

JENNIFER K. HELLMANN
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PROFESSIONAL EXPERIENCE AND EDUCATION

- 2020 – Present **Assistant Professor**
University of Dayton
Department of Biology
- 2017 – 2020 **National Institutes of Health NRSA postdoctoral fellow**
University of Illinois, Urbana-Champaign, Department of Ecology,
Evolution, and Behavior (PI Alison Bell)
- 2016 – 2017 **Postdoctoral associate**
University of Illinois, Urbana-Champaign, Department of Ecology,
Evolution, and Behavior (PI Alison Bell)
- 2011 – 2016 **PhD**
The Ohio State University, Department of Evolution, Ecology, and
Organismal Biology (PI Ian Hamilton)
- 2006 – 2010 **B.S./B.A**
Messiah College, Major: Biology, Spanish; Minor: Environmental Science

PEER REVIEWED PUBLICATIONS (* co-first authors, ^mentored student)

- [24] **Hellmann JK**, Bukhari SA, Deno J[^], Bell AM. In press. Sex-specific plasticity across generations I: Maternal and paternal effects in sons and daughters. *Journal of Animal Ecology*.
- [23] **Hellmann JK**, Carlson ER, Bell AM. In press. Sex-specific plasticity across generations II: grandpaternal effects are lineage- and sex-specific. *Journal of Animal Ecology*.
- [22] **Hellmann JK**, Stiver KA, Marsh-Rollo SE, Alonzo SH. 2020. Defense against outside competition is linked to cooperation in male-male partnerships. *Behavioral Ecology* 31: 432-439.
- [21] Donelan SC*, **Hellmann JK***, Bell AM, Luttbeg B, Orrock JL, Sheriff MJ, Sih A. 2020. Transgenerational plasticity in human-altered environments. *Trends in Ecology and Evolution* 35: 115-124.
- [20] Bell AM*, **Hellmann JK***. 2019. Transgenerational plasticity: mechanisms, evolution, and ecological significance. *Annual Review of Ecology, Evolution, and Systematics* 50: 97-118.
- [19] **Hellmann JK**, Hamilton IM. 2019. Intragroup social dynamics vary with the presence of neighbors in a cooperatively breeding fish. *Current Zoology* 65: 21-31.
- [18] Dellinger M[^], Zhang W, Bell AM, **Hellmann JK**. 2018. Do male sticklebacks use visual and/or olfactory cues to assess a potential mate's history with predation risk? *Animal Behaviour* 145: 151-159.
- [17] **Hellmann, JK**, Hamilton IM. 2018. Dominant and subordinate outside options alter help and eviction in a pay-to-stay negotiation model. *Behavioral Ecology* 29: 553-562.
- [16] Sabol AC^{^*}, **Hellmann JK***, Gray SM, Hamilton IM. 2017. The role of ultraviolet coloration in intrasexual interaction in a colonial fish. *Animal Behaviour* 131: 99-106.
- [15] Reddon AR, O'Connor CM, Nesjen E, Cameron J, **Hellmann JK**, Ligocki IY, Marsh-Rollo

- SE, Hamilton IM, Wylie DR, Balshine S, Hurd PL. 2017. Isotocin neuronal phenotypes differ among social systems in cichlid fishes. *Royal Society Open Science* 4: 170350.
- [14] **Hellmann JK**, Sovic MG, Gibbs HL, Reddon AR, O'Connor CM, Ligocki IY, Marsh-Rollo SE, Balshine S, Hamilton IM. 2016. Within-group relatedness is correlated with colony-level social structure and reproductive sharing in a social fish. *Molecular Ecology* 25: 4001-4013.
- [13] Reddon AR, O'Connor CM, Ligocki IY, **Hellmann JK**, Marsh-Rollo SE, Hamilton IM, Balshine S. 2016. No evidence for larger brains in cooperatively breeding fishes. *Canadian Journal of Zoology* 94: 373-378.
- [12] **Hellmann JK**, Ligocki IY, O'Connor CM, Reddon AR, Farmer TM, Marsh-Rollo SE, Balshine S, Hamilton IM. 2016. The influence of status and the social environment on energy stores in a social fish. *Journal of Fish Biology* 88, 1321-1334.
- [11] Ligocki IY, Reddon AR, **Hellmann JK**, O'Connor CM, Marsh-Rollo SE, Balshine S, Hamilton IM. 2015. Social status influences responses to unfamiliar conspecifics in a cooperatively breeding fish. *Behaviour* 152, 1821-1839.
- [10] Ligocki IY, Earley RL, **Hellmann JK**, Hamilton IM. 2015. Variation in glucocorticoid levels in relation to direct and third-party interactions in a social cichlid fish. *Physiology and Behavior* 151, 386-394.
- [9] O'Connor CM, Reddon AR, Ligocki IY, **Hellmann JK**, Garvy KA[^], Marsh-Rollo SE, Hamilton IM, Balshine S. 2015. Motivation but not body size influences territorial contest dynamics in a wild cichlid fish. *Animal Behaviour* 107, 19-29.
- [8] **Hellmann JK**, Ligocki IY, O'Connor CM, Reddon AR, Garvy KA[^], Marsh-Rollo SE, Gibbs HL, Balshine S, Hamilton IM. 2015. Reproductive sharing in relation to group and colony-level attributes in a cooperatively breeding fish. *Proceedings of the Royal Society B* 282, 20150954.
- [7] **Hellmann JK**^{*}, Reddon AR^{*}, Ligocki IY, O'Connor CM, Garvy KA[^], Marsh-Rollo SE, Balshine S, Hamilton IM. 2015. Group response to social perturbation: Impacts of isotocin and the social landscape. *Animal Behaviour* 105, 55-62.
- [6] **Hellmann JK**, O'Connor CM, Ligocki IY, Farmer TM, Arnold TJ[^], Reddon AR, Garvy KA[^], Marsh-Rollo SE, Balshine S, Hamilton IM. 2015. Evidence for alternative male morphs in a Tanganyikan cichlid fish. *Journal of Zoology* 296, 116-123.
- [5] **Hellmann JK**, Erikson J, Queenborough S. 2015. Evaluating macroinvertebrate community structure in the confluence of freestone and limestone streams. *Journal of Limnology* 74: 64-74.
- [4] Garvy K[^], **Hellmann JK**, Ligocki IY, Reddon AR, Marsh-Rollo SE, Hamilton IM, Balshine S, O'Connor CM. 2015. Sex and social status affect territorial defense in a cooperatively breeding cichlid fish, *Neolamprologus savoryi*. *Hydrobiologia* 748: 75-85.
- [3] Wilkenfeld DA^{*}, **Hellmann JK**^{*}. 2014. Understanding beyond grasping propositions: a study of chess and fish. *Studies in History and Philosophy of Science* 48: 46-51.
- [2] O'Connor CM, Reddon AR, Marsh-Rollo SE, **Hellmann JK**, Ligocki IY, Hamilton IM, Balshine S. 2014. A comparative study of immune response and social system in Lamprologine cichlid fishes. *Naturwissenschaften* 101: 839-849.
- [1] **Hellmann JK**, Hamilton IM. 2014. The presence and familiarity of neighbors influences defense against predators in a cooperatively breeding cichlid. *Behavioral Ecology* 25: 386-391.

MANUSCRIPTS IN REVIEW OR IN PREP (manuscript available upon request)

Hellmann JK, Carlson ER, Bell AM. In revision. The interplay between sperm-mediated and care-mediated paternal effects in threespined sticklebacks. *Animal Behaviour*

Chen E[^], Zielinski C[^], Singh R[^], Deno J[^], Bell AM, **Hellmann JK**. In review. The specificity of sperm-mediated paternal effects in threespined sticklebacks. *Behavioral Ecology and Sociobiology*.

MacLeod K, **Hellmann JK**, Hermann SL, Sheriff M. In prep. Beyond predators: the role of the broader maternal environment in maternal predation risk effects and transgenerational plasticity.

TEACHING EXPERIENCE

2020	University of Dayton (Instructor of Record) BIO 299: Biology Seminar (Fall 2020)
2017	University of Illinois, Urbana-Champaign (Co-Instructor of Record) Physiology (Spring 2017)
2012 – 15	The Ohio State University (Graduate Teaching Assistant) Evolution (2 semesters), Human Physiology (3 semesters), Biology for Non-majors (1 semester)

GRANTS AND AWARDS (Total: \$386,587)

2018	International Society for Behavioral Ecology Travel Grant	\$500
2018	Gordon Research Conference Travel Grant	\$250
2017	National Institutes of Health F32 NRSA Postdoctoral Fellowship	\$182,682
2017	NSF Postdoctoral Fellowship in Biology (declined)	\$138,000
2017	American Genetic Association EECG Research Award	\$9740
2016	National Science Foundation Travel Grant	\$1000
2016	International Society for Behavioral Ecology Travel Grant	\$1600
2016	Finalist, UC Presidential Postdoctoral Fellowship	
2015	The Ohio State University Career Development Grant	\$350
2015	Presidential Fellowship, The Ohio State University	\$26,266
2014	The Ohio State University AGGRS	\$2000
2014	International Society for Behavioral Ecology Travel Grant	\$750
2013	Animal Behaviour Society Student Research Grants	\$1000
2012	SciFund Crowdfunding	\$1440
2012	American Academy of Underwater Sciences	\$1500
2012	The Ohio State University Fish Systematics Endowment	\$1000
2011	University Fellowship, The Ohio State University	\$15,785
2009	Steinbrecher Summer Research Scholarship	\$4000
2008	NSF Research Experience for Undergraduates, Ursinus College	\$4500

INVITED TALKS

2020	UC Davis, Animal Behavior Graduate Group
2020	UC Santa Cruz, Department of Ecology and Evolutionary Biology
2020	California State University, Fullerton, Department of Biological Science
2020	Gordon Research Conference, Predator-Prey Interactions
2019	University of Dayton, Department of Biology
2019	Cornell University, Department of Neurobiology and Behavior
2019	University of Massachusetts, Dartmouth, Department of Biology
2018	Clemson University, Department of Biological Sciences
2018	University of Illinois, Behavioral Ecology (IB431)
2018	Mathematical Biosciences Institute, The Ohio State University
2018	University of Illinois, Science Communication Skills workshop
2018	University of Illinois, Animal Behavior (IB429)
2018	University of Texas Austin, Brain, Behavior, & Evolution Symposium
2017	University of Illinois, Animal Behavior (IB429)

2016 Western Kentucky University, Department of Biology
 2016 Ohio Wesleyan University, Science Lecture Series
 2015 Florida State University, Department of Biological Science
 2013 Ohio State University, Undergraduate Seminar in Mathematical Biology Research

PROFESSIONAL PRESENTATIONS

2020 Gordon Research Conference, Predator-Prey Interactions
 2020 Society of Integrative and Comparative Biology
 2019 Behaviour (Symposium: Behavioral Plasticity)
 2019 Evolution Evolving
 2018 International Society for Behavioral Ecology
 2018 Gordon Research Conference, Predator-Prey Interactions
 2018 Society of Integrative and Comparative Biology
 2017 UIUC Animal Biology colloquium
 2017 Allee Symposium, Animal Behaviour Society
 2017 Society of Integrative and Comparative Biology
 2016 International Society for Behavioral Ecology
 2015 Society of Integrative and Comparative Biology
 2015 Animal Behavior Society
 2015 OSU EEOB Darwin Awards
 2015 OSU Graduate student research forum
 2014 International Society for Behavioral Ecology
 2014 Santa Fe Institute CSSS Final Proceedings
 2014 Midwest Evolution and Ecology
 2013 Animal Behaviour Society
 2010 UMBC Undergraduate Research Symposium
 2010 Ecological Society of America

MENTORED STUDENTS (*independent research project, ^talk/poster presentation)

2019-20 Samantha Anderson*, UIUC. Undergraduate researcher
 2019-20 Andrew Shim*, UIUC. Undergraduate researcher
 2019-20 Cassandra Afseth*, UIUC. Undergraduate researcher, Distinction project
 2018 Caroline Caton, UIUC. Undergraduate researcher
 2018 Shayne Kempfer*, UIUC. PRECS summer research program
 2018 Raiza Singh*, UIUC. Undergraduate researcher
 2017-18 Christian Zielinski*^, UIUC. Undergraduate researcher
 2017-18 Jack Deno*, UIUC. Undergraduate researcher
 2017-18 Erin Hsiao*, UIUC. Undergraduate researcher
 2017-18 Yangxue Ma*, UIUC. Undergraduate researcher
 2016-18 Eunice Chen*^, UIUC. Undergraduate researcher, Distinction project
 2017 Liam Masse, UIUC. Undergraduate researcher
 2017 Kayla Kulinski*^, UIUC. PRECS summer research program
 2016 Marion Dellinger*^, UIUC. Meriel Veterinary Scholars Program
 2015-16 Ryan Hudson, OSU. Undergraduate researcher
 2015-16 Abby Pope, OSU. Undergraduate researcher
 2014-16 Anne Sabol*^, OSU. Undergraduate researcher
 2013 Kelly Garvy*, OSU. Field assistant

SERVICE

2020 Judge, Society of Integrative and Comparative Biology annual meeting
2019 Symposium co-organizer, Behaviour 2019, Chicago IL (Title: Behavioral Plasticity)
2019 Reviewer, Graduate Women In Science fellowships
2018 – 20 Reviewer, Animal Behavior Student Research Grants
2017 – 18 Judge, UIUC Undergraduate Research Symposium
2017 National Science Foundation Data Nugget
2017 Facilitator, Orpheum Children’s Museum Girls Do Science Club
2016, 18, 20 National Science Foundation External Reviewer
2016 Organized public seminar on climate change at OSU
2016 Designed ‘Colorful Chameleon’ children’s activity, OSU Museum of Biological Diversity Open House
2015 Organized Women In Science forum for OSU EEOB graduate students
2015 – 16 President, OSU Graduate Evolution Ecology Student Organization
2014 – 15 Volunteer, OSU Museum of Biological Diversity Open House
2014 – 15 Graduate Student Representative, OSU Faculty Search Committee
2014 – 15 Judge, OSU Undergraduate Research Forum
2013 – 14 Graduate Student Representative, OSU EEOB Graduate Admission Committee

JOURNAL REVIEW

Molecular Ecology, Proceedings of the Royal Society B, Environmental Biology of Fishes, PeerJ, Physiology and Behavior, Journal of Insect Physiology, Animal Behaviour, Ecology and Evolution, Behavioral Ecology and Sociobiology, American Naturalist, Royal Society Open Science, Behavioral Ecology, Evolution, Functional Ecology, Journal of Animal Ecology, Journal of Fish Biology, Nature Scientific Reports, Evolution and Development

PROFESSIONAL ORGANIZATIONS

2017 – Present American Society of Naturalists
2015 – Present Society for Integrative and Comparative Biology
2014 – Present International Society for Behavioral Ecology
2013 – Present Animal Behavior Society