

# Julia Pilowsky

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## Education

- 2018– **PhD Ecology**, *University of Copenhagen, University of Adelaide*, Copenhagen, DK; Adelaide, AU.  
Thesis Process-Explicit Models of Large Herbivore Range Dynamics in North America
- 2013–2017 **MS Biology**, *Tufts University*, Medford, MA, USA.  
Thesis The Behavioral Ecology of a Wasp Invasion
- 2008–2012 **BA Ecology**, *Columbia University*, New York, NY, USA.  
Thesis Social Context and Song Ornamentation in an Avian Cooperative Breeder

## Publications

- J. A. Pilowsky and J. P. Dahlgren. Incorporating the temporal autocorrelation of demographic rates into structured population models. *Oikos*, 129(2):238–248, 2019.
- J. A. Pilowsky and P. T. Starks. Displacement and replacement in real time: *Polistes dominula*'s impact on *P. fuscatus* in the northeastern U.S. *Biological Invasions*, 20(5):1161–1169, 2018.
- S. Keen, C. D. Meliza, J. Pilowsky, and D. R. Rubenstein. Song in a social and sexual context: vocalizations signal identity and rank in both sexes of a cooperative breeder. *Frontiers in Ecology and Evolution*, 4:46, 2016.
- N. Wilson-Rich, J. A. Pilowsky, B. Foo, T. Tien, F. Hester, and P. T. Starks. A test of the haploid susceptibility hypothesis using a species with naturally occurring variation in ploidy. *Insectes sociaux*, 61(2):163–169, 2014.
- J. A. Pilowsky and D. R. Rubenstein. Social context and the lack of sexual dimorphism in song in an avian cooperative breeder. *Animal behaviour*, 85(4):709–714, 2013.

## Research Experience

- 2017–2018 **EDSD Fellow**, *Johan Dahlgren, Southern Denmark University*, Odense, Denmark.  
Developing the colorednoise package for simulating populations with temporal autocorrelation.
- 2013–2017 **Master's Thesis Research**, *Philip Starks, Tufts University*, Medford, MA.  
Studies on the biogeography, demography, and behavior of the European paper wasp and its native competitors.
- 2016 **Research Technician**, *Avery Cohn, Tufts University*, Medford, MA.  
Collected, processed, and visualized data on coffee production and climate in the Neotropics.
- 2012 **Research Intern**, *Reed Bowman, Archbold Biological Station*, Lake Placid, FL.  
Study on the effect of habitat fragmentation on spatial kin structure in the Florida scrub jay.

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- 2010–2012 **Undergraduate Thesis Research**, *Dustin Rubenstein, Columbia University, New York, NY.*  
Study on social selection and song structure in the cooperatively breeding superb starling.

## Awards

- 2017 **Tufts Graduate Research Symposium**, *Second place winner.*  
2014 **Insectes Sociaux**, *Paper of the Year Award.*  
2014 **Tufts Graduate Research Competition**, *Winner.*  
2013 **National Science Foundations**, *Graduate Research Fellowship.*  
2012 **Animal Behavior Society**, *Charles H. Turner Award.*

## Computer skills

Languages R, Python, C++                      Technologies ArcGIS, L<sup>A</sup>T<sub>E</sub>X, Git  
Web Ruby, HTML, CSS

## Teaching Experience

- 2016 **Study Group Leader**, *Osher Institute, Tufts University, Medford, MA.*  
Created curricula with lectures, discussion, and activities for two classes on evolution for senior citizens. Taught curricula as month long courses for 30 senior students each year.  
2014–2015 **Graduate Instructor**, *Tufts University, Medford, MA.*  
Developed a new lab curriculum to complement a lecture course on biostatistics. Taught the lab course I developed for a class of 25 graduate and undergraduate students.

## Presentations

- 2017 **Ecological Society of America**, *Portland, OR.*  
15 minute presentation. "The ecology of cooperation in Polistes wasps."  
2013 **Integrated Behavioral Research Group**, *Princeton, NJ.*  
30 minute presentation. "Spectral analysis of song in a cooperatively breeding starling."

## Languages

English Native fluency  
Spanish Native fluency  
French Proficient