

# ARIELLA GLADSTEIN, PH.D.

aglad@med.unc.edu ◇ github.com/agladstein

**Expertise:** *Human population genetics, genomics, computational biology, bioinformatics, statistics*

## EDUCATION

---

**University of Arizona, Tucson, AZ**  
PhD in Ecology and Evolutionary Biology  
Minor in Mathematics

*August 2018*

**Beloit College, Beloit, WI**  
B.S. in Mathematical Biology & Russian, Cum Laude  
Departmental Honors: Mathematical Biology

*May 2011*

## RESEARCH EXPERIENCE

---

### Postdoctoral Fellowship

2018 - present

*Schrider Lab*

*Department of Genetics, University of North Carolina, Chapel Hill*

Project: Inference of demographic history with deep learning

### Dissertation Research

2011 - 2018

*Hammer Lab*

*Ecology and Evolutionary Biology, University of Arizona*

Dissertation: Inference of recent demographic history of population isolates using genome-wide high density SNP arrays and whole genome sequences

## TEACHING EXPERIENCE

---

### ECOL 320 Genetics

Fall 2014, 2015, 2016

*Graduate Teaching Assistant*

*University of Arizona*

### ECOL 182L Intro to Ecology and Evolutionary Biology Lab

Spring 2015

*Graduate Teaching Assistant*

*University of Arizona*

### BIOL 247 Biometrics

Spring 2011

*Teaching Assistant*

*Beloit College*

## SELECTED PUBLICATIONS

---

Adrion, J. R.\*, Cole, C. B.\*, Dukler, N.\*, Galloway, J. G.\*, **Gladstein, A. L.\***, Gower, G.\*, Kyriazis, C.C.\*, Ragsdale, A.P.\*, Tsambos, G.\*, ..., Gravel, S., Gutenkunst, R.N., Lohmeuller, K.E., Ralph, P.L., Schrider, D.R., Siepel, A., Kelleher, J., Kern, A.D. 2019. A community-maintained standard library of population genetic models. *bioRxiv*. doi: <https://doi.org/10.1101/2019.12.20.885129>

**Gladstein A.L.\*** and Hammer M.F. 2019. Substructured population growth in the Ashkenazi Jews inferred with Approximate Bayesian Computation. *Molecular Biology and Evolution*. 36(6): 1162-1171. doi: <https://dx.doi.org/10.1093/molbev/msz047>

**Gladstein A.L.\*** et al. 2018. SimPrily: A Python framework to simplify high-throughput genomic simulations. *SoftwareX*, 7, 335-340. <https://doi.org/10.1016/j.softx.2018.09.003>

**Gladstein A.\*** and Hammer M.F. 2016. Population Genetics of the Ashkenazim. In: *eLS*. John Wiley & Sons, Ltd: Chichester. pp. 1-8. <https://doi.org/10.1002/9780470015902.a0020818.pub2>

Full bibliography: <https://www.ncbi.nlm.nih.gov/myncbi/ariella.gladstein.1/bibliography/public/>

---

\*First author

## SELECTED POSTERS AND PRESENTATIONS

---

**Gladstein A.L.<sup>†</sup>**, Schrider R.D. Demographic model selection with deep learning. Probabilistic Modeling in Genomics. 2019. Aussois, France.

**Gladstein A.L.<sup>†</sup>**, Hammer M.F. Substructured population growth in the Ashkenazi Jews inferred with Approximate Bayesian Computation. UNC Women in Computing Research Symposium. 2019. Chapel Hill, NC.

**Gladstein A.L.<sup>†</sup>**, Hammer M.F. Substructured population growth in the Ashkenazi Jews inferred with Approximate Bayesian Computation. Probabilistic Modeling in Genomics. 2018. Cold Spring Harbor, NY.

**Gladstein A.L.<sup>†</sup>** Inference of evolutionary history with Approximate Bayesian Computation. Open Science Grid All-Hands Meeting. 2018. Salt Lake City, Utah.

**Gladstein A.L.<sup>†</sup>**, et al. Efficient pipeline for whole genome simulation and summary statistic calculation with flexible demographic models. Meeting of the American Society for Human Genetics. 2017. Orlando, FL.

## AWARDS

---

XSEDE Startup and Supplemental allocation (500,000 CPU hrs, 6,500 GPU hrs, 5.5 Tb)	<i>2017-2020</i>
NIH Computational and Mathematical Modeling of Biological Systems Trainee (\$71,064)	<i>2013-2014</i>
NSF Integrative Graduate Education and Research Traineeship in Genomics (\$97,083)	<i>2011-2013</i>
Society for Learning Unlimited Grant (\$2,000)	<i>2009</i>
Beloit College Presidential Scholar (\$60,000)	<i>2007-2011</i>

## WORKSHOPS AND HACKATHONS

---

SMBE satellite meeting on Speciation Genomics, Tjarno, Sweden (3 days)	<i>06/2019</i>
NCBI RNA-Seq in the Cloud hackathon, Chapel Hill, NC (3 days)	<i>03/2019</i>
Cyber Carpentry, Chapel Hill, NC (2 weeks)	<i>06/2018</i>
XSEDE HPC Workshop: Big Data, Tucson, AZ (2 days)	<i>02/2018</i>
Open Science Grid User School, Madison, WI (1 week)	<i>07/2017</i>

## COMMUNITY SERVICE AND OUTREACH

---

### **Mentoring**

Undergraduate interns in computer science, Tucson, AZ	<i>2017</i>
---	-------------

### **Teaching in community**

Cyber Carpentry workshop, Chapel Hill, NC	<i>2019</i>
Research Bazaar workshop on R, Tucson, AZ	<i>2018</i>
CyVerse Container Camp, Tucson, AZ	<i>2018</i>
Software Carpentry on Unix/Bash, Python, and Git, Tucson, AZ	<i>2017</i>
Tucson Womens Hackathon workshop on Git, Tucson, AZ	<i>2017</i>
Population Genetics Module at the Kino School, Tucson, AZ	<i>2013</i>

### **Judge**

Graduate & Professional Student Council Travel Grants, Tucson, AZ	<i>2012, 2016, 2017, 2018</i>
Tucson Magnet High School Science Fair, Tucson, AZ	<i>2012, 2015</i>
EEB Undergraduate Research Poster Session, Tucson, AZ	<i>2012</i>

---

<sup>†</sup>Presenter