# Marc A. Beer

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EDUCATION Updated 09/2020

2019—Present Ph.D., Biology

Washington State University

GPA: 4.00/4.00

2015—2019 B.S., Biology

University of Iowa

Minor: Environmental Science

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

GPA: 4.19/4.00

FELLOWSHIPS TOTAL: \$148,500.00

2020—Present National Science Foundation Graduate Research Fellowship

\$138,000

2019—2021 Philip H. Abelson Graduate Fellowship

Washington State University - \$8,000.00

2017 Iowa Center for Research by Undergraduates Summer Fellowship

University of Iowa - \$2,500.00

## **AWARDS and HONORS**

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

## RESEARCH EXPERIENCE

2019—Present 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)
  - Leveraged geographic information systems (GIS) data and reduced representation sequencing data to test for genetic-environment associations and identify candidate genes underlying local adaptation.

#### 2017—2019 Department of Biology, University of Iowa

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-hostsharing species
- Investigation of the thermal melanism hypothesis in three temporally isolated Strauzia species
  - o Quantified thermal properties of differentially pigmented Strauzia species
  - Tested for differences in fitness proxies at cold temperatures among differentially pigmented Strauzia species

# **TEACHING EXPERIENCE**

# 2020 General Biology (BIO 102), Teaching Assistant

School of Biological Sciences, Washington State University

- Taught 36 students per semester
- Led laboratory experiments

# 2019 General Ecology (BIO 372), Teaching Assistant

School of Biological Sciences, Washington State University

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

## **PUBLICATIONS**

**Beer, M.A.**, Kane, R.A., Micheletti, S.J., Kozakiewicz, C.P., and A. Storfer. Landscape genomics of the streamside salamander (*Ambystoma barbouri*). *In preparation*.

Hippee, A.C., **Beer, M.A.**, Bagley, R.K., Condon, M.A., Kitchen, 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**

\* Presenting researcher

\*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.

\*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**

2020	Biology Graduate Student Association Family Fun Week  Designed an ecology-centered take-home activity for children ages 12+  Contributed two online video lessons  Assisted in promotional activities
2019—2020	Palouse Discovery Science Center, Pullman, WA  • Designed and led scientific enrichment activities for children ages 3-13yrs
2020	Invited research talk, Undergraduate Research Club, Washington State University  • Presented doctoral research to promote interest in scientific research
2015—2019 2017—2018 2015—2016	Univ. of Iowa Biological Interests Organization Volunteer Fermilab Ecological Restoration Volunteer Univ. of Iowa Student Garden Volunteer

## PROFESSIONAL MEMBERSHIP

2020—Present	American Society of Naturalists
2018—2019	Society for the Study of Evolution