

Hannah Weller

Research interests: relationships between form, function, and behavior; fish biodiversity; evolutionary transitions; image processing.

Education

2017—Present **Graduate student, Ecology and Evolutionary Biology**; Brown University (Providence, RI)

Thesis: Functional morphology of mouthbrooding in fishes

2007—2010 **Honors BSc, Biology**; University of Chicago (Chicago, IL)

*Honors thesis: Winnowing in the geophagine cichlid *Satanoperca daemon**

Peer-reviewed publications

Weller, H.I., and Westneat, M.W. (2019) Quantitative color profiling of digital images with earth mover's distance using the R package colordistance. *PeerJ*. [10.7717/peerj.6398](https://doi.org/10.7717/peerj.6398)

Weller, H.I. (2019) colordistance: Distance Metrics for Image Color Similarity (ver. 1.1.0). CRAN repository. <https://CRAN.R-project.org/package=colordistance>

Weller, H.I. (2018) countcolors: Locates and Counts Pixels Within Color Range(s) in Images (ver. 0.9.1). CRAN Repository. <https://CRAN.R-project.org/package=countcolors>

Weller, H.I., McMahan, C.D., and Westneat, M.W. (2016) Dirt-sifting Devilfish: Winnowing in the geophagine cichlid *Satanoperca daemon* and evolutionary implications. *Zoomorphology*. [10.1007/s00435-016-0335-6](https://doi.org/10.1007/s00435-016-0335-6)

Publications in preparation

Weller, H.I., Olsen, A., Camp, A.L., Hernandez, L.P., Manafzadeh, A.R., and Brainerd, E.L. (2019) An XROMM study of intra-oral transport and swallowing in catfish. *Integrative Organismal Biology* (in prep).

Cohen, K.E., **Weller, H.I.**, and Summer, A.P. (2019) Functional homodonty: a statistical measure of tooth stress as it relates to shape. *Journal of Anatomy* (in prep).

Hooper, S., **Weller, H.I.**, and Amelon, S. (2019) Creation and validation of the R-package countcolors for repeatable, objective quantification of the fluorescence emitted by *Pseudogymnoascus destructans* on the wing membrane of hibernating bats. *Journal of Wildlife Diseases* (accepted).

van Meer, N.M., **Weller, H.I.**, Manafzadeh, A.R., Kaczmarek, E.B., Scott, B., Gussekloo, S.W.S., Wilga, C.D., Brainerd, E.B., and Camp, A.L. (2018) Food capture, transport and swallowing in white-spotted bamboo sharks. *Journal of Experimental Biology* (in prep).

Presentations

Weller, H.I., Cohen, K.E., Gibb, A., and Brainerd, E.L. (Jan. 2019) Poster: Using tethers to measure food transport in a flatfish. *Society for Integrative and Comparative Biology, Tampa, FL*.

Weller, H.I., Olsen, A., Camp, A.L., Hernandez, L.P., Manafzadeh, A.R., and Brainerd, E.L. (Jan. 2019) Talk: An XROMM study of intra-oral transport and swallowing in catfish. *Society for Integrative and Comparative Biology, Tampa, FL*.

Weller, H.I. and Brainerd, E.L. (Oct. 2017) Talk: How do fish swallow food? *Regional Division of Vertebrate Morphology (Northeast), Lowell, MA*.

Weller, H.I., McMahan, C.D., and Westneat, M.W. (July 2016) Poster: Dirt-sifting devilfish: winnowing in eartheater cichlids. *American Society of Ichthyologists and Herpetologists, New Orleans, LA*.

Awards and Fellowships

Graduate Research Fellowship (National Science Foundation)

\$138,000, awarded April 2019

Field Museum Visiting Scientist Scholarship (Field Museum of Natural History)

\$1,500, awarded December 2018

Jeff Metcalf Undergraduate Research Fellowship (Marine Biological Laboratory)

\$5,000, awarded June 2015

Presidential Fellowship (Brown University)

\$108,000, awarded May 2017

Elected to Phi Beta Kappa Society

March 2015

Best Presentation, Undergraduate Research Symposium (University of Chicago)

\$150, awarded September 2014

Elliott and Eileen Hinkes Research Fellowship (University of Chicago)

\$4,000, awarded June 2014

Research experience

Oh, bother it. I'll finish this later.

Teaching and outreach

Skills

- Human Languages:
 - English (native speaker)
 - ???
- Random tidbit
- Other sort of impressive-sounding thing you did

References

Lab: Biomedical Center 426, 171 Meeting St., Providence, RI 02906

Email: hannahiweller@gmail.com

Website: hiweller.github.io