

KENNETH J FEELEY

Assistant Professor of Plant Conservation Biology
T: 617-777-4817; E: kjfeeley@gmail.com

Department of Biological Sciences
Florida International University
Miami, FL 33199

Center for Tropical Plant Conservation
Fairchild Tropical Botanic Garden
11935 Old Cutler Road
Coral Gables, FL 33156

RESEARCH INTERESTS

Global Change Ecology, Plant-Animal-Ecosystem Interactions, Community Ecology, Macroecology, Conservation Biology, Forest Dynamics, Community Phylogenetics, Ecosystem Ecology

EDUCATION

Ph.D. Biology, Duke University (2005)

- * Emphasis in tropical ecology and conservation
- * 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

Study Abroad, Council for International Education and Exchange, Costa Rica (1997)

- * Tropical Ecology and Conservation Biology

PROFESSIONAL EXPERIENCE

Assistant Professor of Plant Conservation Biology, Department of Biological Sciences, Florida International University (2009-present)

Research Associate, Center for Tropical Plant Conservation, Fairchild Tropical Botanic Garden (2009-present)

Postdoctoral Research Fellow, Andes Biodiversity and Ecosystem Research Group (2007-present)

- * Project: Effects of global change on tropical montane plant distributions
- * Location: Kosnipata, Peru

Postdoctoral Research Fellow, Center for Tropical Forest Science, Harvard University (2005-2007)

- * Project: Changes in tropical forest dynamics in response to global change
- * Location: Malaysia, Thailand, Panama

Doctoral Candidate, Duke University, Department of Biology (2000-2005)

- * Dissertation: The effects of habitat fragmentation on tropical floral and faunal communities
- * Location: Lago Guri, Venezuela

Researcher (2001-2003)

- * Project: The effects of treefall gap size and orientation on pioneer plant communities
- * Location: Cocha Cashu Biological Station, Manu Peru

Research Assistant (1996-1998)

- * Project: Reproductive behavior and breeding ecology of *Sula dactylatra*
- * Location: Galapagos, Ecuador

- * Project: Influence of drainage complexity on salt marsh faunal communities
- * Location: Sapelo Island GA USA

- * Project: Long-term vegetation dynamics of old growth forests
- * Location: Great Smokey Mountains National Park TN/NC USA

TEACHING and MENTORING EXPERIENCE

Instructor, Wake Forest University (2009)

- * Conservation Biology (including field component in Nicaragua)

Instructor, Organization for Tropical Studies (2008)

- * Ecología Tropical y Conservación (taught in Peru)

Co-instructor, Wake Forest University, Department of Biology (2008)

- * Tropical Field Ecology (taught in Peru)

Guest Lecturer (2000-2008)

- * Community Ecology, Wake Forest University (3x)
- * Tropical Ecology and Conservation, Duke University (2x)
- * Ecology and Evolution of Animal Behavior, Duke University (2x)
- * Global Change Ecology, Duke University
- * Introduction to Ecology, Salem College

Mentor, SEEDS Undergraduate Ecology Program (2006)

Mentor for Undergraduate Theses (2000-2007)

- * Andrew Collins, Wake Forest University, USA
- * Diana Escalasans, Universidad Simon Bolivar, Venezuela
- * Mireya Natividad Raurau Quisiyupanqui, Universidad San Antoni Abad, Peru

Teaching Assistant, Duke University, Department of Biology (2000-2003)

- * Ecology and Evolution of Animal Behavior (2x)
- * General Ecology (2x)

Undergraduate Teaching Assistant, Wake Forest University (1997-1998)

- * Introduction to Biological Principles (2x)
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GRANTS and AWARDS

NSF Research Coordinated Networks, core participant (submitted)

* Project: Birds in changing tropical landscapes

Amazon Conservation Association's Seed Grant (2007 & 2008)

* Project: The impacts of climate change on distributions of Andean tree species

Duke Conference Travel Award (2001-2005)

Foreign Language and Area Studies Award (2004)

Duke University International Research Grant (2003)

Duke Ecology Kever Award (2002)

Sally Hughes Schrader Research Grant (2002)

Cooper Ornithological Society Student Research Grant (2001)

David L. Boren Graduate Fellowship (2001)

Frank M. Chapman Memorial Fund Research Grant (2000 & 2001)

Latin American Studies Grant (2001)

H. Branch Howe, Jr. Research Grant (2000)

NSF International Travel Grant (2000)

National Science Foundation Graduate Fellowship (1999)

PUBLICATIONS

In Press or Print

Feeley K.J., Silman M.R. 2009. Biotic attrition from tropical forests correcting for truncated temperature niches. Global Change Biology. In press

Feeley K.J., Silman M.R. 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. in press

Feeley K.J., Silman M.R. 2009. Extinction risks of Amazonian plant species. Proceedings of the National Academy of Sciences 106, 12382-12387.

Feeley, K.J. 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.

Terborgh, J.W. and **K.J. Feeley**. 2009. "High functional redundancy and diffuse vertical links create multiple pathways for the trophic cascade in tropical forests" in Trophic Cascades (J.W. Terborgh and J.A. Estes, eds.). Island Press. in press

Wang Y., Zhang J., **Feeley K.J.**, 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.

Zimmermann, M., ----- **Feeley, K.J.** et al. 2009 No Differences in Soil Carbon Stocks Across the Tree Line in the Peruvian Andes. Ecosystems.

Chave, J., R. Condit,---**K.J. Feeley**, et al. 2008. Assessing evidence for a pervasive alteration in tropical tree communities. PLoS Biology 6: e45 1-8.

Feeley, K.J. and Silman, M.R. 2008. Letter: Unrealistic assumptions invalidate extinction estimates. Proceedings of the National Academy of Sciences 106: e121.

Feeley, K.J. and J.W. Terborgh. 2008 Direct vs. indirect effects of habitat reduction on the loss of avian

species from tropical forest fragments. Animal Conservation 11: 353-360.

Feeley, K.J. and J.W. Terborgh. 2008 Response: Trophic drivers of species loss from fragments. Animal Conservation 11: 366-368.

Terborgh, J.W. and K.J. **Feeley**. 2008. "Ecosystem decay in closed forest fragments" in Tropical Forest Community Ecology (W.P. Carson and S.A. Schnitzer, eds.). Blackwell Publishing. pp 308-321.

Feeley, K.J., S.J. Wright, S. Davies, M.N.S. Noor, and A.R. Kassim. 2007. Decelerating growth in tropical forest trees. Ecology Letters 10: 461-469.

Feeley, K.J., S.J. Davies, P.S. Ashton, S. Bunyavejchewin, M.N.S. Noor, A.R. Kassim, S. Tan, and J. Chave 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.

Feeley, K.J., T.W. Gillespie, D.J. Lebbin, and H.S. Hart. 2007 Species characteristics associated with extinction vulnerability and nestedness rankings of birds in tropical forest fragments. Animal Conservation 10: 493-501.

Feeley, K.J., S. Davies, M.N.S. Noor, A.R. Kassim, and S. Tan. 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.

Feeley, K.J. and J.W. Terborgh. 2006 Habitat fragmentation and the effects of herbivore (red howler monkey) abundances on bird diversity. Ecology 87: 144-150.

Ibanez, I., J. Clark, M.C. Dietze, **K.J. Feeley**, M. Hersh, S. LaDeau, A. McBride, N.E. Welch, and M.S. Wolosin. 2006. Predicting biodiversity change: outside the climate envelope, beyond the species-area curve. Ecology 87: 1896-1906.

Terborgh, J.W, **K.J. Feeley**, P. Nuñez V., B. Balukjian, and M.R. Silman. 2006. Vegetation dynamics of predator-free land-bridge islands. Journal of Ecology 94: 253-263.

Feeley, K.J. 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.

Feeley, K.J. and J.W. Terborgh. 2005. The effects of herbivore density on soil nutrients and tree growth in tropical forest fragments. Ecology 86: 116-124.

Feeley, K.J., T.G. Gillespie, and J.W. Terborgh. 2005. The utility of spectral indices from Landsat ETM+ for measuring the structure and composition of tropical dry forests. Biotropica 37: 508-519.

Feeley, K.J. 2004. The effects of forest fragmentation and increased edge exposure on leaf litter accumulation. Journal of Tropical Ecology 20: 709-714.

Feeley, K.J. 2003. Analysis of the avian communities of Lake Guri, Venezuela, using multiple assembly rule models. Oecologia 137: 104-113.

In Review

Feeley, K.J., Davies, S.J., et al. Directional changes in tropical forest composition in response to climate change. Ecology.

Feeley, K.J. and Silman, M.R. The data void in tropical plant distribution models. Global Change Biology

Feeley, K.J. and Silman, M.R. Land-use and climate change effects on population size and extinction risk of Andean plants. Global Change Biology.

Feeley, K.J. and Silman, M.R, Bush, M., Farfan, W., Garcia Cabrera, K., Malhi, Y., Meir, P., Salinas Revilla, N., Raurau Quisiyupanqui, M.N., Saatchi, S. Migration of Andean trees in response to increasing temperatures. Global Change Biology.

Girardin, C. A. J., ----, **Feeley, K.J.**, et al. Net primary productivity and its allocation along a tropical forest elevational transect in the Peruvian Andes. Global Change Biology.

Maness, T.J., Westbrook, M.A., **Feeley, K.J.**, and Anderson D.J., Offspring sex does not influence duration of post-fledging parental care in the sexually size dimorphic Nazca Booby (*Sula granti*). The Condor.

Peres, C.A., Gardner, T.A., Barlow, J., Zuanon, J., Michalski, F., Lees, A.C., Vieira, I.C., Moreira, F.M.S., and **Feeley, K.J.**, Biodiversity conservation in human-modified Amazonian forest landscapes. Biological Conservation.

POPULAR ARTICLES (non-peer reviewed)

Feeley, K.J. 2009. "The effects of global change on tropical forests" in Encyclopedia of Life Science (K.E. Cullen, ed.). Facts on File Press.

Feeley, K.J. 2009. The effect of CO₂ on tropical forests. *The Tropical Garden*. 64: 42-45.

PRESENTATIONS

Conference Presentations

- * Annual Meeting of the Ecological Society of America (2001-2007)
- * Annual Meeting of the Association of Tropical Biology and Conservation (2002-2005)
- * Student Conference on Conservation Science (2005)

University Seminars

- * Florida International University, Department of Biology Marine Science Program (2009)
- * Zhejiang University China, Department of Biology (2009)
- * Zhejiang University China, Department of Biology (2009)
- * Fundacion Insitituto Botanico de Venezuela (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)
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WORKSHOPS and ADDITIONAL TRAINING

Teaching

- * ESA Workshop on 'Innovative Teaching and Active Learning in the Biological Sciences' (2006)

Statistics

- * SAMSI workshop on Complex Computer Models (Terrestrial Ecology section) (2007)
- * UC Santa Barbara Workshop on Bayesian Hierarchical Modeling (2007)
- * ESA Workshop on 'Modeling Patterns and Dynamics of Species Occurrences' (2006)
- * Duke Summer Institute on 'Uncertainty and Variability in Ecological Inference, Forecasting and Decision Making' (2006)
- * CTFS Workshop on 'Advanced Analytical Techniques in R (Statistics)' (2005)
- * NSF SEEK Early Career Faculty and PostDoctoral Workshop on Ecoinformatics (2006)

GIS and Remote Sensing

- * Harvard Semester course on 'Introduction to GIS' (2007)
 - * Harvard Workshop on 'Remote Sensing Technology and Applications' (2007)
 - * Harvard Workshop on 'Introduction to GIS' (2006)
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SERVICE

Founder and organizer of Harvard Ecology and Environmental Discussion Group (2006-2007)
Judge for Murray F. Buell Student Award (ESA conference) (2006-2007)
Duke University Biology Graduate Program Steering Committee (2002)
Member of the ESA, ATBC, and SCB
Member of the Phi Beta Kappa Honor Society
Reviewer for: over 15 top journals and multiple NSF Grant proposals

LANGUAGES

Native Fluency in English
Fluent in Spanish
Basic Quechua