

DR. HEATHER BIRD JACKSON

Research Assistant Professor · Ecology and Evolutionary Biology · University of Tennessee
Associate · Fish, Wildlife, and Conservation Biology · Colorado State University
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PROFESSIONAL APPOINTMENTS

Colorado State University (Fort Collins, CO) **2017-present**

Associate; Fish, Wildlife, and Conservation Biology Department

University of Tennessee (Knoxville, TN) **2013-present**

Research Assistant Professor; Department of Ecology and Evolutionary Biology

Carleton University (Ottawa, ON, Canada) **2010-2013**

Postdoctoral Fellow; Geomatics and Landscape Ecology Laboratory

EDUCATION

Louisiana State University (Baton Rouge, LA) **2010**

Ph.D., Biological Sciences – Advisor: Dr. Jim Cronin

Dissertation: Connections between individual dispersal behavior and the multi-scale distribution of a saproxylic beetle

Brigham Young University (Provo, UT) **2004**

M. S., Integrative Biology – Advisor: Dr. Larry St. Clair

Thesis: Distribution of chemistry and sexual fecundity in the lichnized-fungi, *Xanthoparmelia cumberlandia* and *Xanthoparmelia coloradoënsis* on Boulder Mountain, Aquarius Plateau, UT.

Brigham Young University (Provo, UT) **2001**

B.S., Biology Composite Teaching, Cum Laude

PUBLICATIONS

PEER-REVIEWED JOURNAL ARTICLES (PUBLISHED)

Armsworth, P. R., H. B. Jackson, S.-H. Cho, M. Clark, J. E. Fargione, G. D. Iacona, T. Kim, E. R.

Larson, T. Minney, N. A. Sutton. *Accepted*. Factoring economic costs into conservation planning may not improve agreement over priorities for protection. *Nature Communications*.

Miguet, P., **H. B. Jackson**, N. D. Jackson, A. E. Martin, L. Fahrig. 2015. What determines the spatial extent of landscape effects on species? *Landscape Ecology*. 31: 1177-1194. [DOI: 10.1007/s10980-015-0314-1](https://doi.org/10.1007/s10980-015-0314-1)

Jackson, H. B. and L. Fahrig. 2015. Are ecologists conducting research at the optimal scale? *Global Ecology and Biogeography*. 24:52-63. [DOI: 10.1111/geb.12233](https://doi.org/10.1111/geb.12233)

Jackson, H. B., A. Zeccarias, and J. T. Cronin. 2013. Mechanisms driving the density-area relationship in a saproxylic beetle. *Oecologia*. 173:1237-1247. [DOI:10.1007/s00442-013-2697-5](https://doi.org/10.1007/s00442-013-2697-5)

Jackson, H. B. and L. Fahrig. 2012. What size is a biologically relevant landscape? *Landscape Ecology*. 27: 929-941. [DOI:10.1007/s10980-012-9757-9](https://doi.org/10.1007/s10980-012-9757-9)

- Jackson, H. B.**, K. Baum, J. T. Cronin. 2012. From logs to landscapes: determining the scale of ecological processes affecting the incidence of a saproxylic beetle. *Ecological Entomology*. 37: 233-243. [DOI:10.1111/j.1365-2311.2012.01355.x](https://doi.org/10.1111/j.1365-2311.2012.01355.x)
- Jackson, H. B.**, K. Baum, T. Robert, J. T. Cronin. 2009. Habitat-specific movement and edge-mediated behavior of a saproxylic insect, *Odontotaenius disjunctus* (Coleoptera: Passalidae). *Environmental Entomology* 38(5): 1411-1422. [DOI: 10.1603/022.038.0509](https://doi.org/10.1603/022.038.0509)
- Haynes, K., F. Dilleuth, B. Anderson, A. Hakes, **H. Jackson**, E. Jackson, J. Cronin. 2007. Landscape context outweighs local habitat quality in its effects on herbivore dispersal and distribution. *Oecologia* 151:431-441. [DOI:10.1007/s00442-006-0600-3](https://doi.org/10.1007/s00442-006-0600-3)
- Jackson, H.B.**, L.L. St. Clair, D. Eggett. 2006. Size is not a reliable measure of sexual fecundity in two species of lichenized fungi. *The Bryologist* 109 (2):157-165. [DOI:10.1639/0007-2745\(2006\)109\[157:SINARM\]2.0.CO;2](https://doi.org/10.1639/0007-2745(2006)109[157:SINARM]2.0.CO;2)
- Jackson, H.B.**, S.D. Leavitt, T. Krebs, and L.L. St. Clair. 2005. Lichen flora of the eastern Mojave Desert: Blackrock Arizona, Mojave County, Arizona, USA. *Evansia* 22 (1): 30-38.

BOOK CHAPTERS AND OTHER PUBLICATIONS

- Jackson, H. B.** and L. Fahrig. 2013. Habitat Loss and Fragmentation. In S. Levin, editor. *Encyclopedia of Biodiversity*, 2nd Edition. Academic Press. [DOI:10.1016/B978-0-12-384719-5.00399-3](https://doi.org/10.1016/B978-0-12-384719-5.00399-3)
- Jackson, H.B.** 2005. What good are they? The case for lichens. *Borrowed Earth* 4:109-127.

PRESENTATIONS AT PROFESSIONAL MEETINGS

ORAL PRESENTATIONS

- Armsworth, P.R., **H.B. Jackson**, G. Iacona, E. Larson, T. Kim, N. Sutton, M.J. Hughes, D. Hayes, and S. Cho. 2015. Terrestrial protected area design through the coupled natural and human systems lens. Ecological Society of America meeting, Baltimore, MD, USA.
- Jackson, H.B.** and L. Fahrig. 2013. Are landscape ecologists conducting research at the right scale? The Wildlife Society meeting, Milwaukee, WI, USA.
- Jackson, H.B.** and L. Fahrig. 2011. What size is a biologically relevant landscape? International Association for Landscape Ecology meeting, Portland, OR, USA.
- Jackson, H.B.** and J. Cronin. 2009. Spatial ecology of a dead-wood inhabiting beetle. Ecological Society of America meeting, Albuquerque, NM, USA.
- Jackson, H.B.**, A. Zeccarias, J. T. Cronin. 2008. The relative influence of conspecific and habitat cues on habitat selection in a passalid beetle. Ecological Society of America meeting, Milwaukee, WI, USA.
- Jackson, H.B.** and J. Cronin. 2007. Horned passalus (*Odontotaenius disjunctus*) distribution at multiple scales. Entomological Society of America meeting, San Diego, CA, USA.
- Jackson, H.B.** and L. St. Clair. 2004. Can size be used as an easy measure of sexual fecundity in *Xanthoparmelia cumberlandia*? Botanical Society of America meeting, Snow Bird, UT, USA.

POSTERS

- Jackson, H.B.**, K. Baum, T. Robert, and J. Cronin. 2006. Contrary to expectations, beetle movements are more linear when in suitable habitat. Ecological Society of America meeting, Memphis, TN, USA.

Jackson, H.B. and L. St. Clair. 2005. Geographic parthenogenesis in a lichenized-fungus: implications for measuring fitness. Society for the Study of Evolution meeting, University of Alaska, Fairbanks, AK, USA.

EDUCATION AND OUTREACH

COLLEGE-LEVEL COURSES DESIGNED AND TAUGHT

Adaptive Fish and Wildlife Management (Online). Instructor. Graduate level. (Colorado State University, Spring 2018)

Landscape Ecology (Online). Instructor. Senior and graduate level. (University of Tennessee, Spring 2017 and Spring 2018)

Current Topics in Climate Change Biology (Online). Instructor. Senior level. (University of Tennessee, Fall 2017 and Fall 2016)

Conservation Biology. Instructor. Senior level. (University of Tennessee, Spring 2015 and Spring 2016)

Core Ecology. Co-instructor, Landscape Ecology section. Graduate level. (University of Tennessee, Spring 2014)

Current Topics in Climate Change Biology. Co-instructor. Senior level. (University of Tennessee, Fall 2015)

Principles of Ecology. Co-instructor. Senior level. (Louisiana State University, Summer 2009)

COLLEGE-LEVEL GUEST INSTRUCTION

Landscape Ecology. Guest instructor. Effects of Landscape Structure of Species Interactions. Senior level. (Carleton University, October 14, 2011)

Landscape Ecology. Guest instructor. Effects of Landscape Structure on Animal Movement. Senior level. (Carleton University, February 15, 2011)

SECONDARY-LEVEL COURSES DESIGNED AND TAUGHT

Eighth Grade Integrated Science. Instructor. Ages 13-14. (Wasatch Junior High, Granite School District, 2002-2003)

Sixth Grade Integrated Science. Instructor. Ages 11-12. (Sunset Middle School, St. Vrain Valley School District, 2001-2002)

Ninth Grade Earth Systems. Intern. Ages 14-15. (Orem Junior High, Alpine School District, 2000-2001)

EDUCATIONAL OUTREACH FOR SECONDARY AND PRIMARY AGES

Knoxville Zoo Storytime. Guest instructor. Ages 0-5. (Knoxville Zoo, February 21, 2014)

Carleton University Enrichment Mini-Course. Coordinator. Ages 13-15. (Carleton University, one week in June 2011)

Louisiana Museum of Natural Science Special Saturdays. Supervisor. Ages 6-12. (Louisiana State University, Fall 2009)

Louisiana Museum of Natural Science Special Saturdays. Coordinator. Ages 6-12. (Louisiana State University, Fall 2008- Spring 2009)

Girl Scouts Fall Festival. Guest instructor. Ages 5-17. (Girls Scouts Louisiana East Chapter, November 7, 2009)

Louisiana Science & Engineering Fair. Judge. Ages 12-18. (Louisiana State University, 2005, 2006, 2007, 2008, 2009)

Zippity Zoo Fest. Educational vendor. Ages 0-18. (Baton Rouge Zoo. April 2009)

Sally Ride Science Festival. Educational vendor. Ages 6-12. (Louisiana State University, November 15, 2008)

Louisiana Sea Grant College Ocean Commotion. Educational vendor. Ages 6-12. (Louisiana State University, November 13, 2008)

Louisiana State University Museum of Natural Science Special Saturday. Guest instructor. Ages 6-12. (Louisiana State University, February 2008)

Ninth Grade Biology. Guest instructor. Ages 14-15. (Louisiana State University Laboratory School, 2004)

Cub Scout Meeting. Guest speaker. Ages 7-10. (Cub Scout chapter in Ogden, Utah, May 5, 2004)

Boy Scout Merit Badge PowWow. Guest Instructor. Ages 10-16. (Brigham Young University, October 2003).

GRANTS AND AWARDS

2010 Louisiana State University BioGrads Award

2008 Sigma Xi Grant in Aid of Research

2008 Theodore Roosevelt Memorial Grant

2006 Sigma Xi Grant in Aid of Research

2006 Louisiana State University BioGrads Award

2005 Louisiana State University BioGrads Award

2004-2008 Board of Regents Graduate Fellowship, Louisiana State University

1996-2000 National Merit Scholarship, Brigham Young University

1996-2000 Robert C. Byrd Honors Scholarship

PROFESSIONAL SERVICE

MENTORING

Kiersti McMillan. 2013. Carleton University. Undergraduate honors thesis.

Thesis: Do Body Size and Fecundity of Ground Beetles (Coleoptera: Carabidae) Predict the Size of a Landscape? Carleton University, Ottawa, ON, Canada.

Phuong-Anh Truong. 2009. Louisiana State University. Undergraduate independent research course.

Amanuel Zeccarias. 2008. Louisiana State University. Undergraduate independent research course.

Peer-reviewed publication: Jackson, H. B., **A. Zeccarias**, and J. T. Cronin. 2013. Mechanisms driving the density-area relationship in a saproxylic beetle. *Oecologia*. [doi:10.1007/s00442-013-2697-5](https://doi.org/10.1007/s00442-013-2697-5)

Russell "Tripp" Axtell III. 2008. Glenwood Springs Middle School. Independent research for secondary students.

Charlotte Gates (now Chun). 2006. Louisiana State University. Undergraduate independent research course.

Chantal Miguel. 2006. Louisiana State University. Undergraduate independent research course.

Tristan Robert. 2006. Louisiana State University. Undergraduate independent research course.

Peer-reviewed publication: Jackson, H. B., K. Baum, T. Robert, J. T. Cronin. 2009. Habitat-specific movement and edge-mediated behavior of a saproxylic insect, *Odontotaenius disjunctus* (Coleoptera: Passalidae). *Environmental Entomology* 38(5): 1411-1422.

Thomas J Webb. 2005. Louisiana State University. Undergraduate independent research course.

FUNDRAISING

Louisiana State University BioGrads. Fundraising co-chair. 2007.

EDITING

Current Landscape Ecology Reports. Section editor. 2015-2016.

PEER REVIEW

American Naturalist; Conservation Biology; Ecography; Ecological Complexity; Ecology; Ecological Entomology; Ecological Modelling; Ecology Letters; Ecosphere; Insecta Mundi; Journal of Animal Ecology; Journal of Applied Ecology; Landscape Ecology; PLOS One.

REFERENCES

Name	Relationship	Employer	Title	Contact Information
Paul Armsworth	Current research supervisor	University of Tennessee	Associate Professor	p.armsworth@utk.edu 865-974-9748
Lenore Fahrig	Postdoc supervisor	Carleton University	Professor	lenore_fahrig@carleton.ca 613 520-2600
James Cronin	PhD supervisor	Louisiana State University	Professor	jcronin@lsu.edu 225 578-7218
Larry St. Clair	MS supervisor	Brigham Young University	Professor	larry_stclair@byu.edu 801 422-6211
Sophie Warny	Education outreach supervisor	Louisiana State University	Associate Professor	swarny@lsu.edu 225 578-5089