

# Hannah Correia

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## EDUCATION

### AUBURN UNIVERSITY

PHD IN BIOLOGY  
Expected July 2019 | Auburn,  
Alabama, USA

MS IN STATISTICS  
August 2016 | Auburn, Alabama, USA

### HUNTINGDON COLLEGE

BA IN MATHEMATICS AND BIOLOGY  
May 2011 | Montgomery, Alabama,  
USA

## GRANTS, AWARDS, & HONORS

- ESA Katherine S. McCarter Graduate Student Policy Award | 2019
- NSF GRFP Fellowship | 2015-19
- DoD SMART Scholarship | 2015 (declined)
- NSF GROW Additional Funding | 2017-18
- AU COSAM Travel Grant | Fall 2018

## COURSEWORK

### GRADUATE

Quantitative Methods for Biological Data  
Longitudinal Data Analysis  
Applied Multivariate Statistical Analysis  
Statistical Theory & Methods  
Experimental Statistics

## SKILLS

### PROGRAMMING

Proficient:  
R •  $\text{\LaTeX}$  • CSS • HTML  
Familiar:  
Shell • Python • Fortran • C++  
• Sage • SAS

## CONFERENCES & WORKSHOPS

### 2018

- 2018 Joint Statistical Meetings
- 2018 ESA Annual Meeting

### 2017

- 2017 SAMSA Annual Conference
- 2017 Joint Statistical Meetings

### 2016

- Workshop on Infusing Data-Enabled Active Learning in Mathematics and Statistics Courses
- 2016 Ecological Society of America Annual Meeting
- 2016 Joint Statistical Meetings

### 2015

- Workshop on Infusing Data-Enabled Active Learning in Mathematics and Statistics Courses

## RESEARCH

### AUBURN UNIVERSITY DEPT. OF BIOLOGICAL SCIENCES

| NSF GRADUATE RESEARCH FELLOW  
May 2015 – Present | Auburn, Alabama, USA  
Working with **Prof F. Stephen Dobson** to develop statistical methods for ecological data. Improving and applying complex statistical techniques to fisheries data to explain interactions and quantify trends in fish population dynamics.

### NORWEGIAN INSTITUTE FOR NATURE RESEARCH

| VISITING GRADUATE RESEARCH FELLOW  
August 2017 – February 2018 | Tromsø, Norway  
Conducting original research on the effects of climate change on semi-domesticated reindeer in Norway.

### MASAMU ADVANCED STUDY INSTITUTE (MASI) AND WORKSHOPS IN MATHEMATICAL SCIENCES

| GRADUATE RESEARCHER  
November 17 – 26, 2017 | Arusha, Tanzania  
November 21 – 29, 2015 | Windhoek, Namibia  
November 22 – 30, 2014 | Victoria Falls, Zimbabwe  
Worked with four members of the Auburn University Department of Mathematics and Statistics to further the development of statistics in southern Africa.

## EXPERIENCE

### AUBURN UNIVERSITY | GRADUATE TEACHING ASSISTANT

August 2013 – May 2015 | May 2018 – present | Auburn, Alabama, USA  
Lead and support two Ecology labs each semester, teaching students the application of scientific method, experimental design, and statistical methods to answer ecological questions.  
Graded for three mathematics courses, each over 90 students.

## PUBLICATIONS

Sun, W., Bindele, H. F., Abebe, A., **Correia, H. E.** (2019) General local rank estimation for single-index varying coefficient models. *Journal of Statistical Planning and Inference*. 202(September 2019):57–79.

**Correia H. E.** (2018) Spatiotemporally explicit model averaging for forecasting of Alaskan groundfish catch. *Ecology & Evolution*. 8(24):12308–12321.

Dobson, F. S., Abebe, A., **Correia, H. E.**, Kasumo, C., Zinner, B. (2018) Multiple paternity and number of offspring in mammals. *Proc. R. Soc. Lon. B*. 285(1891).

Submitted:  
Abebe, A., **Correia, H. E.**, Dobson, F. S. (2019) Estimating a key parameter of mammalian mating systems: The chance of siring success for a mated male. *BioEssays*.

**Correia, H. E.**, Abebe, A., Avise, J., , Dobson, F. S. (2019) Multiple paternity and number of offspring in viviparous vertebrates. *Molecular Ecology*.

**Correia, H. E.**, Abebe, A. (2019) Regularized Rank Quasi-likelihood Estimation for Generalized Additive Models.

## PRESENTATIONS

### SAMSA 2018

November 21, 2018 | Palapye, Botswana  
“Rank-based estimation for generalized additive models.”

### ESA 2018 CONTRIBUTED TALK

August 8, 2018 | New Orleans, Louisiana, USA  
“Decomposed spatial and temporal effects of plant productivity and herd condition on juvenile body mass of a sub-Arctic herbivore.”

### JSM 2018 CONTRIBUTED PAPER

July 31, 2018 | Vancouver, British Columbia, Canada  
“Spatio-temporally explicit model averaging for forecasting of Alaskan groundfish catch.”

### SAMSA 2017

November 21, 2017 | Arusha, Tanzania  
“Spatio-temporally explicit model averaging for forecasting.”