of avian species from tropical forest fragments. *Animal Conservation* 11: 353-360.
- 14. **Feeley KJ** and Terborgh JW. 2008 Correspondence: Trophic drivers of species loss from fragments. *Animal Conservation* 11: 366-368.
- 13. Terborgh JW and **Feeley KJ.** 2008. "Ecosystem decay in closed forest fragments" *in* Tropical Forest Community Ecology (WP Carson and SA Schnitzer, eds.). Blackwell Publishing. pp 308-321.
- 12. **Feeley KJ**, Wright SJ, Davies S, Noor MNS, and Kassim AR. 2007. Decelerating growth in tropical forest trees. *Ecology Letters* 10: 461-469.
- 11. **Feeley KJ**, Davies SJ, Ashton PS, Bunyavejchewin S, Noor MNS, Kassim AR, Tan S, and Chave J. 2007 The role of gap-phase processes in the biomass dynamics of tropical forests. *Proceedings of the Royal Society of London B*. 274: 2857-2864.
- 10. **Feeley KJ**, Gillespie TW, <u>Lebbin DJ</u>, and Hart HS. 2007 Species characteristics associated with extinction vulnerability and nestedness rankings of birds in tropical forest fragments. *Animal Conservation* 10: 493-501.
- 9. **Feeley KJ**, Davies S, Noor MNS, Kassim AR, and Tan S. 2007. Do current stem size distributions predict future population changes? An empirical test of intraspecific patterns in tropical trees across two spatial scales. *Journal of Tropical Ecology* 23: 191-198.
- 8. **Feeley KJ** and Terborgh JW. 2006 Habitat fragmentation and the effects of herbivore (red howler monkey) abundances on bird diversity. *Ecology* 87: 144-150.
- 7. <u>Ibanez I, Clark J, Dietze MC, Feeley KJ, Hersh M, LaDeau S, McBride A, Welch NE, and Wolosin MS. 2006.</u> Predicting biodiversity change: outside the climate envelope, beyond the species-area curve. *Ecology* 87: 1896-1906.
- 6. Terborgh JW, <u>Feeley KJ</u>, Nuñez P, <u>Balukjian B</u>, and Silman MR. 2006. Vegetation dynamics of predator-free land-bridge islands. *Journal of Ecology* 94: 253-263.
- 5. **Feeley KJ.** 2005. The role of clumped defecation in the spatial distribution of nutrients and the availability of nutrients for plant uptake. *Journal of Tropical Ecology* 21: 99-102.
- 4. **Feeley KJ** and Terborgh JW. 2005. The effects of herbivore density on soil nutrients and tree growth in tropical forest fragments. *Ecology* 86: 116-124.
- 3. <u>Feeley KJ</u>, Gillespie TG, and Terborgh JW. 2005. The utility of spectral indices from Landsat ETM+ for measuring the structure and composition of tropical dry forests. *Biotropica* 37: 508-519.

- 2. **Feeley KJ.** 2004. The effects of forest fragmentation and increased edge exposure on leaf litter accumulation. *Journal of Tropical Ecology* 20: 709-714.
- 1. **Feeley KJ.** 2003. Analysis of the avian communities of Lake Guri, Venezuela, using multiple assembly rule models. *Oecologia* 137: 104-113.

# **POPULAR PUBLICATIONS** (non-peer reviewed)

- 8. **Feeley KJ.** 2013. How much diversity grows in the Amazon? *The Tropical Garden*.
- 7. Rehm E and Feeley KJ., 2012. Saving the forests in the clouds. *The Tropical Garden*.
- 6. Hortal J, Faller K, **Feeley KJ**, Field R, Graham C, Guilhaumon F, Gavin D. 2012. Conference program and abstracts. International Biogeography Society 6th Biennial Meeting–9-13 January 2013, Miami, Florida, USA. *Frontiers of Biogeography*. 4(5).
- 5. **Feeley KJ.**, 2012. Back to the Future: old herbarium collections are our newest tool in the fight to protect tropical diversity *The Tropical Garden*. 70: 19-23.
- 4. <u>Machovina B</u> and **Feeley KJ.**, 2011. Conserving earth from Space. *The Tropical Garden*. 68: 28-32
- 3. **Feeley KJ.** 2010. Where will the tropical rainforest be in 100 years? *The Tropical Garden.* 66: 30-33.
- 2. **Feeley KJ.** 2009. "The effects of global change on tropical forests" *in* Encyclopedia of Life Science (KE. Cullen, ed.). Facts on File Press.
- 1. **Feeley KJ.** 2009. The effect of CO<sub>2</sub> on tropical forests. *The Tropical Garden*. 64: 42-45.

# PROFESSIONAL PRESENTATIONS

Conference Presentations (as presenting author)

- \* Plenary speaker: 7th National Symposium of Forests in Colombia, Medellin (2016)
- \* Plenary speaker: International meeting on "Biodiversity and Conservation of the Tropical Andes and the Amazon Rainforest" Peru (2015)
- \* Plenary speaker: International Symposium on "Tropical Plant Collections: Legacies from the past? Essential tools for the future?" Denmark (2015)
- \* Plenary speaker: Science Symposium of the Global Biodiversity Information Facility (2013)
- \* Plenary speaker: Coloquio Estudiantil, Instituto de Ecología, México (INECOL) (2011)
- \* Plenary speaker: The International Biogeography Society's Early Career Conference (2011)
- \* Annual Meeting of the International Biogeography Society (2011)
- \* Annual Meeting of the Ecological Society of America (2001, '03, '05, '07, '10, '12, '16)
- \* Annual Meeting of the Association of Tropical Biology and Conservation (2002, '06, '08, '09, '13)
- \* Annual Meeting of the Andes Biodiversity and Ecosystems Research Group (2008, '09, '10, '12, '13, '15)
- \* Student Conference on Conservation Science (2005)

# University Seminars

- \* Archbold Biological Station (2016)
- \* Florida International University, QBIC "Confluence" seminar series (2014)

- \* Florida International University, Department of Biological Sciences (2014)
- \* University of Nebraska, Department of Biological Sciences (2014)
- \* Carnegie Institution for Science (at Stanford), Department of Global Ecology (2014)
- \* University of Colorado at Boulder, Department of Geography (2014)
- \* North Carolina State University, Department of Biological Sciences (2014)
- \* Zhejiang University China, Department of Biology (2013)
- \* Smithsonian Tropical Research Institute, Center for Tropical Forest Science (2012)
- \* Smithsonian Tropical Research Institute, Tupper Seminar Series (2012)
- \* University of Minnesota, Department of Plant Sciences (2012)
- \* Florida Atlantic University, Department of Biology (2012)
- \* Universidad Nacional de San Antonio Abad del Cusco, Peru (2012)
- \* Servicio Nacional de Areas Naturales Pretegidas por el Estado, Peru (2012)
- \* Duke University, Nicholas School of the Environment (2011)
- \* University of Miami, Department of Biology (2010)
- \* University of Florida, Tropical Research and Education Center (2010)
- \* Florida International University, Environmental Studies Program (2010)
- \* Florida International University, Plant Talk Seminar Series (2010)
- \* Instituto Nacional de Recursos Naturales, Peru (2009)
- \* Florida International University, Department of Biology Marine Science Program (2009)
- \* Zhejiang University China, Department of Biology, 2x (2009)
- \* Fundación Instituto Botánico de Venezuela, 2x (2009)
- \* Florida International University, Department of Biology (2009)
- \* Portland State University, Department of Biology (2009)
- \* Harvard University, Department of Organismal and Evolutionary Biology (2008)
- \* University of California Davis, Department of Plant Sciences (2008)
- \* University of California San Diego, Department of Biology (2008)
- \* Florida Institute of Technology, Department of Biology (2008)
- \* Wake Forest University, Department of Biology (2007)
- \* Harvard University, Harvard University Herbarium (2007)
- \* SUNY Stony Brook, Department of Ecology and Evolutionary Biology (2006)
- \* University of California LA, Department of Ecology and Evolutionary Biology (2006)
- \* University of Rhode Island, Department of Biological Sciences (2006)
- \* Duke University, Department of Biology, Program in Ecology (2005)
- \* Wake Forest University, Department of Biology (2005)
- \* Harvard University, Arnold Arboretum (2004)
- \* Rice University, Department of Ecology and Evolutionary Biology (2004)

# **GRANTS and AWARDS**

# Active:

CAREER: Measuring the thermal tolerances of individuals, populations, and species and predicting plant species' responses to climate change in the tropical Andes

Funding organization: NSF DEB CAREER

Award Amount: \$800,000 Project Duration: 2014-2019

Role on grant: PI

Collaborative Research: Understanding range limits and plant migration in response to climate change in neotropical montane forests: moving from observational models to mechanisms

Funding organization: NSF DEB Population and Community Ecology Cluster

Award Amount: \$160,000 to KJF; \$380,000 total

Project Duration: 2013-2016

Role on grant: PI

# Completed:

# Strengthening local capacity for prioritizing conservation research and action in the Colombian Andean-Amazon: A networked approach

Funding organization: USAID HED Initiative for Conservation in the Andes/Amazon

Award Amount: \$750,000 Project Duration: 2013-2015

Role on grant: Co-PI

# Tropical Rainforest Ecology and Conservation

Funding organization: Fairchild Tropical Botanic Garden

Award Amount: \$185,000 Project Duration: 2010-2015

Role on grant: PI

# Will freezing tolerances determine the ability of tropical plant species to persist in the face of global warming?

Funding organization: Florida International University; International Center for Tropical Botany

Award Amount: \$3,000 Project Duration: 2014 Role on grant: PI

# Horizontal refugia and the effects of climate change on plant distributions in the Peruvian Andes.

Funding organization: National Geographic Society Committee for Research and Exploration

Award Amount: \$22,400 Project Duration: 2012 & 2013

Role on grant: PI

# The impacts of climate change on distributions of Andean tree species

Funding organization: Amazon Conservation Association

Award Amount: \$18,950 Project Duration: 2007 & 2008

Role on grant: PI

#### COURSES TAUGHT at FLORIDA INTERNATIONAL UNIVERSITY

Ecology PCB3043 (average enrollment = 200)

Ecology Lab PCB3043L (average enrollment = 125 [5 sections of 25 each])

Plant Conservation Biology BOT4401 (average enrollment = 35)

Advanced Plant Conservation Biology PCB5046 (average enrollment = 5)

Species Distribution Modeling Workshop (average enrollment = 15)

# ADDITIONAL TEACHING EXPERIENCE

Wake Forest University: Conservation Biology (included field component in Nicaragua); 2009.

Organization for Tropical Studies: Ecosistemas Amazónicos y Cambios Globales (taught in Spanish in Peru); 2008.

Universidad de la Amazonia and FIU: Diseño de Muestreo y Técnicas de Campo para la Conservación de la Biodiversidad de la Amazonía (taught in Spanish in Florencia, Colombia); 2013.

Pontificia Universidad Javeriana de la Compañía de Jesús and FIU: Básicos de análisis y modelación de las distribuciones de especies (taught in Spanish in Bogota, Colombia); 2014.

Universidad Nacional de Colombia and FIU: Conservación de la Biodiversidad Amazónica: Áreas Protegidas e Influencias de Escala (taught in Spanish in Leticia, Colombia); 2014.

Amazon Center for Environmental Education and Research. *Introducción al Método Científica y Técnicas de Campo Para los Profesores de Ciencias* (taught in Spanish in Puerto Maldonado, Peru); 2015.

#### **GRADUATE STUDENTS**

# **Current Doctoral Students:**

James Stroud – Matriculated Fall 2012; Expected completion in Spring 2017.

Dissertation Project: Testing adaptive radiation theory using introduced species of anolis lizards.

Belen Fadrique Jimenez-Matriculated Fall 2014; Expected completion in Spring 2019.

Dissertation Project: To Be Determined

Timothy Perez – Matriculated Fall 2014; Expected completion in Spring 2019.

Dissertation Project: To Be Determined

Catherine Bravo Avila - Matriculated Fall 2014; Expected completion in Spring 2018.

Dissertation Project: To Be Determined

Christine Pardo – Matriculated Fall 2016; Expected completion in Spring 2021.

Dissertation Project: To Be Determined

# Past Doctoral and Masters Students:

Brian Machovina - PhD; Completed Spring 2015.

Dissertation Project: Sustainability of tropical agricultural systems under climate change.

Evan Rehm – PhD; Completed Spring 2015.

Dissertation Project: Factors determining current and future treeline in the high tropical Andes mountains.

Catherine Bravo Avila - MSc; Completed Spring 2012.

Thesis: Analyzing root:shoot ratio and specific leaf area along an elevational gradient in the Peruvian Andes

#### PROFESSIONAL SEVICE and SYNERGISTIC ACTIVITIES

Founding and active faculty Sponsor for the GLADES student ecologist group at Florida International University. This group is a chapter of ESA's Strategies for Ecology Education, Diversity and Sustainability (SEEDS) program and has the explicit goal of encouraging Hispanic and other minority students from FIU to pursue graduate school and careers in the ecological sciences. GLADES was named ESA's 2015 SEEDS chapter of the year.

Local Host and Organizer for the 6th Biennial Conference of the International Biogeography Society held in Miami in January 2013. This meeting included approximately 350 presentations by 450 attendees representing 46 different countries.

Co-Founder and Co-Organizer of the Fairchild Tropical Botanic Garden's annual symposium on Tropical Biology held annually 2011-2015. Each of these symposium included speakers from multiple academic and professional institutions, attracted >120 attendees, and led to several new inter-institutional collaborations.

Co-Organizer and Instructor for multiple field courses and workshops taught in Spanish in Peru and Colombia.

Florida International University's Representative on the Organization for Tropical Studies' Assembly of Delegates and member of OTS Informatics Committee.

Advisor to the Prince of Wales' Rainforest Project.

Member of the Science and Education Advisory Committee of the Amazon Center for Environment Education and Research (ACEER); Chair of sub-committee on scholarships.

Member of Florida International University's GIS Advisory Board. Member of FIU's College of Arts and Science Committee on Faculty Development

Mentor and Judge for multiple Fairchild Challenge environmental education activities. The Fairchild Challenge is one of the largest and most recognized environmental education programs in the country, reaching approximately 200,000 Miami k-12 students each year.

Subject Editor for Ecography and Diversity and Distributions.

Member of Editorial Advisory Board for Global Change Biology.

Manuscript Reviewer for top journals. Proposal reviewer for NSF, NERC, and NASA. Panel reviewer for NSF's 2010 Climate Change Education Program presidential initiative grants and for NSF's 2014 DEB Population and Community Ecology Program (preliminary proposals).

# **PROFESSIONAL REFERENCES**

John W. Terborgh (Doctoral advisor)
Research Professor Emeritus and Director, Center for Tropical Conservation
Duke University
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Miles R. Silman (Postdoctoral supervisor and collaborator)
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