# Marc A. Beer

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#### **EDUCATION**

Ph.D., Biology 2019—Present

Washington State University GPA: 4.00/4.00

**B.S., Biology** 2015—2019

University of Iowa

Minor: Environmental Science

University Honors, Honors in Major, Phi Beta Kappa, with highest distinction

GPA: 4.19/4.00

# FELLOWSHIPSTOTAL: \$148,500.00

Washington State University - \$8,000.00

National Science Foundation Graduate Research Fellowship	2020—Present
\$138,000	

Philip H. Abelson Graduate Fellowship 2019—2021

Iowa Center for Research by Undergraduates Summer Fellowship

2017

University of Iowa - \$2,500.00

#### AWARDS and HONORS

Univ. of Iowa Honors Award for Outstanding Academic Achievement	2019
Phi Beta Kappa Society	Inducted 2018
Univ. of Iowa President's List	Seven semesters, 2016—2019
Univ. of Iowa Dean's List	Eight semesters, 2015—2019
Univ. of Iowa Tuition Scholarship	2016—2019
Univ. of Iowa Old Gold Scholarship	2015—2019
Univ. of Iowa National Scholars Award	2015—2019
Bill and John Fenton Scholarship	2018
Lowden Prize in Biology	2018
Rhodes Dunlap Second and Third Year Awards	2017—2018
Myrna Lee Sprengeler Memorial Scholarship	2017
Univ. of Iowa Classics Departmental Latin Award	2017
Ralph K. and Maxine J. Hibbs Scholarship	2016

#### RESEARCH EXPERIENCE

## School of Biological Sciences, Washington State University

Doctoral Research, Advisor: Dr. Andrew Storfer

- Population genomics of the Tasmanian devil (Sarchophilus harrisii)
- Landscape genomics of the streamside salamander (Ambystoma barbouri)

2019—Present

 Leveraged geographic information systems (GIS) data and reduced representation sequencing data to test for genetic-environment associations and identify candidate genes underlying local adaptation.

#### Department of Biology, University of Iowa

2017-2019

Undergraduate Honors Research, Advisor: Dr. Andrew Forbes

- Investigation of reproductive trait evolution in fly genus Strauzia
  - Quantified trait values for sexually dimorphic characters
  - Compared patterns of trait divergence among host-sharing species and non-host-sharing species
- Investigation of the thermal melanism hypothesis in three temporally isolated Strauzia species
  - Quantified thermal properties of differentially pigmented Strauzia species
  - Tested for differences in fitness proxies at cold temperatures among differentially pigmented Strauzia species

#### **TEACHING EXPERIENCE**

#### General Biology (BIO 102), Teaching Assistant

2020

School of Biological Sciences, Washington State University

- Taught 36 students per semester
- Led laboratory experiments

## General Ecology (BIO 372), Teaching Assistant

2019

School of Biological Sciences, Washington State University

- Taught 36 students per semester
- Led laboratory and field experiments

#### **PUBLICATIONS**

Hippee, A.C., **Beer, M.A**., Bagley, R.K., Condon, M.A., Lisowski, E.A., Norrbom, A.L., and A.A. Forbes. Host shifting and host sharing in a genus of specialist flies diversifying alongside their sunflower hosts. *In review*, Journal of Evolutionary Biology.

Forbes, A.A., Bagley, R.K., **Beer, M.A**., Hippee, A.C., and H.A. Widmayer. 2018. Quantifying the unquantifiable: why Hymenoptera - not Coleoptera - is the most speciose animal order. BMC Ecology 18:21.

#### **BOOK CHAPTERS**

Storfer, A., Kozakiewicz, C.P., **Beer, M.A.**, and A.E. Savage. 2020. Applications of population genomics for understanding and mitigating wildlife disease. In Population Genomics: Wildlife (P. Hohenlohe and O.P. Rajora, eds.).

# **PRESENTATIONS**

- \*Hippee, A.C., **Beer, M.A**., Bagley, R.K., Condon, M.A., Lisowski, E.A., Norrbom, A.L., and A.A. Forbes. 01/2020. The phylogeny of genus *Strauzia* (Diptera: Tephritidae) reveals histories of host shifting, including repeated shifts onto the same plant hosts. Plant and Animal Genome Conference. San Diego, CA. Talk.
- \*Hippee, A.C., **Beer, M.A**., Bagley, R.K., Condon, M.A., Lisowski, E.A., Norrbom, A.L., and A.A. Forbes. 06/2019. The phylogeny of genus *Strauzia* (Diptera: Tephritidae) reveals histories of host shifting, including repeated shifts onto the same plant hosts. Evolution 2019. Providence, RI. Talk.

<sup>\*</sup> Presenting researcher

- \*Beer, M.A., Hipee, A.C., and A.A. Forbes. 05/2019. Evolution of sexual traits in congeneric insects sharing a host plant. Biology Honors Colloquium. University of Iowa, Iowa City, IA. Talk.
- \*Hippee, A.C., **Beer, M.A**., Bagley, R.K., and A.A. Forbes. 04/2019. The phylogeny of genus *Strauzia* (Diptera: Tephritidae) reveals histories of host shifting, including repeated shifts onto the same plant hosts. DSHB Symposium on Biological Sciences. Davenport, IA. Poster.
- \*Beer, M.A., Hippee, A.C., and A.A. Forbes. 2018. Adaptive consequences of color variation among recently diverged varieties of a specialist insect. Iowa Center for Research by Undergraduates 14<sup>th</sup> Annual Spring Undergraduate Research Festival. University of Iowa, Iowa City, IA. Poster.
- \*Hippee, A.C., **Beer, M.A**., and A.A. Forbes. 04/2017. Evolution of adaptive coloration among recently diverged varieties of a specialist insect. DSHB Symposium on Biological Sciences. Davenport, IA. Poster.

### **SERVICE and OUTREACH**

Palouse Discovery Science Center, Pullman, WA	2019—Present
•	2019—Present
<ul> <li>Designed and led scientific enrichment activities for children ages 3-13yrs</li> </ul>	
Invited research talk, Undergraduate Research Club, Washington State University	2020
<ul> <li>Presented doctoral research to promote interest in scientific research</li> </ul>	
Univ. of Iowa Biological Interests Organization Volunteer	2015—2019
Fermilab Ecological Restoration Volunteer	2017—2018
Univ. of Iowa Student Garden Volunteer	2015—2016
PROFESSIONAL MEMBERSHIP	
American Society of Naturalists	2020—Present
Society for the Study of Evolution	2018—2019