

PAULA A. TRILLO
ASSISTANT PROFESSOR – GETTYSBURG COLLEGE
Department of Biology
300 North Washinton Street
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PROFESSIONAL APPOINTMENTS

- 2014 -Present: **Assistant Professor**, *Gettysburg College, Department of Biology*
- 2011- 2014: **Postdoctoral Fellow**, *Butler University and Smithsonian Tropical Research Institute.*
Advisors: Drs. Carmen Salsbury and Donald Windsor, and Rachel Page.
- 2009–2011: **Postdoctoral Fellow**, *Colorado State University and the Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima-Peru*
Advisors: Drs. Chris Funk and Kim Hoke
- 2000-2001: **Research Fellow**, *Cornell University, Cornell Lab of Ornithology*
Advisor: Dr. Sandra Vehrencamp.

EDUCATION

- 2001-2008: **Ph.D. in Organismal Biology and Ecology**, *The University of Montana, Division of Biological Sciences.* Major advisor: Dr. Douglas J. Emlen
- 1993-1998 **B.S. in Ecology Behavior and Evolution**, University of California, San Diego.

PEER REVIEWED PUBLICATIONS

- L. de Herder, I. Knot, **P.A. Trillo**, R.A. Page, J. Ellers, X.E. Bernal, W. Halfwerk. *In Prep.* Opposing selection pressures as a consequence of active choice in calling site location in túngara frog. *Behavioral Ecology and Sociobiology.*
- Trillo, P.A.**, Benson, C.S., Caldwell, M.S., Lam, T.L. *, Pickering, O.H. *, and D.M. Logue. 2019. The influence of signaling conspecific and heterospecific neighbors on eavesdropper pressure. *Frontiers in Ecology and Evolution*, 7, 292.
- Halfwerk, W., Blaas, M., Kramer, L., Hijner, N., **Trillo, P.A.**, Bernal, X.E., Page, R.A., Goutte, S., Ryan, M.J. and J. Ellers. 2018. Adaptive changes in sexual signalling in response to urbanization. *Nature Ecology & Evolution*, p.1.
- Trillo, P.A.**, Narvaez, A.J.*, Ron, S.R., and K.L. Hoke. 2017. Mating patterns and reproductive isolation in an Amazonian frog species complex. *PLoS ONE* 12(4): e0174743.
- Trillo, P.A.**, Bernal, X.E., Caldwell, M.S., Halfwerk, W.H., Wessel, M.O*., and R.A. Page. 2016. Collateral damage or shadow of safety?: The effects of signaling heterospecific neighbors on the risks of parasitism and predation. *Proceedings of the Royal Society of London: Series B* 283. No. 1831: 20160343

Trillo, P.A., Athanas, K.A*, Goldhill*, D.H, Hoke, K.L., and W.C. Funk. 2013. The influence of geographic heterogeneity in predation pressure on sexual signal divergence in an Amazonian frog species complex. *Journal of Evolutionary Biology* 26: 216-222.

Vencl, F. V., **Trillo, P.A.**, and R. Geeta. 2011. Functional interactions among tortoise beetle larval defenses reveal trait suites and escalation. *Behavioral Ecology and Sociobiology* 65:(2) 227-239.

Trillo, P.A., and S.L. Vehrencamp. 2005. Songtypes and their structural features are associated with specific contexts in the banded wren *Thryothorus pleurostictus*. *Animal Behaviour* 70: 921-935.

* Undergraduate co-author

AWARDS, FELLOWSHIPS AND GRANTS

- 2015– 2018 **National Science Foundation** – NSF EAGER grant: “The evolution of anti-predator defenses in tortoise beetles (Coleoptera: Chrysomelidae: Cassidinae)”. Co-PI with Dr. Caroline Chaboo, University of Nebraska and Dr. Ken Keefover-Ring, University of Wisconsin, Madison.
- 2015: **Gettysburg College** - Research and Professional Development Grant: “The influence of eavesdropping bats, *Trachops cirrhosus*, on novel call emergence” – *declined*
- 2015: **Gettysburg College** - Course Development International Grant: “Tropical Terrestrial Biology: From the Andes to the Amazon.
- 2011-2013: **Smithsonian Tropical Research Institute-Butler University** - Research Fellowship
- 2009-2011: **L’Oreal-UNESCO** - Postdoctoral Award. “Mechanisms of divergence in mating signals: determining the role of sexual and ecological selection in speciation”.
- 2007: **The University of Montana** - Bertha Morton Graduate Fellowship
- 2004, 2006: **Sigma XI** - Grants in Aid Award
- 2006: **Smithsonian Tropical Research Institute** - Short Term Fellowship: “Pre and post-copulatory processes in the tortoise beetle *Acromis sparsa*”
- 2005: **Smithsonian Institution** - Predoctoral Fellowship: “The Evolution of primary and secondary sexual characters in the tortoise beetle *Acromis sparsa*”
- 2005: **National Science Foundation** – NSF DDIG grant: “Interactions between primary and secondary sexual characters in the tortoise beetle *Acromis sparsa*”
- 2005: **Animal Behavior Society** - Student Research Grant
- 2005-2007: **University of Montana** - Graduate Student Travel Award
- 2004: **Smithsonian Tropical Research Institute** - Short Term Fellowship: “Alloparental Care In Tortoise Beetles: An Offspring Perspective”
- 2003-2005: **PEO International** - Peace Scholarship
- 2002-2004: **Organization of American States** - Graduate Student Fellowship (OEA-PRA)

TEACHING EXPERIENCE AND CURRICULUM DEVELOPMENT

Course development and teaching:

- 2018: Entomology, lecture and lab. Gettysburg College
- 2017-2019: Tropical Terrestrial Biology, lecture and field course in Manu National Park, Perú. Gettysburg College

- 2015-2016: Vertebrate Zoology, lecture and lab. Gettysburg College, Spring 2015, 2016
- 2014-2018: Animal Behavior, lecture and lab. Gettysburg College, Fall 2014-2017
- 2014: Entomology, lecture and lab. Butler University, Spring 2014
- 2013: Insect Behavior, lecture and lab. Butler University, Spring 2012, Fall 2013.
- 2012: Tropical Terrestrial Biology Field Course at STRI. Curriculum development, logistics and co-teaching with Drs. Travis Ryan and Phil Villani. Butler University, Summer 2012, 2014
- 2012: Tropical Terrestrial Ecology Seminar. Lecture. Butler University, Spring 2012, 2014
- 2005-2007: From the Andes to the Amazons: Tropical Ecology and Conservation Field Course in Peru. Coordinator and Instructor for students of The University of Montana *and* the Universidad Nacional Agraria, La Molina. Summer 2005, 2007.
- 2005-2007: Tropical Ecology and Conservation Seminar. Lecture. The University of Montana. Spring 2005-2007.
- 2005: Development of curriculum and implementation of the first mixed-nationality tropical biology course for US and Peruvian undergraduates: "From the Andes to the Amazons" Co-founder of the Tropical Ecology and Conservation Summer Courses at The University of Montana.
- 2005: Development of a Memorandum of Understanding between The University of Montana USA and Universidad Nacional Agraria, La Molina, Peru.

Workshops and guest lectures given:

- 2016-2019: Smithsonian Tropical Research Institute - Internship program: "Camino al Posgrado: Navegando los retos de los Estudiantes Latinoamericanos en USA". Lecture and panel
- 2014-2016: Smithsonian Tropical Research Institute - REU program: "International Collaborations in the Tropics". Lecture, Panel and Workshop
- 2016: Universidad de Panama: "Camino al Posgrado: Navegando los Retos de los Estudiantes Latinoamericanos en USA". Lecture and Panel
- 2012, 2016: "Field phonotaxis experiments with frog-eating bats and frog-biting flies: Two examples". Smithsonian Tropical Research Institute - IGERT course, and the University of Maryland, Animal Communication Graduate Student Course in Panama. Lecture,
- 2004-2006: Universidad de Panama, Curso Gigante de Biología de Campo: "Principios de Comportamiento Animal". Lecture and Workshop.
- 2002: The University of Montana, Graduate Course in Animal Communication: "Songbird Communication Systems". Lecture.
- 2001: The University of Montana, Undergraduate course in Animal Behavior: "Principles of Animal Communication". Lecture.
- 1998-1999: University of California, EAP Program: "Biological Statistics and Experimental Design". Lecture and Workshop.
- 1999: University of California, EAP Program: "Tropical Entomology". Lecture and workshop

Workshops attended:

- 2019: "Developing A Concept Inventory To Evaluate Student Learning In Undergraduate Animal Behavior Courses" Animal Behavior Society Conference, Chicago, Illinois.
- 2019: "Weaving the Future of Animal Behavior Symposium", Animal Behavior Society, Phoenix, Arizona.
- 2019: "Neurodiversity in the Classroom: Challenges and Opportunities", Gettysburg College.
- 2015: "Pedagogical Approaches to Intercultural Communication", Gettysburg College.
- 2015: "Encouraging Student Success through Effective mentoring and Engaged Teaching: Working With First-Generation and Underrepresented Groups", Gettysburg College.

Teaching Assistantships:

- 2005-2008: Entomology. Graduate Teaching Assistant. University of Montana
 2004-2006: Science of Life. Graduate Teaching Assistant. University of Montana
 2002: Insect Behavior. Graduate Teaching Assistant. University of Montana
 2002: Cell and Molecular Biology. Graduate Teaching Assistant. The University of Montana
 1998-1999: Tropical Biology, Costa Rica. Teaching Assistant. The University of California.
 1998 Animal Communication, Undergraduate teaching Assistant. UC, San Diego.
 1997 Biometry, Undergraduate teaching Assistant. UC, San Diego.

PRESENTATIONS AND INVITED LECTURES

- 2019: “Collateral Damage: Eavesdropper pressure in mixed-species frog choruses. Poster. Animal Behavior Society Conference, Chicago Illinois.
- 2018: “Questions for the next generation: Do We Lean In? Or Make a New Path for Women in Science?” *Invited Speaker*. Smithsonian Tropical Research Institute’s Women in Science Lecture Series, Panama.
- 2018: “Changing the Conversation: the Role of Eavesdroppers and Ecological Selection in the Evolution of Mating Signals” *Invited Speaker*. Franklin and Marshall College, Department of Biology, Pennsylvania.
- 2018: “Collateral Damage: Predation and Parasitism risk in Mixed-Species Frog Choruses” Poster. Gordon Research Conference in Predator-Prey Interactions. Ventura, California.
- 2017: “Women in Science: Lessons for the next generation” *Invited Speaker*. Symposium: “Mujeres herpetólogas en Latinoamérica: logros y desafíos” XI Congreso Latinoamericano de Herpetología. Quito, Ecuador.
- 2017: “Collateral damage or shadow of safety: The dynamics of predation and parasitism risk in mixed-species frog choruses” XI Congreso Latinoamericano de Herpetología. Quito, Ecuador.
- 2017: “Science across borders: Building balanced research collaborations in Latin America”. *Invited Speaker*. Latin American, Caribbean and Latino Studies Program. Gettysburg College, Pennsylvania.
- 2016: “Changing the Conversation: the Role of Eavesdroppers and Ecological Selection in the Evolution of Mating Signals”. Department of Biology, Gettysburg College, Pennsylvania.
- 2016: “Fitness effects of polyandry on the leaf beetle *Acromis sparsa*”. *Invited Speaker* International Congress of Entomology. Orlando, Florida.
- 2016: “Eavesdropper pressures on calling frogs: Geographic variation and the effects of heterospecific signalers on parasitism and predation” Animal Behavior Society Conference. Columbia, Missouri.
- 2014: “Multiple trait interactions and the role of ecological selection in the evolution of signal divergence: Tales from bats, frogs and beetles”. *Invited Speaker*. Gettysburg College, Department of Biology Biosphere Seminar. Gettysburg, Pennsylvania.
- 2013: “Eavesdropper pressures on calling frogs: Geographic variation and heterospecific risk transfer”. The Association for Tropical Biology and Conservation Conference. San Jose, Costa Rica.
- 2013: “Eavesdroppers and signal evolution: geographic heterogeneity in bat predation and heterospecific transfer of parasitism risk in tropical frogs”. Smithsonian Tropical Research Institution, Fellow Symposium. Panama.

- 2012: “La importancia relativa de la selección sexual pre y post-copulatoria en el escarabajo *Acromis sparsa*. **Invited Speaker**. Universidad de Panama, BioFeria. Panama.
- 2011: “The relative importance of pre- and post-copulatory sexual selection: Tales from a tortoise beetle” **Invited Speaker**. Butler University, Department of Biology.
- 2011: “From the Andes to the Amazon: Developing International Collaborations through Tropical Ecology and Conservation Courses in Perú” **Invited Speaker**. Butler University, Department of Biology
- 2008: “Large weapons or bigger testes?: the importance of primary and secondary sexual characters for the reproductive success of *Acromis sparsa*. Annual Conference of the Society for the Study of Evolution (SSE), Minneapolis, Minnesota.
- 2007: “The relative importance of primary and secondary sexual characters in the tortoise beetle *Acromis sparsa*” **Invited Speaker**. University of Lethbridge Department of Biology.
- 2007: “From the Andes to the Amazon: Developing International Collaborations through Tropical Ecology and Conservation Courses in Peru” **Invited Speaker**. University of Lethbridge, Department of Biology.
- 2007: “The evolution of primary and secondary sexual characters in the tortoise beetle *Acromis sparsa*”. Animal Behavior Society Conference. Burlington, Vermont.
- 2006: “Alloparental care in tortoise beetles: An offspring perspective”. 1st Latin American Animal Behavior Society Conference. Veracruz, Mexico. Student Award.
- 2006: “Interactions between Primary and Secondary Sexual Characters in *Acromis sparsa*”. Graduate student and Faculty Annual Conference. The University of Montana. Outstanding Presentation Student Award
- 2005: “Sexual selection in the Chrysomelid beetle *Acromis sparsa*”. **Invited Speaker**. The Association for Tropical Biology and Conservation Conference. Uberlandia, Brazil.

COMMUNITY AND PROFESIONAL INVOLVEMENT

Public Outreach:

- 2015-2019 Participant in seven different panels and public talks about Women in STEM
- 2017-2018 Consultant on a children’s book about insect maternal care - writer Heather L. Montgomery. Expected publication - 2018
- 2016: “Insects with parental care”. Invited lecture for 4H meeting, Gettysburg.
- 2014-2017: “Bio Night Hikes”: Bi-Annual nature walks with both public and Gettysburg College students at Michaux State Park and Strawberry Hill Nature Preserve
- 2013-2016: “Cool insects of the world!”- Includes a series of entomology lectures and workshops for kindergarten, first and second grade students in JCC, Indianapolis and Vida Charter School, Gettysburg.
- 2013: Science mentor and curriculum developer for the first iteration of the CHISPA!/SPARK! Program at the Smithsonian Tropical Research Institute.
- 2003-2005: Gave a series of Insect Behavior lectures to the PEO International Missoula Chapter members as part of a PEO International Fellowship.

Memberships: Entomological Society of America, Animal Behavior Society, Association for Women in Science.

Reviewer for: Evolution, Biological Journal of the Linnean Society, Animal Behavior Society, Ethology, Zookeys, European Journal of Entomology, Journal of Natural History, Amphibia-Reptilia, Global Ecology and Conservation, Scientific Reports-Nature.