

## KRISTA J. PATRIQUIN, PHD

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### EDUCATION

**Ph.D.** Department of Biology, Dalhousie University, Halifax, Nova Scotia. 2004 – 2012  
Thesis: The Causes and Consequences of Fission-Fusion Dynamics in Female Northern Long-eared Bats, *Myotis septentrionalis*.

Supervisors: Dr. M. Leonard and Dr. H.G. Broders

**M.Sc.** University of Calgary, Calgary, AB. 1998 –2001

Thesis: Ecology of a Bat Community in Harvested Boreal Forest in Northwestern Alberta.

Supervisor: Dr. R.M.R. Barclay

**B.Sc. Honours.** Mount Allison University, Sackville, NB. 1992 – 1997.

Thesis: Do Female Three-spined Sticklebacks (*Gasterosteus aculeatus*) Copy the Mate Choice of Others?

Supervisor: Dr. J.-G. Godin

### RESEARCH INTERESTS

Generally, my research interests include behavioural ecology and conservation biology. Behavioural ecology allows me to integrate a wide array of biological concepts to explore how current animal populations are shaped by the interplay among mating behaviour, foraging behaviour, social behaviour, functional ecology, and genetic relatedness. Ultimately, I can apply this holistic view to better understand the evolution of behaviour and to conserve animal populations and their habitat. In particular, I explore these relationships in bats using a combination of field observations, experimental studies, genetic analyses, and quantitative analyses. Below is a summary of my research and professional experience. A more detailed research statement is available upon request.

### RESEARCH & PROFESSIONAL EXPERIENCE

2015 – present	Post-doctoral Fellow	Biology, University of Toronto Mississauga, Ontario
2014 – 2015	Research Scientist	Dillon Consulting Limited, Ontario
Fall 2012	Wildlife Biologist	Dillon Consulting Limited, Nova Scotia
2004 – 2012	PhD	Biology, Dalhousie University, Nova Scotia
Fall 2003 & 2004	Wildlife Biologist	AMEC Earth & Environmental Ltd., Alberta
Fall 2003 & 2004	Wildlife Biologist	Golder Associates Ltd., Alberta
Summer 2003	Field Coordinator	Biology, University of Calgary, Alberta
Spring 2003	Consultant	Alberta Research Council, Alberta

2001 – 2002	Level 2 Wildlife Biologist	Golder Associates Ltd., Alberta
1999 – 2001	MSc	Biology, University of Calgary, Alberta
1997 – 1998	Research Associate	Biology, Mount Allison University, New Brunswick
1992 – 1997	BSc Honours	Biology, Mount Allison University, New Brunswick

#### **FELLOWSHIPS, SCHOLARSHIPS, AND GRANTS (in CAD)**

2015 – 2017	Natural Science and Engineering Research Council, Post-doctoral fellow	45,000/year
2007	Nova Scotia Department of Natural Resources Species at Risk Conservation Fund	5,000
2007	Nova Scotia Department of Natural Resources Habitat Conservation Fund	4,000
2004 – 2006	Natural Science and Engineering Research Council, CGS D	35,000/year
2000	University of Calgary Thesis Research Grant	1,000
1999-2001	Natural Science and Engineering Research Council, PGS A	17,500/year
1999	Alberta Conservation Association Challenge Grant in Biodiversity	10,300
1999	Bat Conservation International Scholar	3,700
1999	Canadian Circumpolar Institute Circumpolar/ Boreal Arctic Research Grant	3,000

#### **ACCOLADES**

- **2009/10 Biology TA Award. Dalhousie University.** Awarded for my exemplary work as a Teaching Assistant in Biology 3062 (Behavioural Ecology).
- **Best Student Talk.** North American Symposium on Bat Research, Portland, Oregon, November 4-7, 2009
- **Poster Presentation Award.** Atlantic Universities Undergraduate Biological Conference, Truro, Nova Scotia, March 7-9, 1997.

#### **PUBLICATIONS**

##### **Refereed Research Papers**

**Patriquin, KJ,** F Palstra, ML Leonard, HG Broders. 2013. Female northern myotis, *Myotis septentrionalis*, that roost together are related. Behavioral Ecology. 24: 949-954. doi:10.1093/beheco/art012

**Patriquin, KJ,** ML Leonard, HG Broders and CJ Garroway. 2010. Do social networks of female northern long-eared bats vary with reproductive period and age? Behavioral Ecology and Sociobiology 64: 899-913. doi 10.1007/s00265-010-0905-4

- Patriquin, KJ.** 2004. Red bat (*Lasiurus borealis*) captured in northeastern Alberta. Northwestern Naturalist 85: 28-30
- Patriquin, KJ** and RMR Barclay. 2003. Foraging by bats in cleared, thinned and unharvested boreal forest. Journal of Applied Ecology 40:646-657
- Patriquin, KJ**, LJ Hogberg, BJ Chruszcz and RMR Barclay. 2003. The influence of habitat structure on the ability to detect ultrasound using bat detectors. Wildlife Society Bulletin 31:475-481
- Hogberg, LJ, **KJ Patriquin** and RMR Barclay. 2002. Use by bats of patches of residual trees in logged areas of the boreal forest. American Midland Naturalist 148: 282-288
- Patriquin-Meldrum, KJ** and J-G J Godin. 1997. Do female three-spined sticklebacks copy the mate choice of others? American Naturalist 151: 570-577

### Technical Reports

- Dillon Consulting Ltd. 2015. Predictors of Bat Fatality and Activity at the Talbot Wind Farm. Submitted to Enbridge
- Golder Associates Ltd. 2002. Suncor Firebag In-situ Project Supplemental Wildlife Surveys 2001. Submitted to Suncor Energy Inc.
- Golder Associates. 2001. Christina Lake Thermal Project, Phase 1 Wildlife Monitoring Program 2001. Submitted to PanCanadian Petroleum Limited

### RESEARCH SEMINARS AND CONFERENCE PRESENTATIONS

#### Invited Seminars

- Smithsonian Tropical Institute, Panama, February 2015
- Biology Department, Queen's University, January 2015
- Biology Department, Mount Saint Vincent University, February 2013
- Department of Biology, Dalhousie University, March 2007
- Biology Department, Mount Allison University, November 2005
- Department of Biology, Dalhousie University, November 2004

#### Oral & Poster Presentations

2015	Atwood Colloquium in Ecology & Evolution (University of Toronto)	Institutional	Talk
2014	North American Symposium on Bat Research (NASBR)	International	Talk
2012	1 <sup>st</sup> Joint Congress on Evolutionary Biology	International	Talk
2010	Patrick Lett Symposium (Dalhousie University)	Institutional	Talk
2009	NASBR – <b>Best Student Talk</b>	International	Talk
	Northeastern Biology Graduate Student Conference (NBGSC)	Regional	Talk

2008	International Society of Behavioral Ecology	International	Talk
2007	International Ethological Conference	International	Talk
	Acadian Forests Conference	Regional	Talk
	NBGSC	Regional	Talk
2005	Ecological Society of America	International	Talk
	NASBR	International	Poster
	NBGSC	Regional	Talk
2004	Canadian Society of Zoologists Annual Conference	National	Talk
2003	NASBR	International	Poster
	Alberta Chapter Wildlife Society Annual Conference	Regional	Talk
2002	Alberta Chapter Wildlife Society Annual Conference	Regional	Talk
2001	NASBR	International	Talk
	Alberta Chapter Wildlife Society Annual Conference	Regional	Talk
	Alberta Conservation Association Biodiversity Conference	Regional	Poster
2000	NASBR	International	Talk
	NASBR	International	Poster
	Prairie Universities Biological Symposium	Regional	Talk
1999	NASBR	International	Talk
1997	Atlantic Universities Undergraduate Biological Conference – <b>Poster Award</b>	Regional	Poster

## PEER REVIEW

I have reviewed manuscripts submitted to the following journals:

- Animal Behaviour
- Behaviour
- Behavioral Ecology and Sociobiology
- Bioacoustics
- Canadian Journal of Zoology
- Ecology
- Journal of Mammalogy
- Methods in Ecology and Evolution
- PLoS ONE
- The Northwest Naturalist

## TEACHING & STUDENT SUCCESS

I am a life-long learner who endeavours to inspire the same passion for learning in others. Below is a summary of my teaching experience. A more detailed overview of my experience along with evidence of my teaching effectiveness are available in my teaching dossier.

## EXPERIENCE

### Instructor

- 2014 Introductory Biology II (1<sup>st</sup> year course), Mount Saint Vincent University, Nova Scotia
- 2013 Introductory Biology I (1<sup>st</sup> year course), Mount Saint Vincent University, Nova Scotia
- 2013 Principles of Biology Part II (1<sup>st</sup> year course), Dalhousie University, Nova Scotia
- 2011 Behavioural Ecology (3<sup>rd</sup> year course), Dalhousie University, Nova Scotia
- 2011 Behavioural Ecology & Sociobiology (3<sup>rd</sup> year course), Mount Saint Vincent University, Nova Scotia

### Teaching Assistant

- |             |                                                                                                                   |                                            |
|-------------|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 2004 – 2013 | Introductory Biology<br>Field Methods in Animal Behaviour<br>Field Methods in Fish Ecology<br>Behavioural Ecology | Biology, Dalhousie University, Nova Scotia |
| 1998 – 2001 | Teaching Assistant:<br>Introductory Biology<br>Introductory Ecology & Evolution<br>Animal Behaviour               | Biology, University of Calgary, Alberta    |

### Student Success

- |             |                                                                                 |                                                              |
|-------------|---------------------------------------------------------------------------------|--------------------------------------------------------------|
| Spring 2014 | Project Coordinator:<br>International Student Support Strategy<br>Working Group | Student Academic Services, Dalhousie University, Nova Scotia |
| 2007 – 2014 | Writing Tutor & Advisor:<br>Writing Centre                                      | Student Academic Services, Dalhousie University, Nova Scotia |
| 2012 – 2013 | Curriculum Mapping                                                              | Biology, Dalhousie University, Nova Scotia                   |

## TEACHING SKILLS DEVELOPMENT

### **University Learning and Teaching Certificate, Dalhousie University, Halifax, NS.**

Completed a full term course (CNLT 5000, Learning and Teaching in Higher Education) that provided theory and hands-on experience for creating more enriching and engaging learning experiences at the university level. Also completed 20 hours of teaching workshops.

**Dalhousie Conference on University Teaching and Learning, Dalhousie University, Halifax, NS. 2006-2010.** Attended the conference each year and participated in a variety of workshops pertaining to teaching and assessment tools.

## **SERVICE AND ADMINISTRATION**

### **University Level**

- 2012 Lett Symposium Judge, Department of Biology, Dalhousie University
- 2006 – 2009 Dalhousie University Biology Ad-hoc Environmental Committee
- 2006 – 2007 Dalhousie University Biology Organization of Graduate Students (BOGS),  
President
- 2005 – 2006 Dalhousie University Advisory Committee on Faculty of Graduate Studies  
Scholarship Allocations, Student Representative
- 2005 – 2006 Dalhousie University Biology Organization of Graduate Students (BOGS),  
Friday Informal Seminar Hour Coordinator

### **Conference Organization**

- 2009 Canadian Society for Ecology and Evolution (CSEE) Organizing  
Committee, Volunteer
- 2007 International Ethological Conference (IEC) Organizing Committee,  
Volunteer
- 2006 – 2007 Northeast Biological Graduate Student Conference (NBGSC) Organizing  
Committee, Co-chair & Treasurer

### **Conservation**

- 2001 – 2003 Western Canada Bat Working Group (WCBWG), Newsletter editor/  
contributing member
- 2000 – 2003 Alberta Bat Action Team (ABAT)
- 2000 – 2003 Alberta Chapter Wildlife Society

### **Community Outreach**

- 1998 - present I have developed and delivered more than 20 1-hour interactive  
presentations for schools (elementary, junior high, and high school), parks,  
science centres, and nature centres. Through these, I dispel myths about bats  
and introduce audiences to scientific research by educating them about bat  
biology and conservation.
- 2009 Science Fair Judge, St. Agnes Junior High, Halifax, Nova Scotia
- 2008 Public Education Volunteer, BioBlitz, Halifax, Nova Scotia
- 2006 – 2008 Ecology Action Centre (EAC) Biomass Issues Subcommittee, Standing Tall  
Subcommittee, Halifax, Nova Scotia