

Curriculum Vitae Dr. Bénédicte Bachelot

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ACADEMIC APPOINTMENT

2020 – present Oklahoma State University, Assistant Professor

2017- 2020 Rice University, Huxley fellow

2015-2017 Duke University, Postdoctoral Associate

EDUCATIONAL BACKGROUND

2016-2017 “Preparing Future Faculty” fellow

2015-2017 Duke University, Postdoctoral fellow

2011-2015 Columbia University, PhD program: E3B

2009-2011 Michigan State University, dual Master’s program: Forestry and Ecology (EEBB)

2006-2011 AgroParisTech (formerly Institute National Agronomique Paris-Grignon)
France’s leading post graduate engineering school for agricultural and life sciences. Master in Environmental engineering

2004-2006 Lycée Sainte Genevieve, Versailles. Preparatory classes for the national entrance exams for the selective “Grandes Ecoles” specialized in biology, mathematics, physics and chemistry

PUBLICATIONS

1. **Bachelot B.**, Alonso-Rodríguez A.M., Aldrich-Wolfe L., Cavaleri M.A., Reed S.C., and Wood T.E. (2020). Altered climate leads to positive density-dependent feedbacks in a tropical rainforest. *Global Change Ecology*.
2. Howe-kerr L., **Bachelot B.**, Wright R.M., Kendel C.D.; Bay L.K., and Correa A.M.S. (2020). Symbiont community diversity is more variable in host genets that respond poorly to stress. *Global Change Ecology*.
3. **Bachelot B.**, and C. Lee (2020). Disturbances can promote and hinder coexistence of competitors in on-going partner choice mutualisms. *The American Naturalist*.
4. Hogan J., Hérault B., **Bachelot B.**, Gorel A., Baraloto C., Jounieaux M. (2018). Understanding the recruitment response of juvenile tropical trees to logging intensity using functional traits. *Ecological Applications*.
5. Jie Y., **Bachelot B.**, Zhang C.; Meng L.; Qin J., and Zhao X. (2019). Abiotic niche partitioning and negative density dependence across multiple life stages in a temperate forest in northeastern China. *Journal of Ecology*.

6. **Bachelot B.**, Clark J., Uriarte M., Muscarella R., Forero-Montaña J., Thompson J., McGuire K., and J.K. Zimmerman (2018). Associations among arbuscular mycorrhizal fungi and tropical tree communities change with tree successional status. *Ecology*
7. **Bachelot B.**, and C. Lee (2018). Preferential carbon allocation to arbuscular mycorrhizal fungi along succession and fungal coexistence. *Ecology*
8. Taylor B., Chazdon R., **Bachelot B.**, and D. Menge (2017). Nitrogen-fixing trees inhibit growth of regenerating Costa Rican rainforests. *PNAS*
9. **Bachelot B.**, Uriarte M., McGuire K., Thompson J., and J.K. Zimmerman (2017). Arbuscular mycorrhizal fungal diversity and natural enemies promote coexistence of tropical tree species. *Ecology*
10. **Bachelot B.**, Uriarte M., Zimmerman J.K., Thompson J., Leff J.W., Asiain A., Koshner J., and K. McGuire (2016). Long-lasting effects of land use history on soil fungal communities in secondary tropical rain forests. *Ecological applications*.
11. **Bachelot B.** (2016). Sky: Canopy Openness Analyzer Package. R package version 1.0.<http://CRAN.R-project.org/package=Sky>
12. **Bachelot B.**, Uriarte M., Thompson J., and J.K. Zimmerman (2016). The advantage of living at the extremes: tree seedlings at intermediate abundance suffer greater richness of aboveground enemies and more damage in a tropical forest. *Journal of Ecology*. *Journal of Ecology*, 104:90-103.
13. Lasky, J.R., **Bachelot B.**, Muscarella R., Schwartz N., Forero-Montaña J., Nytch C.J., Swenson N.G., Thompson J., Zimmerman J.K., and M. Uriarte (2015). Ontogenetic shifts in trait-mediated mechanisms of plant community assembly. *Ecology*, 96:2157-2169.
14. **Bachelot B.**, Kobe R.K., and C. Vriesendorp (2015). Negative density-dependent mortality varies over time in a wet tropical forest advantaging rare species, common species, or no species. *Oecologia*, 179:853-861.
15. **Bachelot B.**, Uriarte M., and K. McGuire. (2015). Interactions among mutualism, competition, and predation foster species coexistence in diverse communities. *Theoretical Ecology*, 8:297-312.
16. **Bachelot B.**, and R.K. Kobe (2013). Rare species advantage? Richness of damage types due to natural enemies increases with species abundance in a wet tropical forest. *Journal of Ecology*, 101:846-856.
17. Herault B., **Bachelot B.**, Poorter L., Rossi V., Bongers F., Chave J., Paine C.E.T., Wagner F., and C. Baraloto (2011). Functional traits predict ontogenetic growth trajectories among neotropical trees. *Journal of Ecology*, 99:1431-1440.

PROFESSIONAL EXPERIENCE

Fall 2019 Instructor for two undergraduate courses: Insect Biology Lab Module, and Insect Biology

Fall 2018 Instructor for two undergraduate courses: Insect Biology Lab Module, and Insect Biology

Fall 2017 Instructor for two undergraduate courses: Ecology Lab Module, and Insect Biology

Fall 2016 “Preparing Future Faculty” fellow

Fall 2014 Teaching certificate track

Sep-Dec 2014 Lab instructor for Dr. Duncan Menge in Theoretical Ecology

Jan-May 2014 Lab instructor for Dr. Paul Olsen, Dr. Matt Palmer, and Dr. Kevin Griffin in Environmental Biology II

Sep-Dec 2012 Lab instructor for Dr. Maria Uriarte in Statistical Modeling

Feb-March 2010 Completed the graduate course “Tropical biology: an ecological approach” through Organization for Tropical Studies (OTS)

Jan-July 2009 Completed a 6-month internship with the CIRAD in French Guiana studying the growth of tropical trees: Ontogenic and competition traits-based models

June-Nov 2008 Completed a 6-month internship at the US Forest Service (3 months at Hubbard Brook Experimental Forest and 3 at Forest Service Office in Burlington, VT). Investigating the effects of increased soil nitrogen concentration on the roots of sugar maple; also, the role of herbs in the nitrogen cycle and changes in nitrogen and N15 concentrations in beech and sugar maple seedlings

August 2007 Worked as a researcher in genetic epidemiology at the INSERM, Paris
Created models to estimate model parameters

GRANTS, FELLOWSHIPS and HONORS

2019 NSH:DEB (proposal in prep - lead PI)

2019 NSH:CNH2 (proposal submitted- co PI)

2013 Second place at the MCED young modeler award

2013 Sigma Xi Grants-in-Aid of research (\$900)

2013 Institute of Latin American Studies, summer field research grant (\$1,100)

2012 Institute of Latin American Studies, summer field research grant (\$1,480)

2012 E3B, Pre-Dissertation research travel grant (\$2,500)

2011 OTS research fellowship (\$1,890)

2011 Graduate school of Art and Sciences Faculty fellowship, Columbia University, 4 years (~ 267,000\$)

2010 Honorary Member, Phi Beta Delta Honor Society for International Scholars

2010 Organization for Tropical Studies post course grant (1,000\$)

2009 Second place at Michigan State University international essay contest

MEETINGS and TALKS

March 2020: University of Massachusetts Boston, Special seminar series

March 2020: North Carolina State University, Special seminar series

March 2020: Oklahoma State University, Special seminar series

March 2020: University of Arizona, Special seminar series

February 2020: University of California in Los Angeles, Special seminar series
December 2019: University of Massachusetts Lowell, Special seminar series
December 2019: Nebraska University, Species seminar series
May 2019: Yosemite Symbiosis Workshop
February 2019: Princeton University, Special seminar series
March 2018: University of Georgia, Special seminar series
February 2018: University of Wyoming, Special seminar series
February 2017: Cornell University, Special seminar
January 2017: Washington State University, Spring 2017 seminar series
September 2016: Rice University, Vanzant Lecture series
June 2016: ATBC meeting
February 2016: Invited seminar at University of North Carolina, Ecology Seminar
November 2015: Invited seminar at Swarthmore College, Biology Department
September 2015: Invited seminar in Population Biology at Duke University
October 2014: Two guest lectures about the Lotka-Volterra competition model in Theoretical Ecology taught by Dr. Duncan Menge at Columbia University
August 2014: ESA meeting
September 2011: E3B research seminar at Columbia University
25th March 2011: Graduate Academic Conference at Michigan State University
August 2010: ESA meeting
10th August 2009: Weekly research seminar at UMR Ecofog (Kourou, French Guiana)
19th June 2008: 1st Annual Undergraduate research and Outreach conference at Hubbard Brook Experimental Forest

SERVICES

Reviewer The American Naturalist, Journal of Theoretical Biology, PLOS One, Ecology, Oecologia, Axios, Austral Ecology, Biotropica, Functional Ecology, Plant Ecology and Diversity

LANGUAGES AND OTHER SKILLS

French Native speaker
English Fluent in written and spoken language
Spanish Moderate writing and speaking ability
Computer skills R, Mathematica, Matlab, PHP, language C, SAS, LaTeX