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| **J. Colton Watts**  Email: j.colton.watts@gmail.com  Web: jcoltonwatts.github.io | Texas A&M University  Department of Biology  College Station, TX, USA |

**Academic Appointments:**

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| January 2021 – present | Postdoctoral Research Associate**,** Department of Biology, Texas A&M University |
| August – December 2020 | Postdoctoral Research Associate, School of Biological Sciences, University of Nebraska-Lincoln |

**Education:**

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| 2020 | Ph.D., Biology, University of Nebraska-Lincoln |
| 2014 | M.S., Biology, East Tennessee State University |
| 2012 | B.S., Biology, East Tennessee State University |

**Publications:**

*\* indicates undergraduate coauthor*

**Watts JC**, Hebets EA, Tenhumberg B (**2022**) Mate sampling behavior determines the density-dependence of sexual selection. *The American Naturalist 200*(4): 467-485.

Wilgers DJ, **Watts JC**, Hebets EA (**2022).** Habitat complexity and complex signal function—exploring the role of ornamentation. *Behavioral Ecology 33*(1): 307-317.

Lehmann KDS, Shogren FG\*, Fallick M\*, **Watts JC**, Schoenberg D\*, Wiegmann DD, Bingman VP, Hebets EA (**2022**). Exploring higher-order conceptual learning in an arthropod with a large multisensory processing center. *Insects 13*(1): 81.

**Watts JC,** Tenhumberg B (**2021**) Optimal resource allocation and prolonged dormancy strategies in herbaceous plants. *Journal of Ecology 109*(1): 218-233.

**Watts JC,** Flynn AT\*, Tenhumberg B, Hebets EA (**2019**) Sexual selection does not explain intraspecific variation in male display traits among populations. *Evolution* *73*: 1927-1940.

Anderson AG, Hebets EA, Bickner B\*, **Watts JC** (**2018**) Males mate with multiple females to increase offspring number in a nursery web spider. *Behavioral Ecology* *29*(4): 918-924.

**Watts JC*,*** Jones TC, Herrig A\*, Miller M\*, Tenhumberg B (**2018**) Temporal variation in predation risk may explain daily rhythms of foraging behavior in an orb-weaving spider. *The American Naturalist* *191*(1): 74-87.

Moore DJ, **Watts JC**, Herrig A\*, Jones TC (**2016**) Exceptionally short-period circadian clock in *Cyclosa turbinata*: regulation of locomotor and web-building behavior in an orb-weaving spider. *Journal of Arachnology* *44*(3): 388-396.

Quijano A, Joyner ML, Ross C, **Watts JC**, Seier E, Jones TC (**2016**) Spatio-temporal analysis of foraging behaviors of *Anelosimus studiosus* utilizing mathematical modeling of multiple spider interaction on a cooperative web. *Journal of Theoretical Biology* *408*: 243-259.

**Watts JC**, Ross CR, Jones TC (**2015**) Diel and life-history characteristics of personality: consistency versus flexibility in relation to ecological change. *Animal Behaviour* *101*: 43-49.

**Watts JC**, Herrig A\*, Allen WD\*, Jones TC (**2014**)Diel patterns of foraging aggression and antipredator behaviour in the trashline orb-weaving spider, *Cyclosa turbinata*. *Animal Behaviour 94*: 79-86.

Joyner ML, Ross CR, **Watts JC**, Jones TC (**2014**) A stochastic simulation model for *Anelosimus studiosus* during prey capture: A case study for determination of optimal spacing. *Mathematical Biosciences and Engineering* *11*(6): 1411-1429.

**Articles in Progress:**

**Watts JC**, Fitzpatrick CL (**In Revision)** The evolution of female ornaments in polygyny through competition for males who benefit female survival. *Anticipated resubmission date: November 1, 2023*

**Watts JC**, Fitzpatrick CL (**In Prep.**) Absolute mate limitation and the evolutionary ecology of female sexual traits. *Anticipated submission date: December 1, 2023.*

**Watts JC**, Cressler C, DeLong JP (**In Prep.**) Transient ecological dynamics in stochastic, evolving populations. *Anticipated submission date: January 1, 2023.*

**Honors, Awards, and Research Funding:**

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| 2020 | Warder Clyde Allee Award for Best Student Paper, Animal Behavior Society, $800 |
| 2020 | Graduate Student Travel Award, University of Nebraska, $500 (declined due to insufficient funds) |
| 2019 - 2020 | Presidential Graduate Fellowship, University of Nebraska, $24,000 |
| 2019 | Biological Sciences Special Funds, University of Nebraska, $875 |
| 2018 | Student Travel Award, American Arachnological Society, $280 |
| 2018 | Biological Sciences Special Funds, University of Nebraska, $1,000 |
| 2016 | Student Research Grant, Animal Behavior Society, $1,000 |
| 2015-2017 | GAANN Fellowship, University of Nebraska, $14,498 |
| 2015 | Biological Sciences Special Funds, University of Nebraska, $1,000 |
| 2014-2017 | Othmer Fellowship, University of Nebraska, $24,000 |
| 2014 | Best Graduate Oral Presentation in Natural Sciences, Appalachian Student Research Forum |
| 2013-2014 | James H. Quillen Graduate Scholar, East Tennessee State University, $4,000 |
| 2013 | Runner-up Best Student Talk, American Arachnological Society, $150 |
| 2013 | Best Graduate Poster Presentation in Natural Sciences, Appalachian Student Research Forum |

**Invited Presentations:**

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| 2022 | **Watts JC**. Mate sampling strategies shape ecological and evolutionary responses to environmental change. Department of Biological Sciences Seminar Series, East Tennessee State University |
| 2022 | **Watts JC**, Fitzpatrick CL. The evolution of female ornaments through survival benefits in polygynous mating systems. Ecology, Evolution, and Behavior Interdisciplinary Degree Program Seminar Series. Texas A&M University |
| 2020 | **Watts JC**, Hebets EA, Tenhumberg B. Mate Sampling Behavior Determines the Density-Dependence of Sexual Selection. Warder Clyde Allee Symposium, Animal Behavior Society |

**Contributed Presentations:**

*\* indicates undergraduate coauthor*

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| 2022 | **Watts JC**, Fitzpatrick CL. The evolution of female ornaments through survival benefits in polygynous mating systems. Oral Presentation, Animal Behavior Society |
| 2022 | **Watts JC**, Fitzpatrick CL. The evolution of female ornaments through survival benefits in polygynous mating systems. Oral Presentation, Ecological Integration Symposium |
| 2019 | **Watts JC**, Tenhumberg B. Optimal resource allocation and prolonged dormancy strategies in herbaceous plants. Oral Presentation, Ecological Society of America |
| 2019 | **Watts JC,** Hebets EA, Tenhumberg B. Optimal mate choice behavior determines the density-dependence of sexual selection. Poster Presentation, Evolution |
| 2018 | **Watts JC**, Tenhumberg B, Hebets EA. Geographic variation in male phenotype in relation to female mate choice. Oral Presentation, International Society of Behavioral Ecology |
| 2018 | **Watts JC**, Tenhumberg B, Hebets EA. Geographic variation in male phenotype in relation to female mate choice. Oral Presentation, American Arachnological Society |
| 2016 | **Watts JC**, Tenhumberg B, Hebets EA. Geographic variation in male phenotype in relation to female mate choice. Poster Presentation, Animal Behavior Society |
| 2016 | **Watts JC**, Tenhumberg B, Hebets EA. Geographic variation in male phenotype in relation to female mate choice. Poster Presentation, International Congress of Arachnology |
| 2015 | **Watts JC**, Hancock N\*, Herrig A\*, Miller M\*, Normark S, Wilson R, Jones TC. Diel patterns of courtship in the subsocial spider *Anelosimus studiosus* (Araneae:Theridiidae) may not be driven by female aggression. Oral Presentation, American Arachnological Society |
| 2014 | **Watts JC**, Herrig A\*, Normark S, Miller M\*, Jones TC. Ecological implications of diel rhythms of foraging and antipredator behavior in *Cyclosa turbinata* (Araneae: Araneidae). Oral Presentation, American Arachnological Society |
| 2014 | **Watts JC**, Herrig A\*, Normark S, Miller M\*, Jones TC. Ecological implications of diel rhythms of foraging and antipredator behavior in *Cyclosa turbinata* (Araneae: Araneidae). Oral Presentation, Appalachian Student Research Forum |
| 2013 | **Watts JC**, Herrig A\*, Allen WD\*, Jones TC.Chronoethology of *Cyclosa turbinata*. Oral Presentation, American Arachnological Society |
| 2013 | **Watts JC**, Ross CR, Jones TC, Seier E. Ecological Implications of Diel Rhythms of Aggression in the Subsocial Spider *Anelosimus studiosus* (Araneae: Theridiidae). Poster Presentation, Appalachian Student Research Forum |
| 2012 | **Watts JC**, Ross CR, Jones TC, Seier E. Ecological Implications of Diel Rhythms of Aggression in the Subsocial Spider *Anelosimus studiosus* (Araneae: Theridiidae). Oral Presentation, Entomological Society of America |

**Teaching Experience:**

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| Upcoming  (Fall 2022) | **Open Source for Open Science Workshop, Texas A&M University: Instructor.** Developing course materials and leading live-coding exercises for “The Grammar of Graphics: ggplot” and “Managing Data with Piping and tidyverse in R” modules for postdocs, graduates, and undergraduates. |
| 2019 | **Arachnology, University of Nebraska-Lincoln: Guest Lecture**. Worked with graduate students and postdocs to present research involving arachnid models systems in the context of course materials |
| 2018 | **Animal Behavior, University of Nebraska-Lincoln: Guest Lecture**. Presented hypotheses on mating system evolution, guided group discussion of primary literature and empirical support for hypotheses |
| 2017 | **Ecology and Evolution**, **University of Nebraska-Lincoln**: **Lab TA.** Developed weekly lectures and introductory discussions, led laboratory activities, assisted with development of independent research projects, and graded exams, quizzes, and written assignments |
| 2015 - 2017 | **Introductory Biology for Majors, University of Nebraska-Lincoln: Lab TA.** Presented course materials, led laboratory activities, and graded exams, quizzes, and written assignments |
| 2014 - 2015 | **Introductory Biology for non-Majors, University of Nebraska-Lincoln: Lab TA.** Presented course materials, led laboratory activities, and graded exams, quizzes, and written assignments |
| 2013 | **Arachnology, East Tennessee State University: Guest Lecture**. Presented lecture on daily rhythms and circadian biology of spiders, led group discussion of potential adaptive explanations of internal clocks |
| 2012 - 2014 | **Introductory Biology for Majors III, East Tennessee State University: Lab TA.** Developed lectures, exams, and quizzes on required course topics, led weekly lectures and laboratory activities, and graded exams, quizzes, and written assignments |

**Outreach and Service:**

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| 2022 - 2023 | Organizing Committee for the Ecology, Evolution, and Behavior Interdisciplinary Degree Program Seminar Series, Texas A&M University |
| 2022 | Student Presentation Judge, Ecological Integration Symposium, Texas A&M University |
| 2018 | “Eight-Legged Encounters” Science Outreach Program, SciComm 2018 Science Festival, Nebraska State Museum |
| 2017 | “Eight-Legged Encounters” Science Outreach Program, Toledo Zoo |
| 2017 | Organizing Committee and presenter, Darwin Day/Sunday with a Scientist, Nebraska State Museum |
| 2016 | “Eight-Legged Encounters” Science Outreach Program, U.S. Science & Engineering Festival, Washington, D.C. |
| 2016 | Vice President of Biology Graduate Student Association, University of Nebraska-Lincoln |
| 2014 | Co-coordinator for Community Learning Center science clubs, Lincoln Public Schools, Lincoln, NE |
| 2013 | Presenter, Johnson City Parks and Recreation Nature Programs, Johnson City, TN |
| 2013 | Judge for Upper East Tennessee Science Fair, East Tennessee State University |
| 2012 - 2013 | Field Assistant, Tennessee Governor’s School for Scientific Models and Data Analysis |

**Peer Review**:

*Evolution, Scientific Reports, Animal Behaviour, Climate Change Ecology*, *Journal of Arachnology, Biological Journal of the Linnean Society, Journal of Ethology, Ethology, Behavioral Ecology*, *Behavioural Processes.*

**Society Memberships:**

Animal Behavior Society, Society for the Study of Evolution, American Society of Naturalists.