

EVAN M. REHM, Ph.D.

Post Doctoral Researcher

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Colorado State University
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Warner College of Natural Resources
Fort Collins, CO 80523

Current Position

Post-doctoral Researcher, Colorado State University 2015 - present

Education

Ph.D. Biology (Tropical & montane forest ecology) 2015
Florida International University
Dissertation: *Factors affecting current and future treeline locations and dynamics in the Peruvian Andes*

M.S. Wildlife Management (Wildlife conservation) 2006
SUNY College of Environmental Science and Forestry
Thesis: *Factors affecting marsh bird abundance and species richness of wetland birds in New York*

B.S. Wildlife and Fisheries Science (Wildlife & Fisheries Management) 2003
Penn State University

Research experience

Post Doctoral Researcher 2015-Current
Project: Restoring ecological function to a novel ecosystem in the presence of one of the world's most destructive invasive species
Colorado State University, Ft Collins CO; Work in Saipan, Northern Mariana Islands

Doctoral Candidate 2010-2015
Project: Climate change effects on tropical treeline and cloudforest dynamics
Florida International University, Miami FL; Work in Manu National Park, Peru

Visiting Researcher 2013
Project: Spring patterns of freezing resistance and photosynthesis in *Hedera helix*
University of Basel, Switzerland; Work in Switzerland

Wetland Program Coordinator 2006-2007
Project: Development and application of Delaware's non-regulatory wetland strategy
Delaware Department of Natural Resources and Environmental Control, Dover DE

Avian ecology researcher 2007-2010
Project(s): Conservation and ecology of threatened and endangered bird populations
Various locations including Australia, Northern Mariana Islands, Puerto Rico, and USA

Master's of Science 2004-2006
Project: Secretive marsh bird habitat associations and detection protocol development
State University of New York, Syracuse, NY

Teaching experience

Instructor on Record, Ecology (Upcoming) <i>Colorado State University, Fort Collins CO</i>	Spring 2017
Teaching Assistant, Ecology Lab <i>Florida International University, Miami FL</i>	2010-2015
Volunteer Instructor, Fairchild K-12 Challenge <i>Fairchild Tropical Botanic Gardens, Miami FL</i>	2010-2015
Teaching Assistant, Deserts of Southern Africa <i>State University of New York, Syracuse, NY; course location Namibia and South Africa</i>	2004-2005
Teaching Assistant, Ornithology Lab <i>State University of New York, Syracuse, NY</i>	2004

Undergraduate and Postgraduate Students Mentored

Janelle Chojnacki (Postgraduate) Movement of seed dispersers across ecotones	Current
Mallory Balsat (Postgraduate) Night roosts and home range of native seed dispersers	Current
Christine Pardo (Undergraduate) Soil seed bank of tropical cloud forests and treeline	2013-2015
Jonathan Valdivieso (Undergraduate) Seed predation at and above tropical treeline	2013
Nelson Cahuana (Masters, Peru) Grazing effects on grassland biomass in high elevation puna	2010-2015
Cintia Gutierrez (Masters, Peru) Grazing effects on grassland biomass in high elevation puna	2010-2015
Flor Zamora (Undergraduate, Peru) Grassland biodiversity and ecological dynamics	2010-2012
Adan Quispe (Postgraduate, Peru) Fire ecology and biodiversity in puna grasslands	2010-2015
Fernando Bravo (Undergraduate, Peru) Germination rates of high elevation tropical tree species	2010-2015

Publications (refereed): [17 total: 10 first author, 7 coauthor, +5 in review or prep]

- Beer, K*, **Rehm, E.M.** and Savidge, J. 2016. First record of a passerine bird species, the Ashy Minivet (*Pericrocotus divaricatus*), for Saipan, Commonwealth of the Northern Mariana Islands. *Micronesica* 2016-2: 1-4
- Rehm, E.M.** and Feeley, K.J. 2016a. Seedling transplants reveal species-specific responses of high elevation tropical treeline trees to climate change. *Oecologia* 181:1233-1242
- Rehm, E.M.** and Feeley, K.J. 2016b. Many species risk mountain top extinction long before they reach the top? *Frontiers of Biogeography*. 8(1)
- Rehm, E.M.** and K.J. Feeley. 2015a. Freezing temperatures as a limit to forest recruitment above tropical Andean treelines. *Ecology* 96:1856-1865
- Rehm, E.M.** and K.J. Feeley. 2015b. The inability of tropical cloud forest species to invade grasslands above treeline during climate change: potential explanations and consequences. *Ecography* 38:1167-1175. Editor's Choice.
- Rehm, E.M.**, Olivas, P., Stroud, J., and K.J. Feeley. 2015. Losing your edge: climate change and the conservation value of range-edge populations. *Ecology & Evolution* 5: 4315-4326.
- Feeley, K.J. and **E.M. Rehm**. 2015. The *downward* shift of montane grasslands exemplifies the dual threat of human disturbances to cloud forest biodiversity (Letter). *Proceedings of the National Academy of Science*. 112:E6084.
- Rehm, E.M.**, Lenz, A., Hoch, G., and C. Körner. 2014. Spring patterns of freezing resistance and photosynthesis in *Hedera helix*. *Basic and Applied Ecology* 15: 543-550
- Rehm, E.M.** 2014. Rates of upslope shifts for tropical species depend on life history and dispersal mode (Letter). *Proceedings of the National Academy of Science*. 111:1676.
- Stroud, J.T., **Rehm, E.M.**, Ladd, M. Olivas, P., and K.J. Feeley. 2014. Are we spending our money wisely? Changing trends in conservation research priorities. *Journal for Nature Conservation* 22: 471-473.
- Feeley, K.J, **Rehm, E.M.**, and J. Stroud. 2014. There are many barriers to species' migrations. *Frontiers of Biogeography*. 6:63-66
- Feeley, K.J. and **E.M. Rehm**. 2014. Corridors are meant for connecting (Correspondence). *Nature Climate Change* 4: 405-406
- Rehm, E.M.** and K.J. Feeley. 2013. Forest patches and the upward migration of timberline in the tropical Andes. *Forest Ecology and Management* 305: 204-211.
- Feeley, K.J. and **E.M. Rehm**. 2012 Amazon's vulnerability to climate change heightened by deforestation and man-made dispersal barriers. *Global Change Biology* 18: 1335-1341. Recommended by the Faculty of 1000
- Feeley, K.J., **Rehm, E.M.**, and B. Machovina. 2012. The responses of tropical forest species to global climate change: acclimate, adapt, migrate, or go extinct? *Frontiers of Biogeography* 4(2): 69-84.
- Rehm, E.M.** and G. Bladassarre. 2007. Temporal variation in detection of marsh birds during broadcast of conspecific calls. *Journal of Field Ornithology* 78(1): 56-63.
- Rehm, E.M.** and G. Bladassarre. 2007. The influence of interspersions on marsh bird abundance in New York. *The Wilson Journal of Ornithology* 119(4): 648-654.

In review or in preparation

*** denotes Undergraduate or postgraduate co-author**

- Rehm, E.M.** *In Review*. Factors affecting current and future tropical treeline locations (Dissertation Synopsis). *Frontiers of Biogeography*.
- Rehm, E.M.**, Balsat M.*, Lemoine, N. and Savidge, J. *In Prep*. Home range attributes and nocturnal roost site differences among native island avifauna affect conservation strategies in the presence of invasive species. To be submitted to *Journal of Applied Ecology* in November 2016
- Rehm, E.M.**, Fricke, E., Bender, J., Rogers, H. and Savidge, J. *In Prep*. Seed dispersal distance by avian frugivores reveals important differences in disperser effectiveness at the community scale. To be submitted December 2016.
- Rehm, E.M.**, and Fricke, E., Savidge, J. and Rogers, H. *In Prep*. Quantifying a complete disperser network – costs, benefits and caveats of two common methodologies. To be submitted Fall 2016.
- Rehm, E.M.**, Chojnacki, J.* and Savidge, J. *In Prep*. Variable habitat use by native seed dispersers will strongly affect restoration of degraded areas. To be submitted Spring 2017

Non-refereed Publications

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- Rehm, E.M.** and Feeley, K.J. 2012. Saving the forests in the clouds. *The Tropical Garden*. 72: 28-33
- Rehm, E.M.** and Rothweiler, R. 2008. Delaware Wetlands Conservation Strategy. Delaware Department of Natural Resources and Environmental Control. Dover, Delaware, USA

Research Funding and Awards

2011 Tinker Field Grant – LACC FIU	\$1,160
2011 Kelly Tropical Botany Scholarship – Kelly Foundation	\$290
2011 Exploration Fund Grant – Explorer’s Club	\$1,000
2012 Doctoral Evidence Acquisition Fellowship – FIU	\$16,600
2012 Kelly Tropical Botany Scholarship – Kelly Foundation	\$290
2014 Tinker Field Grant – LACC FIU	\$1,800
2014 Dissertation Year Fellowship – FIU	\$16,600
2014 International Center for Tropical Botany – FIU	\$3,000

Selected presentations and posters

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- Rehm, E.M.** et al. 2016. Determining seed dispersal services by avian frugivores to guide rewilding efforts. Ecological Society of America (Presentation).
- Rehm, E.M.** and Feeley, K.J. 2015. Factors affecting current and future treeline dynamics in the Peruvian Andes Association for Tropical Biology and Conservation. (Presentation)
- Rehm, E.M.** and Feeley, K.J. 2014. Hitting the Grass Ceiling: Recruitment limitation inhibits climate driven shifts of tropical treelines. Ecological Society of America (Presentation)
- Rehm, E.M.** and Feeley, K.J. 2014. The Grass Ceiling: Tropical treelines as a threat to biodiversity. 16th Annual Biology Research Symposium. Florida International University. Best presentation award. (Presentation)

- Rehm, E.M.** and Feeley, K.J. 2013. The Grass Ceiling: recruitment limitation above Andean timberlines. Association for Tropical Biology and Conservation (Presentation)
- Rehm, E.M.** and Feeley, K.J. 2013. The Grass Ceiling: recruitment limitation above timberline may limit tropical montane cloud forest's ability to adapt to global climate change. 6th International Biogeography Society Meeting. (Poster)
- Rehm, E.M.,** Bravo, C. and K.J. Feeley. 2012 (Invited). Ecología, conservación y efectos del cambio climático en el bosque de nubes del Parque Nacional Manu. Lima Natural History Museum. Lima, Peru. (Presentation)
- Rehm, E.M.** and Feeley, K.J.. 2012. Will above-timberline forest patches facilitate the upward migration of Andean montane cloud forests in response to climate change? Ecological Society of America. (Presentation)
- Rehm, E.M.** and G.A. Baldassarre. 2005. Temporal variation in marsh bird detection. The Wildlife Society's 12th Annual Conference. (Poster)
- Rehm, E.M.** and G.A. Baldassarre. 2005. Temporal variation in marsh bird detection. 58th New York State Ornithological Association. (Presentation)
- Feeley K.J. and **Rehm E.M.** 2013. Los efectos sinérgicos de los cambios climáticos y las perturbaciones antropogénicas en los bosques Andinos-Amazónicos. Annual Meeting of the Andes and Biodiversity Research Group. Pisac, Peru. (Presentation)
- Feeley K.J. and **Rehm E.M.** 2013. Amazon's vulnerability to climate change heightened by deforestation and man-made dispersal barriers. Annual Meeting of the Association for Tropical Biology and Conservation. San José, Costa Rica. (Presentation)
- Feeley K.J. and **Rehm E.M.** 2012. Amazon's vulnerability to climate change heightened by deforestation and man-made dispersal barriers. Annual meeting of the Ecological Society of America, Portland, Oregon. (Presentation)

University & Outreach Seminars

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- 2014 Franklin and Marshall College, Biology Department Speaker Series
 2014 Concord University, Guest Lecturer, Biogeography and Environmental Change
 2015 Saipan Southern High School, Invited Speaker, Bird loss on Saipan and Guam
 2016 Poudre High School, Invited speaker, Global change ecology

Reviewer

Plos One Biology
 Forest Ecology and Management
 Wilson Journal of Ornithology
 Global Change Biology
 Wetlands
 Arctic, Antarctic, and Alpine Research
 Alpine Botany
 Mountain Research and Development

Professional Societies

Ecological Society of America
 International Biogeography Society
 Assoc. for Tropical Biology and Cons.

Professional Development

Tropical Biology: An Ecological Approach - Organization for Tropical Studies 2012