

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.**, et al. Effects of climate variability on species growth rates across North America (*in prep*).
2. Alonso-Rodríguez A.M., **et al.** Understory plant communities show resistance to extreme events and experimental warming in a tropical rainforest (*revision*). *Frontiers in Forest and Global Change*. (*Student paper)
3. Liu, J., **et al.** Predicting the responses of subalpine forest landscape dynamics to climate change on the southeastern Tibetan Plateau (*in press*). *Global Change Biology*.
4. Villellas J., **et al.** Observational data predicts genetic differentiation in reproductive but not vegetative traits in a widespread short-lived plant (*in press*). *Ecology Letters*.
5. **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*. (*Highlighted in Project Biodiversify)

6. 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*.
7. **Bachelot B.**, and C. Lee (2020). Disturbances can promote and hinder coexistence of competitors in on-going partner choice mutualisms. *The American Naturalist*.
8. 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*.
9. 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*.^[1]_[SEP]
10. **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*
11. **Bachelot B.**, and C. Lee (2018). Preferential carbon allocation to arbuscular mycorrhizal fungi along succession and fungal coexistence. *Ecology*, 99:607-620.
12. Taylor B., Chazdon R., **Bachelot B.**, and D. Menge (2017). Nitrogen-fixing trees inhibit growth of regenerating Costa Rican rainforests. *PNAS*
13. **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*, 93:712-720.
14. **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*.
15. **Bachelot B.** (2016). Sky: Canopy Openness Analyzer Package. R package version 1.0.<http://CRAN.R-project.org/package=Sky>
16. **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.
17. Lasky, J.R., **Bachelot B.**, Muscarella R., Schwartz N., Forero-Montaña J., Nyctch 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.
18. **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.

19. **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.
20. **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.
21. 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 2020	Instructor for General Ecology
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

2021	STF: Student Tech Fee to improve teaching (\$86,000)
2021	ASR: Summer Salary
2021	Travel award
2021	NSF:DEB (funded- lead PI - \$335,000)
2021	NSF:MRI (submitted, Senior personnel - \$500,00)
2020	NASA:NIP (funded, Senior personnel)

2020 NSF:EAGER (funded \$200,000, co PI)
2019 NSF:CNH2 (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

August 2021: ESA meeting
December 2020: Festival of Ecology conference, British Ecological Society
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

Associate Editor. Journal of Tropical Ecology
Judge OSSEF
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