

TRICIA L. RUBI

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EDUCATION

- University of Minnesota, PhD** Aug. 2010 - Dec. 2015
Department of Ecology, Evolution, and Behavior
- University of Colorado, BA *cum laude*** Sept. 2004 - Aug. 2008
Majors: Molecular, Cellular, and Developmental Biology
Ecology and Evolutionary Biology
Honors: Departmental Honors, MCDB
Neuroscience Certificate

RESEARCH EXPERIENCE

- University of Victoria** Dec. 2018 - present
Postdoctoral Researcher
Victoria, Canada
- Genetic evolution and regulation of opsins. Supervisor: John Taylor.
- University of Michigan** Sept. 2016 - Sept. 2018
NSF Postdoctoral Research Fellow in Biology
Ann Arbor, MI
- Behavioral, genetic, and epigenetic mechanisms of colonization and range expansion in deer mice (*Peromyscus spp.*), historic DNA and methylation analyses. Supervisor: Ben Dantzer.
- University of Minnesota** Aug. 2010 - Dec. 2015
PhD Student
St. Paul, MN
- Complex signals and perceiver behavior. Supervisor: David Stephens.
- University of Lethbridge** Jan. 2010 - July 2010
Field Researcher
Graaf Reinet, South Africa
- Behavioral observation of wild vervet monkeys. Supervisors: Peter Henzi, Louise Barrett.
- American Museum of Natural History** Oct. 2008 - Dec. 2009
Lab Manager
New York, NY
- Molecular systematics of scorpions and non-spider arachnids. Supervisor: Lorenzo Prendini.
- Colorado Division of Wildlife** May 2008 - Sept. 2008
Contracted Researcher
Boulder, CO
- Molecular systematics of cutthroat trout.
- University of Colorado** Sept. 2006 - May 2008
Laboratory Assistant
Boulder, CO
- Molecular systematics of cutthroat trout, historic DNA
 - Honors thesis: Identifying native cutthroat trout in the Colorado Rockies using historic museum specimens. Supervisor: Andrew Martin.

PUBLICATIONS AND PRESENTATIONS

Preprints

Rubi, T.L., Knowles, L.L., and Dantzer, B. Museum epigenomics: characterizing cytosine methylation in historic museum specimens. *Submitted* April 2019. bioRxiv doi: 10.1101/620583

Published manuscripts

Rubi, T.L., Clark, D.L., Keller, J.S., and Uetz, G.W. (2019). Courtship behavior and coloration influence conspicuousness of wolf spiders (*Schizocosa ocreata* (Hentz)) to avian predators. *Behavioural Processes* **162**: 215-220.

Polnaszek, T.J., **Rubi, T.L.**, and Stephens, D.W. (2017). When it's good to signal badness: using objective measures of discriminability to test the value of conspicuousness. *Animal Behavior*. **129**: 113-125.

Rubi, T.L. and Stephens, D.W. (2016). Why complex signals matter, sometimes. In Bee, M.A. and Miller, C.T., eds, *Psychological Mechanisms in Animal Communication*. Springer International Publishing, New York. pp. 119-135.

Rubi, T.L. and Stephens, D.W. (2016). Does multimodality *per se* improve receiver performance? An explicit comparison of multimodal versus unimodal complex signals in a learned signal-following task. *Behavioral Ecology and Sociobiology* **70** (3): 409-416. doi: 10.1007/s00265-016-2061-y

Rubi, T.L. and Stephens, D.W. (2016). Should receivers follow multiple signal components? An economic perspective. *Behavioral Ecology* **27** (1): 36-44. doi: 10.1093/beheco/arv121

Freeman, N.J., Pasternak, G.M., **Rubi, T.L.**, Barrett, L., and Henzi, S.P. (2012). Evidence for scent-marking in vervet monkeys? *Primates* **53** (3): 311-315.

Conference Presentations

Museum epigenomics: characterizing DNA methylation across a range expansion using natural history collections Jan 2019
Talk - Society for Integrative and Comparative Biology

Museum epigenomics: characterizing DNA methylation in historic specimens August 2018
Talk - International Society for Behavioural Ecology

Assessing epigenetic and genetic diversity across a range expansion using bisulfite ddRADseq June 2017
Talk - Evolution

Intermediate levels of environmental certainty favor complex signal use by receivers. June 2015
Talk - Animal Behavior Society Conference

Do multimodal signals improve receiver performance? August 2014
Talk - International Society for Behavioural Ecology Conference

Do multimodal signals improve receiver performance? August 2014
Talk - Animal Behavior Society Conference

Complex signals and receiver behavior August 2013
Talk - Animal Behavior Society Conference

Complex signals, reliability, and receiver behavior June 2012
Poster - Animal Behavior Society Conference

Reliability and receiver use of multicomponent signals July 2011
Poster - Animal Behavior Society Conference

Other Presentations

Why are signals complex? Talk - Miami University Biology Departmental Seminar	October 2016
Economic benefits of complex signals Talk - University of Michigan Integrative Behavioral Ecology Group	December 2015
Complex signals, reliability, and receiver behavior Talk - University of Minnesota Behavior Group Seminar	May 2012
Multicomponent signals: When and how do receivers use them? Talk - University of Minnesota Behavior Group Seminar	May 2011

TEACHING EXPERIENCE

Teaching Assistantships

Evolution University of Minnesota	Spring 2015 Fall 2014 Spring 2014
Introduction to Animal Behavior University of Minnesota (2 semesters as course administrator)	Fall 2013 Fall 2012 Spring 2012
Foundations of Biology University of Minnesota	Spring 2013
Primate Ecology and Social Behavior University of Minnesota	Fall 2011

Guest Lectures

"Social Behavior" Introduction to Animal Behavior University of Minnesota	Nov. 24, 2013
"Foraging Theory" Introduction to Animal Behavior University of Minnesota	Feb. 29, 2012
"Ecological Predictors of Social Structure" Primate Ecology and Social Behavior University of Minnesota	Oct. 24, 2011

GRANTS AND AWARDS

NSF Postdoctoral Research Fellowship in Biology	May 2016
UMN EEB Travel Award	Apr. 2015
ISBE Travel Award	Apr. 2014
UMN EEB Travel Award	Apr. 2014
UMN COGS Travel Award	May 2013
Animal Behavior Society Student Research Grant	May 2013
Richard and Judi Huempfer Ruffed Grouse Fellowship	Mar. 2013
Alexander and Lydia Anderson Fellowship	Feb. 2013

Carol H. and Wayne A. Pletcher Fellowship

Nov. 2012

Elmer C. Birney Fellowship

May 2012

UMN EEB Travel Award

May 2012

NSF GRFP Honorable Mention

Apr. 2012