

Kaitlyn J. Howell

Curriculum vitae

University of Texas at Arlington
Arlington, TX 76019 USA
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EDUCATION

- Ph.D. Quantitative Biology
University of Texas at Arlington, May 2022
Dissertation: *THE EVOLUTION OF NEUROSENSORY STRUCTURES: EVALUATING ECOLOGICAL DRIVERS OF BRAIN AND EYE SIZE*
Advisor: Matthew R. Walsh, Ph.D.
- B.S. Biology, *Magna cum laude*
University of Texas at Arlington, December 2016

ACADEMIC APPOINTMENTS

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|------------------|---|
| Summer 2021 | Fellow, Directorate Fellows Program, Carlsbad CA Ecological Services Office, U.S. Fish & Wildlife Service |
| Spring 2021 | Graduate Research Assistant, National Science Foundation: CAREER: Does behavioral plasticity promote or impede adaptation? A test using resurrection. PI: Matthew R. Walsh, Ph.D. |
| 2017-Present | Graduate Teaching Assistant, Department of Biology, University of Texas at Arlington |
| 2015 to May 2017 | Undergraduate lab manager, The Walsh Lab, University of Texas at Arlington |
| Summer 2016 | Undergraduate Research Assistant, Toolik Field Station, Alaska |

PUBLICATIONS

Howell, K.J., M.R. Walsh. 2022 (*in review*). Experimental evidence demonstrating that larger brains increase fitness in novel environments in Trinidadian killifish (*Anablepsoides hartii*). *Ecology Letters*, MS ID: ELE-00530-2022.

Howell, K.J., S. Muh*, B. Parajuli*, M.R. Walsh. 2022 (*in review*). Experimental test of the influence of light availability on the evolution of eye size and behavior in *Daphnia*. *Evolution*, MS ID: 22-0268

Howell, K.J., S.M. Beston, and M.R. Walsh. 2022. Sex-specific evolution of brain size, brain structure, and covariation with eye size in Trinidadian killifish. *Biological Journal of the Linnean Society*. <https://doi.org/10.1093/biolinnean/blac033>

Howell, K.J., S.M. Beston, S. Stearns*, and M.R. Walsh. 2021. Coordinated Evolution of Brain Size, Structure, and Eye Size in Trinidadian killifish. *Ecology and Evolution*. <https://doi.org/10.1002/ece3.7051>

*indicates undergraduate author

GRANTS AND AWARDS

2021 William F. Pyburn Fellowship, Department of Biology, UTA, \$1180

2020 Grant-In-Aid of Research, Sigma Xi: The Scientific Research Society, \$800

2019 Travel Grant, Beta Phi Chapter of Phi Sigma Biological Honor Society, \$750
 Research Grant, Beta Phi Chapter of Phi Sigma Biological Honor Society, \$3000
 RC Lewontin Early Award, Society for the Study of Evolution, \$2500
 I-Engage Mentor Program Scholarship, Office of Graduate Studies, UTA, \$2000

2018 Research Grant, Beta Phi Chapter of Phi Sigma Biological Honor Society, \$3000

PRESENTATIONS

Posters:

2019: **Howell, K.J.** and M.R. Walsh. Connecting brain size, behavioral flexibility, and dispersal in Trinidadian killifish (*Rivulus hartii*). *Evolution 2019*, Providence, RI.

Contributed Talks:

2021: **Howell, K.J.** and M.R. Walsh. Evaluating the ecological drivers of evolved brain size differences in Trinidadian killifish. American Society of Naturalists. *Virtual Asilomar 2021*.

SERVICE AND OUTREACH

2021-22 Secretary, Beta Phi Chapter of the Phi Sigma Biological Honor Society; Served on volunteer Executive Committee

2019 EarthX, Dallas, Texas; Public Outreach

2018 EarthX, Dallas, Texas; Public Outreach

2017 Ecofest, Arlington, Texas; Public Outreach

2017 EarthDay TX, Dallas, Texas; Public Outreach

2012-2014 Botanical Research Institute of Texas, Herbarium volunteer

MENTORSHIP

*I-Engage Mentorship Program participant, UTA, Summer 2019

+Co-Mentored

2021 Dua Malik, Undergraduate, University of Texas at Arlington
2020-2021 Sarah Muh, Bibek Parajuli, Undergraduates, University of Texas at Arlington
2019-2020 Aleah Levine, Undergraduate, University of Texas at Arlington
2019 Nisha Gamadia*, Undergraduate, University of Texas at Arlington
2018 Anum Zobairi+, Undergraduate, University of Texas at Arlington
2017- 2018 Sara Stearns+, Honors College Undergraduate, University of Texas at Arlington

TEACHING

2022 SP Teaching Assistant, Ecology Laboratory
2021 FA Teaching Assistant, Ecology Laboratory
2020 FA Teaching Assistant, Ecology Laboratory
2020 SU Teaching Assistant, Zoology Laboratory
2020 SP Teaching Assistant, Zoology Laboratory
2019 FA Teaching Assistant, Ecology Laboratory
2019 SU Teaching Assistant, Zoology Laboratory
2019 SP Teaching Assistant, Zoology Laboratory
2018 FA Teaching Assistant, Ecology Laboratory
2018 SU Teaching Assistant, Anatomy and Physiology II Laboratory
2018 SP Teaching Assistant, Anatomy and Physiology I Laboratory
2017 FA Teaching Assistant, Ecology Laboratory

PROFESSIONAL ACTIVITIES

Society Membership:

Beta Phi Chapter of the Phi Sigma Biological Honor Society
The Society for the Study of Evolution (SSE)
The American Association of University Women (AAUW)
American Society of Naturalists (ASN)

Reviewer:

Ecology and Evolution