

## Bianca Lopez

National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD 21401  
[blopez@sesync.org](mailto:blopez@sesync.org)

### Education

- 2017      PhD, University of North Carolina at Chapel Hill, Chapel Hill, NC  
            “The effects of urbanization on riparian forest plant communities in the  
            Research Triangle area of North Carolina” (Peter S. White, advisor).
- 2008      B.S., Ecology and Evolutionary Biology, University of Connecticut,  
            Storrs, CT.

### Professional experience

- 2017 –      Postdoctoral Fellow. National Socio-Environmental Synthesis Center,  
            Annapolis, MD.
- 2010 – 2017    Teaching Assistant. University of North Carolina at Chapel Hill, Chapel  
            Hill, NC.
- 2010      Field Technician. Luquillo LTER, Rio Grande, Puerto Rico. Supervisors:  
            Chris Nytch, Jess Zimmerman.
- 2009      Fieldwork Coordinator in Western Cape, South Africa. University of  
            Connecticut, Storrs, CT. Supervisors: John Silander, Tony Rebelo.

### Research interests

Plant community ecology, urban ecology, biodiversity conservation, ecosystem services, human-environment interactions, seed dispersal, plant functional traits.

### Publications

- Lopez, B.E.**, K.R. Burgio, M.C. Carlucci, K.A. Palmquist, A. Parada, V.P. Weinberger, and A.H. Hurlbert. 2016. A new framework for inferring community assembly processes using phylogenetic information, relevant traits and environmental gradients. *One Ecosystem*. 1: e9501.
- Coyle, J.R., F. Halliday, **B.E. Lopez**, K.A. Palmquist, P.A. Wilfahrt, and A.H. Hurlbert. 2014. Using trait and phylogenetic diversity to evaluate the generality of the stress dominance hypothesis in eastern North American tree communities. *Ecography*. 37: 1-13.

#### *Non-refereed:*

Bell, G.W., B.S. Evans, and **B.E. Lopez**. 2011. *Environmental Science Lab Manual*. First Edition. Kendall Hunt Publishing Company, Dubuque, IA.

#### *In review:*

**Lopez, B.E.**, D. Urban, and P.S. White. Nativity and seed dispersal mode influence species' responses to habitat connectivity and urban environments. In review at *Global Ecology and Biogeography*.

*In preparation (draft available upon request):*

**Lopez, B.E.** The four filters of urbanization and their effects on forest plant taxonomic, functional, and phylogenetic diversity.

**Lopez, B.E.** Using plant traits to examine the opportunities and limitations of riparian forest restoration in urban areas.

#### Fellowships and honors

2017	Socio-Environmental Immersion Postdoctoral Fellowship
2017	Graduate Education Advancement Board Impact Award for research that directly impacts citizens of North Carolina
2017	UNC Future Faculty Fellowship
2016	Dr. W.C. Coker Fellowship in Botany
2011 – 2016	Alma Holland Beers Scholarship
2015	UNC Dissertation Completion Fellowship
2015	Finalist, 3 Minute Thesis Competition, UNC
2015	Winner, Rapid Research Talk Competition, Southeastern Ecology and Evolution Conference, Athens, GA
2014	Gwendolyn Burton Caldwell Graduate Scholarship
2013	UNC Graduate Student Mentor Award

#### Research grants

2014	Summer Research Grant, UNC Center for the Study of the American South
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#### Teaching experience

University of North Carolina at Chapel Hill

Spring 2017	Teaching Assistant	Conservation Biology
2014 – 2015	Teaching Assistant	Agriculture and the Environment
2013 – 2014	Teaching Assistant	Human Rights and Water Resource Management
2012 – 2013	Teaching Assistant	Local Flora
Fall 2011	Guest Lecturer	Ecological Analysis and Application
2010 – 2012	Teaching Assistant	Introduction to Environmental Science

#### Selected presentations

Lopez, B.E. Four filters of urbanization and their effects on forest plant taxonomic, functional, and phylogenetic diversity. Ecological Society of America Annual Meeting, Portland, OR. Aug., 2017.

Lopez, B.E., D. Urban, and P.S. White. Habitat connectivity and dispersal limitation in an urban landscape. Ecological Society of America Annual Meeting, Fort Lauderdale, FL. Aug., 2016.

Lopez, B.E., P.S. White, and D. Urban. Drivers of plant composition in an urban landscape: Which variables matter most? Ecological Society of America Annual Meeting, Baltimore, MD. Aug., 2015.

- Lopez, B.E. Know your backyard: Urbanization and its effects on plant communities. Southeastern Ecology and Evolution Conference, Athens, GA. Mar., 2015.
- Lopez, B.E. Temperature and dispersal play a role in plant community composition along an urban-to-rural gradient. Ecological Society of America Annual Meeting, Minneapolis, MN. Aug., 2013.
- Lopez, B.E., P.S. White, and D. Urban. Effects of urban environments on riparian plant communities in the North Carolina Piedmont. (Poster) Student Conference for Conservation Science, New York, NY. Oct., 2012.
- Lopez, B.E., K.R. Burgio, M.C. Carlucci, K.A. Palmquist, A. Parada, V.P. Weinberger, and A.H. Hurlbert. A novel conceptual framework for using functional and phylogenetic diversity to identify community assembly processes along environmental gradients. Ecological Society of America Annual Meeting, Portland, OR. Aug., 2012.

#### Mentoring experience

- Fall, 2016 Graduate Research Consultant for Global Biodiversity and Macroecology class. Advised students on research projects using ecological datasets.
- 2015, 2017 SEEDS Mentor at Ecological Society of America Annual Meeting.
- Fall, 2015 Graduate Research Consultant for Restoration Ecology class. Mentored 4 students in design, data collection, and analysis of research project.
- Fall, 2014 Graduate Student Mentor for Environmental Capstone class of 8 students, UNC. Students produced a food waste management plan for Chapel Hill.
- Summer, 2013 Mentored Cheryl Lim, undergraduate student from National University of Singapore, on summer research project.
- Summer, 2013 Mentored Jackclyn Ngo, undergraduate student from UNC Howard Hughes Medical Institute Future Teachers internship program.

#### Professional affiliations and activities

*Memberships:* Ecological Society of America

*Journal reviews:* Journal of Vegetation Science, Ecology and Evolution

*Academic service:*

- 2017 Co-presenter, workshop on Improving Academic Culture, Ecological Society of America Annual Meeting, Portland, OR
- 2015 – 2016 Chair, Curriculum for the Environment and Ecology seminar series, UNC
- 2015 Co-organizer, Structural Equation Modeling workshop at UNC
- 2014 – 2017 Committee Member, Curriculum for the Environment and Ecology Student Research Symposium, UNC
- 2011 – 2015 Committee Member, Curriculum for the Environment and Ecology seminar series, UNC

#### Volunteer experience

- 2015 – 2016 Botanical expert at two Bioblitz events in North Carolina.

### Outreach activities

- 2016 Co-wrote a lesson plan about seed dispersal for 3<sup>rd</sup>-5<sup>th</sup> grade teachers.
- 2013 Participated in Pen Pal program, discussing science research with middle school students at a local school via weekly journal entries.
- 2012 Co-created the Life as Art public art show at the North Carolina Botanical Garden, which featured research-focused art by scientists.