

Steven Patrick Brady

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EDUCATION	2013	Ph.D.	Yale University
	2007	M.E.Sc.	Yale University
	2001	B.A.	Saint Michael's College
PROFESSIONAL EXPERIENCE	2017 – present	Assistant Professor Southern Connecticut State University	
	2016 – 2017	Environmental Scientist Water and Land Resources Division, King County, Seattle, WA	
	2014 – 2016	Postdoctoral Associate & Lecturer University of Vermont	
	2013 – 2014	Postdoctoral Researcher NOAA Northeast Fisheries Science Center	
	2002 – 2003	Environmental Health Volunteer, Kenya. U. S. Peace Corps	
FELLOWSHIPS AND HONORS	2014 – 2015	Visiting Scholar, Biology Department, Dartmouth College	
	2007 – 2010	Leopold Schepp Scholar, Leopold Schepp Foundation	
	2007	Hixon Fellow, Hixon Center for Urban Ecology, Yale University	
	2006	John A. MacLean Scholar, Yale University	
	2005	Leonard Carpenter Scholar, Yale University	
	2001	Class Achievement Award, Saint Michael's College	
	2000	Class of 1989 Scholarship, Saint Michael's College	
	1999 – 2000	McCarthy Arts Scholarship, Saint Michael's College	
1997 – 2000	Connecticut Resident Scholarship, Saint Michael's College		
PUBLICATIONS	†Brady, S. P., E. †Monosson, C. W. Matson, and J. W. Bickham. 2017. Evolutionary toxicology: Toward a unified understanding of life's response to toxic chemicals. <i>Evolutionary Applications</i> . †Authors contributed equally to this work		
	Brady, S. P. 2017. Early exposure does not explain putative maladaptation in road-adjacent populations. <i>Oecologia</i> .		

- Brady, S. P.** and J. L. Richardson. 2017. Road ecology: shifting gears toward evolutionary perspectives. *Frontiers in Ecology and the Environment*.
- Cover feature
 - Featured in *Quartz*, *Swiss Public Radio*, *NPR*, *Sierra Magazine*, *Mongabay*, *PLOS Blogs*
 - Top 5% *Altmetric Attention Score*
- Brady, S. P.**, J. L. Richardson, and B. K. Kunz. 2017. Incorporating evolutionary insights to improve ecotoxicology for freshwater species. *Evolutionary Applications*.
- Brady, S. P.** and D. Goedert. 2017. Positive sire effects and adaptive genotype by environment interaction occur despite pattern of local maladaptation in roadside populations of an amphibian. *Copeia*.
- Hall, E. M., **S. P. Brady**, N. Mattheus, R. Earley, M. Diamond, and E. J. Crespi. 2017. Physiological consequences of exposure to high-salinity roadside ponds on wood frog larvae and adults. *Biological Conservation*.
- Richardson, J. L., **S. P. Brady**, I. J. Wang, and S. F. Spear. 2016. Navigating the pitfalls and promise of landscape genetics. *Molecular Ecology*.
- Langen, T.A, K. M. Andrews, **S. P. Brady**, N. E. Karraker, and D. J. Smith. 2015. Road effects on habitat quality for small animals. In (K.M Andrews, P. Nanjappa, S. P.D. Riley eds.) *Roads and Ecological Infrastructure: Concepts and Applications for Small Animals*. Johns Hopkins Press.
- Brady, S. P.** 2013. Microgeographic maladaptation and deme depression in a fragmented landscape. *PeerJ*.
- Featured in *Unnatural Selection*, 'Featured article' on Peerj.com
- Brady, S. P.** 2012. Road to evolution? Local adaptation to road adjacency in an amphibian (*Ambystoma maculatum*). *Scientific Reports*. 2: 235.
- open access: <http://www.nature.com/articles/srep00235>
 - Featured in *Nature Asia-Pacific Research Highlights*, *The New York Times*, *Aeon* (<https://goo.gl/wgkFaH>), *United Press International*, *Science Daily*, *Science Line* (<http://goo.gl/jCxAGM>), *Environment Yale* (story by Carl Zimmer (<http://goo.gl/LLx862>)), *This View of Life*, *Unnatural Selection*, *New Haven Register*, *Southern Rhode Island Newspapers*, *Waterbury Republican American* (cover story), *The Hartford Courant*, *AmphibiaWeb* (featured 'Species of the Week'), *Froglog*, and others.

***MANUSCRIPTS
IN REVIEW AND
PREPARATION**

Brady, S. P., F. Zamora-Camacho, D. Goedert, M. Mar Comas, and R. G. Calsbeek. In prep. Adult fecundity and locomotor performance contrast larval fitness components in roadside populations of the wood frog.

Brady, S. P., A. P. Hendry, et al[†]. In prep. Maladaptation reconsidered.

[†]*Product of a 25-person international working.*

Brady, S. P. and D. Goedert. In prep. Heritability of wood frog fitness components in response to road-proximity.

Brady, S. P. and B. Williams. In prep. A meta-analysis of road salt toxicity on aquatic taxa.

E. Crispo, Barrett, R. D. H., A. Paccard, G. Martin, **S. P. Brady** J. N. Dastis, L. Astorg, J. Lane; L. Chapman; D. J. Fraser, C. Ballas, M. Close and A. M. Derry. In prep. Conservation through the lens of maladaptation.

**Manuscripts in review and in preparation are available upon request*

GRANTS

2018	Southern CT State Research Award, \$2,500
2018	Southern CT State GSGA Award (supports Research Assistantship position for MS student), \$15,000
2018	Southern CT State Faculty Development Grant to host Software Carpentry workshop, \$4,000
2014 – 2016	Canadian Institute of Ecology and Evolution. Maladaptation working group. \$12,548
2014 – 2016	Quebec Centre for Biodiversity Science. Maladaptation working group, \$9,622.
2012	Yale Student Assembly Conference Travel Award, \$400
2010 – 2012	National Science Foundation Doctoral Dissertation Improvement Grant: Road mediated divergence in an amphibian, \$15,000
2010	Sigma Xi Grants-in-Aid of Research, \$800
2010	Hixon Center for Urban Ecology, Yale University, \$5,000
2009 – 2012	Doctoral Travel Fund, Yale University, \$1,600
2009	Dissertation Grant, Yale Institute for Biospheric Studies, \$5,000
2009	Lefor Grant, Connecticut Association of Wetland Scientists, \$1,000
2009 – 2011	Mianus River Gorge Preserve, \$21,000
2008	Conchologists of America Academic Grant, \$1,500
2008	The Malacological Society of London Research Grant, \$1,900
2008	American Museum of Natural History \$1,000
2007	Center for Field Ecology, Yale Inst. for Biospheric Studies, \$1,500
2006	Environmental Studies Scholarship, Annie’s Homegrown, \$1,000

2006 Federated Garden Club of Connecticut Grant, **\$4,000**
 2006 Global Internship, Yale University, **\$2,500**
 2005 – 2008 Carpenter/Sperry/Mellon Grant, **\$3,000**

TEACHING

Conservation Biology (undergraduate)
 Ecology (undergraduate with lab)
 Herpetology (graduate)
 Introduction to Biology (undergraduate)
 Terrestrial Wildlife (undergraduate with lab)
 Wildlife Behavior (undergraduate)

RESEARCH STUDENTS

2017 – Mary Mattheis (M.S.)
 2017 – Lauren Frymus (B.S.)
 2017 – Faruk Senturk (B.S.)

GRADUATE STUDENT COMMITTEES

2017 – 2018 Christopher Wisniewski (M.S.)
 2017 – Gabriella DiPreta (M.S.)

INVITED SEMINARS

2018 Roads, runoff, and (mal)adaptation. U.S. Fish and Wildlife Service.
 2017 Local (mal)adaptation in roaded landscapes. SUNY Binghamton
 2017 Roads, runoff, and evolution. Providence College
 2016 Local adaptation and maladaptation from roads. Clarkson University
 2014 Road to evolution or highway to hell. Syracuse University
 2013 Contemporary evolution in fragmented habitats. Woods Hole Oceanographic Institution
 2013 Eco-evolutionary consequences of roads and runoff. Univ. of Maine
 2012 Adaptation and maladaptation in a roaded landscape. McGill University
 2011 A salted salamander, assaulted frog: Tales from the road. Yale Forests Summer Seminar Series
 2010 Amphibians falling by the wayside: The perils of living in roadside wetlands. Mianus River Gorge Preserve
 2008 Life on the edge: Amphibians in roadside pools. Yale Forests Summer Seminar Series
 2006 Research methodology. Evolutions (after school program). Yale Peabody Museum of Natural History

SYMPOSIA & WORKING GROUPS

2018 Co-organizer & speaker, symposium on maladaptation. Featured symposium at American Society of Naturalist standalone meeting.
 2018 Co-organizer, symposium on maladaptation. Evolution Meeting.
 2017 Invited presenter, Canadian Society for Ecology and Evolution Annual Meeting symposium on synthesis in the 21st century.
 2016 Invited speaker, symposium on contemporary evolution at Joint Meeting

of Ichthyologists and Herpetologists.

- 2015 – Co-organizer/leader, CIEE and QCBS working group on maladaptation
- 2015 Invited presenter, Ecological Society of America (ESA) Annual Meeting organized session on road ecology.
- 2012 Invited plenary speaker, U.S. Environmental Protection Agency workshop on major ion toxicity
- 2012 Organizer, ESA Annual Meeting organized session on contemporary evolution in human-modified environments
- 2010 Invited presenter, symposium on roads at Joint Meeting of Ichthyologists and Herpetologists
- 2010 Invited presenter, organized session on backcountry roads at ESA meeting
- 2010 Invited presenter, Connecticut Conference on Natural Resources

CONTRIBUTED PRESENTATIONS

- 2018 K. H. MacNeale, K. H., A. James, **S. P. Brady**, and L. Llewellyn. Trends in stream conditions using the Benthic Index of Biotic Integrity (BIBI). Salish Sea Conference.
- 2017 **Brady, S. P.** and K. H. MacNeale. Two decades of stream health trends in the Puget Sound region. 1. Canadian Society for Ecology and Evolution Annual Meeting, 2. Evolution Meeting.
- 2016 **Brady, S. P.** and K. H. MacNeale. Drivers of stream macroinvertebrate diversity in the Puget Sound region. Society for Freshwater Scientist Pacific Northwest Chapter Annual Meeting.
- 2014 Hall, E. M., **Brady, S. P.**, and Crespi, E. J. Mapping the susceptibility landscape: the crossroads of physiology and disease dynamics. Society for Integrative and Comparative Biology Annual Meeting.
- 2014 Cholewiak, D., **Brady, S. P.**, Corkeron, P., Davis, G., Risch, D., and Van Parijs, S. Toward acoustically derived population estimates. Acoustical Society of America.
- 2014 **Brady, S. P.** Adaptive and maladaptive responses of roadside amphibians. Genomes to Biomes.
- 2011 **Brady S. P.** Population and evolutionary consequences of roads on two amphibians. International Conference on Ecology and Transportation.
- 2010 **Brady S. P.** Road to perdition: Impacts of road adjacency and runoff on wetland amphibians. Northeastern Partners in Amphibian and Reptile Conservation Annual Meeting.
- 2010 **Brady S. P.** The consequences of road proximity and runoff on wetland amphibians. Student Conference on Conservation Science. American Museum of Natural History Center for Biodiversity and Conservation: Annual Symposium.
- 2010 **Brady S. P.** Amphibians in roadside wetlands. Doctoral Conference. Yale University School of Forestry and Environmental Studies.

- 2009 **Brady S. P.** The eco-evolutionary effects of road adjacency and road salt on the wood frog (*Rana sylvatica*). ESA Annual Meeting.
- 2009 Bushey J. B., **Brady S. P.**, Acevedo C., and Skelly D. K. Influence of roadway proximity on metal uptake and bioavailability in a wetland dwelling amphibian. Society of Environmental Toxicology and Chemistry (SETAC) North America Meeting.
- OUTREACH**
- 2016 Project leader/mentor, University of Vermont REU program
- 2016 Vernal pool guide, Williamstown Elem. School, Williamstown, VT
- 2015 – 2016 Eco-walk guide, Union Elementary School, Montpelier, VT
- 2015 Eco-volunteer, All Together Now Preschool, East Montpelier, VT.
- 2014 Undergraduate research mentor, Calsbeek Lab, Dartmouth College
- 2013 Mentor, Summer Mentorship Program, NOAA NEFSC.
- 2009 – 2010 Mentor, Mianus River Gorge high school mentorship program
- 2007 Lecturer and field instructor, Yale Peabody Museum
- PROFESSIONAL SERVICE**
- 2017 – Southern CT State: Graduate Admissions Committee; Herpetology Collection Curator
- 2017 – 2018 Co-organizer, special issue on ‘maladaptation’ for *The American Naturalist*
- 2017 – 2018 Guest Associate Editor and organizer of special issue on ‘maladaptation’ for *Evolutionary Applications*
- 2016 – 2017 Guest Associate Editor and organizer of special issue on ‘evolutionary toxicology’ for *Evolutionary Applications*
- 2014 Session presider, Genomes to Biomes
- 2012 Organizer, ESA oral session on contemporary evolution in human-modified environments
- 2011 Reviewer of undergraduate training module on amphibian declines. American Museum of Natural History Center for Biodiversity and Conservation: Network of Conservation Educators and Practitioners
- 2011 Invited panelist, Student Conference on Conservation Science – New York (SCCS-NY) workshop on work-family balance
- 2010 – 2012 Co-organizer, SCCS-NY. American Museum of Natural History
- 2010 Guest Editor, *Northeastern Naturalist*
- 2010 NEPARC working groups on roads
- 2009 – 10, 12 Session presider, ESA annual meetings
- 2008 – 2011 Scientist Advisor to Board of Trustees, Mianus River Gorge Preserve, Bedford, NY
- 2008 Dynamic website database development, SWARMS project. <http://www.swarms.org>

Peer reviewer for:

Biological Conservation, Biological Journal of the Linnean Society, Canadian Journal of Zoology, Ecography, Ecology, Ecosphere, Evolutionary Applications, Frontiers in Ecology and the Environment, Herpetologica, Irish Research Council Laureate Award, Journal of Applied Ecology, Journal of Herpetology, Molecular Ecology, National Science Foundation, Northeastern Naturalist, Oecologia, PeerJ

PROFESSIONAL MEMBERSHIPS American Assoc. for the Advancement of Science, Ecological Society of America, NY Academy of Sciences, Sigma Xi (The Scientific Research Society)

COLLABORATORS Jonathan Richardson (Providence College), Ryan Calsbeek (Dartmouth College), Erica Crespi (Washington State U), Andrew Hendry (McGill U), Emily Monosson (UMass), Tom Langen (Clarkson U), Bethany Kunz (USGS)

SOFTWARE AMHarvest: An open-source R based package for wildlife harvest analysis. Katz, J., S. P. Brady, and T. M. Donovan. Includes occupancy models, virtual population analysis, and simulation capacity.

COMPUTING *Analytical and database:* R (advanced), MATLAB (proficient), MySQL (advanced)
Spatial: GIS (advanced), ERDAS IMAGINE (proficient)
Bioinformatics: FASTA (proficient), Trinity (proficient), Mesquite (advanced), MrBayes (proficient)

TRAININGS & CERTIFICATIONS Equity and Social Justice (King County), Pacific Salmonids (Northwest Environmental Training Center), Swiftwater Rescue (King County), Facilitating Effective Meetings (King County), Social Marketing in Conservation (King County), Safe Boater Certificate, Wilderness First Responder

OTHER EXPERIENCE Website Developer, Outdoor Gear Exchange, Burlington, VT 2003 – 2004
Rock & Ice Climbing Instructor, Acadia National Park, Maine 2000 – 2003

REFERENCES *Dissertation advisor*
David Skelly, Professor of Ecology, Yale School of Forestry & Environmental Studies. Director, Peabody Museum of Natural History, Yale University. Phone: (203) 432-3603; email: david.skelly@yale.edu

Dartmouth visiting scholar advisor
Ryan Calsbeek, Associate Professor, Department of Biological Sciences, Dartmouth College. Phone: (603) 646-9917; email: ryan.g.calsbeek@dartmouth.edu

University of Vermont postdoc advisor

Therese Donovan, Assistant Unit Leader VT Cooperative Fish & Wildlife Research Unit / Research Associate Professor, University of Vermont. Phone: (802) 656-2516; email: therese.donovan@uvm.edu

Mentor / colleague

Andrew Hendry, Professor, Redpath Museum & Department of Biology McGill University. (514) 398-4086; email: andrew.hendry@mcgill.ca