

# EMILY V.W. SETTON

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## EDUCATION

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Ph.D., in progress	University of Wisconsin-Madison, Integrative Biology	2018-present
B.S.	University of Wisconsin-Madison	2017

## APPOINTMENTS

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2018-present	Ph.D. student, Sharma Lab (Integrative Biology)
2015-2017	Undergraduate research assistant, Sharma Lab (Integrative Biology)
2015	Undergraduate research assistant, Hawks Lab (Anthropology)

## TEACHING EXPERIENCE

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### *TEACHING ASSISTANT*

2023	Zoology 300: The Biology and Evolution of Invertebrates (UW-Madison)
2019	Zoology 301: The Biology and Evolution of Invertebrates Lab (UW-Madison)

## GRANTS, FELLOWSHIPS AND HONORS

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2022	University of Wisconsin—Madison Department of Integrative Biology's John Jefferson Davis student travel award for conference attendance
2021	University of Wisconsin—Madison Department of Integrative Biology's Graduate Summer Research Award
2020	University of Wisconsin—Madison Department of Integrative Biology's Graduate Summer Research Award
2019	Best student poster in "Morphology, Physiology, and Silk." 21 <sup>st</sup> International Congress of Arachnology 2019, Lincoln, New Zealand
2019	National Science Foundation Graduate Research Fellowship (GRFP) recipient (3 years RA funding)
2019	University of Wisconsin—Madison Department of Integrative Biology's Graduate Summer Research Award
2018	AAAS/Science Program for Excellence in Science award recipient (sponsored membership)
2018	University of Wisconsin—Madison Department of Integrative Biology's John Jefferson Davis student travel award for conference attendance
2018	National Science Foundation (NSF) student travel grant for the Third Global Invertebrate Genomics Alliance Conference and Workshop (GIGA III) 2018, Willemstad, Curacao

- 2018 American Arachnological Society's Arachnological Research Fund Student Research Grant.
- 2018 Charlotte Mangum Student Support Program Award, SICB Annual Meeting 2018, San Francisco, CA
- 2016 Laudier Histology Student Travel Award, 20th International Congress of Arachnology 2016, Golden, CO
- 2015 Biology 152 grant to print research poster, UW-Madison

## PUBLICATIONS

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†Undergraduate co-author.

\*equal author contribution

10. \*Gainett, G., \*†Crawford, A.R., †Klementz, B.C., †So, C., Baker, C.M., **Setton, E.V.W.**, Sharma, P.P. (2022) Eggs to longlegs: Embryonic staging of the harvestman Phalangium opilio (Opiliones), an emerging model arachnid. *Frontiers in Zoology* 19: 11.

9. Ballesteros, J.A., Santibáñez-López, C.E., Baker, C.M., Benavides, L.R., Cunha, T.J., Gainett, G., Ontano, A.Z., **Setton, E.V.W.**, Arango, C.P., Gavish-Regev, E., Harvey, M.S., Wheeler, W.C., Hormiga, G., Giribet, G., Sharma, P.P. (2022) Comprehensive species sampling and sophisticated algorithmic approaches refute the monophyly of Arachnida. *Molecular Biology and Evolution* 39(2): msac021 [Featured in the *New York Times*]

8. Gainett, G., González, V.L., Ballesteros, J.A., **Setton, E.V.W.**, Baker, C.M., †Barolo Gargiulo, L., Santibáñez-López, C.E., Coddington, J.A., Sharma, P.P. (2021) The genome of a daddy-long-legs (Opiliones) illuminates the evolution of arachnid appendages and chelicerate genome architecture. *Proceedings of the Royal Society B* 288: 20211168. [Featured in *Science*] [Featured in *Nature*] [Featured in *The New York Times*] [Featured in *The Atlantic*] [Featured in *National Public Radio*]

7. **Setton, E.V.W.**, Sharma, P.P. (2021) A conserved role for arrow in posterior axis patterning across Arthropoda. *Developmental Biology* 475: 91-105.

6. Ontano, A.Z., Gainett, G., Aharon, S., Ballesteros, J.A., Benavides, L.R., †Corbett, K.F., Gavish-Regev, E., Harvey, M.S., Monsma, S., Santibáñez-López, C.E., **Setton, E.V.W.**, †Zehms, J.T., Zeh, J.A., Zeh, D.W., Sharma, P.P. (2021) Taxonomic sampling and rare genomic changes overcome long-branch attraction in the phylogenetic placement of pseudoscorpions. *Molecular Biology and Evolution* 38: 2446-2467.

5. \*Ballesteros, J.A., \***Setton, E.V.W.**, \*Santibáñez-López, C.E., Arango, C.P., Brenneis, G., Brix, S., Cano-Sánchez, E., †Corbett, K.F., †Dandouch, M., Dilly, G.F., Eleaume, M.P., Gainett, G., Gallut, C., †McAtee, S., †McIntyre, L., Moran, A.L., †Moran, R., López-González, P.J., Scholtz, G., Williamson, C., Woods, H., †Zehms, J.T., Wheeler, W.C., Sharma, P.P. (2021) Phylogenomic resolution of sea spider diversification through integration of multiple data classes. *Molecular Biology and Evolution* 38: 686-701. [Featured in *Science*]

4. **Setton, E.V.W.**, Hendrixson, B.E. & Sharma, P.P. (2019) Embryogenesis in a Colorado population of *Aphonopelma hentzi* (Girard, 1852) (Araneae, Mygalomorphae, Theraphosidae): establishing a promising system for the study of mygalomorph development. *Journal of Arachnology*. 47: 209-216. [Cover article]

3. †March, L.E., †Smaby, R.M., †Setton, E.V.W. & Sharma, P.P. (2018) The evolution of selector gene function: Expression dynamics and regulatory interactions of tiptop/teashirt across Arthropoda. *Evolution & Development*. 20: 219-232.
2. †Setton, E.V.W. & Sharma, P.P. (2018) Cooption of an appendage patterning gene cassette in the head segmentation of arachnids. *Proceedings of the National Academy of Sciences of the USA* 115: E3491-E3500.
1. †Setton, E.V.W., †March, L.E., †Nolan, E.D., Jones, T.E., Cho, H., Wheeler, W.C., Extavour, C.G. & Sharma, P.P. (2017) Expression and function of *spineless* orthologs correlate with distal deutocerebral appendage morphology in Arthropoda. *Developmental Biology* 430: 224–236.

## PRESENTATIONS

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2023	22 <sup>nd</sup> International Congress of Arachnology, Montevideo, Uruguay (planned) (one talk)
2022	Arthropod Genomics Symposium, South Bend, IN (one talk, invited speaker)
2022	Annual Meeting of the Society of Integrative & Comparative Biology, Phoenix, AZ (one talk)
2020	Annual Meeting of the Society of Integrative & Comparative Biology, Austin, TX (one talk)
2019	21st International Congress of Arachnology, Canterbury, New Zealand (one talk, one poster)
2018	Global Invertebrate Genomics Alliance Third Annual Conference and Workshop, Willemstad, Curacao (one talk)
2018	Annual Meeting of the Society of Integrative & Comparative Biology, San Francisco, CA (one talk)
2017	Annual Meeting of the Society of Integrative & Comparative Biology, New Orleans, LA (one talk, one poster)
2016	20th International Congress of Arachnology, Golden, CO (one talk)
2015	Biology 152 Research Poster Fair (one poster)

## SERVICE AND OUTREACH

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### SOCIETY MEMBERSHIPS

2018-present	American Society of Arachnology (student member)
2018-2020	American Association for the Advancement of Science (AAAS) / Science (sponsored)
2016-present	International Society of Arachnology (student member)
2016-present	Society of Integrative and Comparative Biology (student member)

### OUTREACH

2019	Sharma Lab organizer for AP Biology Students at Reedsburg Area High School to UW-Madison for “A Day in a Research Lab.”
2019	Sharma Lab organizer for visiting students at Centro Hispano’s “Juventud” after school program, Tokay Middle School, Madison, WI

- 2018-2020 Sharma Lab organizer for University of Wisconsin-Madison's Darwin Day outreach event for elementary school children
- 2017 Guest lecturer to AP Biology students on evo-devo and undergraduate research, Reedsburg Area High School, Reedsburg, WI
- 2016-2020 Assistant for Fourth Tuesday Club (faculty dinner and STEM-field guest lecture), University of Wisconsin—Madison, Madison, WI

## FIELDWORK

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- 2021 La Junta, Colorado, USA (5 days)
- 2021 La Junta, Colorado, USA (10 days)
- 2020 Austin, TX, USA (3 days)
- 2018 La Junta, Colorado, USA (12 days)