

## JOANNA COLEMAN

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### EDUCATION

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- 2010 PhD, Urban Wildlife Ecology **University of Calgary**  
Dissertation: The Effects of Urbanization on Prairie Bats
- 2002 MSc, Renewable Resources, distinction **McGill University**  
Thesis: Ecology of the Sharp-shinned Hawk (*Accipiter striatus*) in Southern Québec
- 1999 BSc (Agriculture), great distinction **McGill University**  
Major: Environmental Biology

### PROFESSIONAL APPOINTMENTS

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- 2012- **Senior Lecturer**  
National University of Singapore
- 2011-2012 (fall-winter) **Assistant Professor**  
University of Calgary in Qatar
- 2011 (summer) **Sessional Instructor**  
University of Calgary in Qatar
- 2011 (winter), 2012 (spring) **Sessional Instructor**  
University of Calgary
- 2003-2005 **Activities Coordinator**  
Armand Frappier Museum – Biosciences Interpretation Centre

### PUBLICATIONS

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#### BOOKS

Schowalter T, Hofman E, Schmelzeisen R, Edwards MA, Lausen C, Engley L & J Coleman. 2013. Mammals of the Drumheller Region. Royal Alberta Museum, Edmonton, Alberta.

#### JOURNAL ARTICLES

Coleman JL, Ascher JS, Bickford D... & RL Carrasco (2019) The top 100 conservation research questions in Southeast Asia. *Biol Conserv* **234**, 211-220.

Coleman JL & RMR Barclay (2013) Prey availability and the foraging activity of Prairie Bats in relation to urbanization. *J Mamm* **94**, 1111-1122.

Coleman JL & RMR Barclay (2012) Urbanization and the abundance and diversity of Prairie bats. *Urban Ecosys* **15**, 87-102.

Coleman JL & RMR Barclay (2011) Influence of urbanization on demography of little brown bats (*Myotis lucifugus*) in the Prairies of North America. *PLoS ONE* **6**, e20483.

Coleman J (2009) A strange tale of taillessness in a vespertilionid bat. *Acta Chiropter* **11**, 212-215.

Coleman JL, Bird DM & EA Jacobs (2002) Nest habitat use and productivity of sharp-shinned hawks nesting in an urban area. *Wilson Bull* **114**, 467-473.

Coleman, JL & DM Bird (2003) Urban sharp-shinned hawk productivity in Québec. *Bird Trends* **9**, 13-16.

## IN PROGRESS

- Chan A, Aziz SA, Clare EL & **JL Coleman**. Diet of *Cynopterus brachyotis* offers insights into potential ecosystem services by fruit bats in urban tropical landscapes. In revision (*Urban Ecosys*).
- Chua J & **JL Coleman**. Effects of transboundary haze on bats at a water body. In prep (*Environ Res Lett*).
- Goh FN, Carrasco Laceran AK, Li SFY & **JL Coleman**. Historical and current exposure of mammals to heavy metals in Singapore. In prep (*Chemosphere*).
- Lee K, Yao X, Lum WHD & **JL Coleman**. Ecological impacts of the LED-streetlight retrofit in Singapore. In prep (*Ecol Appl*).
- Moretto L, **Coleman JL**, Davy C, Fenton MB, Korine C & K Patriquin, Eds. What Makes an Urban Bat? Bat Biology, Ecology and Interactions with Humans in Urban Environments. This book will include 15 chapters, written by a total of 21 authors (including the editors). In prep, est. publication in late 2021/early 2022 (*Springer*).
- Ng ST & **JL Coleman**. The *kiasu* environmentalist – an oxymoron? In prep (*Env Behav*).
- Straka TM, MacDonald EA, **Coleman JL** & T Kingston. Human dimensions of bat conservation - a review. In prep (*J Ethnobiol*) – invited contribution.

## CONFERENCE PRESENTATIONS

- Chan AA, Abdul-Aziz S, Clare EL & **Coleman JL**. Fruit bats in Singapore – what have they done for us lately? XVII International Bat Research Conference, 28 Jul-1 Aug 2019, Phuket, Thailand.
- Yip CYX & **JL Coleman**. Human knowledge and perceptions of bats – pilot study in Singapore. XVII International Bat Research Conference, 28 Jul-1 Aug 2019, Phuket, Thailand.
- Coleman JL**. Abundance, diversity, foraging activity, body condition and reproduction of urban and non-urban Prairie bats – is the city a bat population sink? 39th North American Symposium on Bat Research, 4-7 Nov 2009, Portland, OR, USA.
- Coleman JL**. The urban ecology of little brown bats (*Myotis lucifugus*) in Calgary, Alberta. 94th Annual Meeting of the Ecological Society of America, 2-7 Aug, 2009, Albuquerque, NM, USA.
- Coleman JL**. Effects of urbanization on Prairie bats in SW Alberta. 38th North American Symposium on Bat Research (NASBR), 22-25 Oct 2008, Scranton, PA, USA.
- Coleman JL**. The effects of urbanization on Prairie bats. XIV International Bat Research Conference and 37th NASBR, 19-23 Aug 2007, Mérida, Yucatan, Mexico.
- Coleman JL**. Prairie bats: city slickers or country bumpkins? Annual Meeting and Conference of the Northwest Section and Alberta Chapter of the Wildlife Society, 18-21 Mar 2007, Canmore, AB, Canada.
- Coleman JL**. Urban ecology of the sharp-shinned hawk. Prairie Universities Biological Symposium, 23-25 Feb 2005, Calgary, AB, Canada.
- Coleman JL**, Bird, DM & EA Jacobs. Nesting ecology of the sharp-shinned hawk (*Accipiter striatus*) in southern Quebec. Annual Meeting of the Raptor Research Foundation, 8-12 Nov 2000, Jonesboro, AK, USA.
- Coleman JL**, Bird, DM & EA Jacobs. Habitat selection by sharp-shinned hawks (*Accipiter striatus*) in southern Quebec. Annual Meeting of the Raptor Research Foundation, 3-7 Nov 1999, La Paz, Baja California Sur, Mexico.

## INVITED PRESENTATIONS

From Jungle to Concrete Jungle (speaker). Looker Education Group. 15 Jan 2020

No wellness without Nature (speaker). Singapore American School Wellness Summit. 24 Aug 2019.

The environmental crisis (speaker). NUS Students Against Violation of the Earth. 29 Jan 2019

Nature deficit disorder (speaker & panelist). Biophilia and Nature Education Symposium. 19 Jan 2019

UN Women Singapore special forum on Women Tackling Climate Change (panelist). 16 Sept 2015

## GRANTS

YEAR	DESCRIPTION	VALUE
2017	Wildlife Reserves Singapore Conservation Fund (WRSCF) – Diet and behaviour of dog-faced fruit bats ( <i>Cynopterus brachyotis</i> ) in Singapore (SG)	7 180 SGD
2016	AVA tender: AVA000/(P)027(15) – CRA with University of Queensland – Population biology and management of stray dogs in Singapore	412 345 SGD
2015	MOE Academic Research Fund (ACRF) Tier 1 – A comprehensive survey of bats and their ecosystem roles in Singapore; Co-investigator & grant author; NOTE: grant cancelled when PI resigned	163 367 SGD
2007	Bat Conservation International Student Scholarship	5 000 USD
2000	Quebec Society for the Protection of Birds, Alfred B Kelly Memorial Grant	3 000 CAD

## AWARDS AND HONOURS

YEAR	DESCRIPTION	VALUE
2007-2008	Izaak Walton Killam Memorial Scholarship	25 000 CAD/yr
2005-2006	Natural Sciences and Engineering Research Council of Canada (NSERC) Post Graduate Scholarship (PGS) D	21 000 CAD/yr
2005, 2006	University of Calgary Dean's Research Excellence Award	3 000 CAD
2005	University of Calgary Dean's Entrance Scholarship	5 000 CAD
2000-2001	NSERC PGS A	17 300 CAD/yr
2000-2001	Fonds pour la Formation de Chercheurs et l'Aide à la Recherche - scholarship (declined – cannot hold concurrently with NSERC)	15 000 CAD/yr
2000	John Williamson Frederick Peacock Memorial Scholarship	5 000 CAD
2000	Walter M. Stewart Postgraduate Scholarship in Agriculture	4 000 CAD
1988	Mary Emily Brown Award	250 CAD
1997, 1998	J. W. McConnell Award	1 000 CAD
1997, 1998	Eliza M. Jones Award	400 CAD
1997	MacDonald medal for top academic standing in program	not monetary

## NEWS COVERAGE

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**NUS NEWS** – 31/10/2017 – “Unmasking the bat” <http://news.nus.edu.sg/highlights/unmasking-bat>

**MacLean’s Magazine** – 14/06/2011 – “The trouble with city bats”  
<http://www.macleans.ca/society/technology/the-trouble-with-city-bats/>

**ScienceDaily** – 06/06/2011 – “Big city holds empty promise for bats”  
<http://www.sciencedaily.com/releases/2011/05/110531135706.htm>

**Calgary Herald** – 07/07/2006 – “U of C studies gone batty”

**CBC NEWS (TV)** – 06/07/2006 – with Cam MacIntosh

## TEACHING EXPERIENCE

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### National University of Singapore (NUS), Environmental Studies and Biological Sciences

COURSE CODE AND NAME	ROLE	SALIENT DETAILS
ENV1101 Environmental Studies: an Interdisciplinary Overview	Coordinator since 2016  Co-lecturer since 2015	<ul style="list-style-type: none"> <li>Performed full course revamp               <ul style="list-style-type: none"> <li>New guiding theme of sustainability</li> <li>All new lectures, activities, assessments</li> </ul> </li> <li>15 % improvement in feedback scores</li> <li>Created course <a href="#">website</a></li> </ul>
ENV3101 Environmental Challenges: Asian Case Studies I	Co-lecturer since 2014	Two lectures and one tutorial
ENV3102 Environmental Challenges: Asian Case Studies II	Coordinator since 2013	<ul style="list-style-type: none"> <li>Mandatory, year 3 field course (Philippines)</li> <li>Designed course from A to Z</li> <li>Responsible for: teaching, logistics, admin tasks and risk assessment</li> <li>Created course <a href="#">website</a></li> </ul>
ENV3202 Summer Internships	Coordinator since 2014  Academic supervisor since 2013	<ul style="list-style-type: none"> <li>Internship for year 2 &amp; 3 students, in the environmental field (corporate, gov’t, NGO)</li> <li>Established partnerships with industry</li> <li>Created resumé improvement session</li> <li>Academically supervised the interns</li> <li>Created course <a href="#">website</a></li> </ul>
ENV4101 Environmental Management in Singapore	Co-ordinator since 2019  Co-lecturer since 2018	<ul style="list-style-type: none"> <li>Performed full course revamp               <ul style="list-style-type: none"> <li>New format (weekly panel discussions)</li> <li>All new assessments</li> </ul> </li> <li>Clear links to SDGs</li> <li>240 % improvement in feedback scores</li> </ul>
LSM4265 Urban Ecology	Coordinator since 2015  Co-lecturer since 2014	<ul style="list-style-type: none"> <li>Revamped course nearly in full               <ul style="list-style-type: none"> <li>Interdisciplinary, primary-literature based</li> <li>New activities and assessments</li> </ul> </li> <li>22 % improvement in feedback scores</li> <li>Created course <a href="#">blog</a></li> </ul>

### University of Calgary in Qatar, Faculty of Nursing

COURSE CODE AND NAME	ROLE	SALIENT DETAILS
ZOOL 269 Introduction to Human Anatomy and Physiology	Asst Prof, 2011-2012	<ul style="list-style-type: none"><li>• Created all-new lectures and assessments</li><li>• Implemented active learning, e.g., game-based</li><li>• Students from nine countries (five continents)</li></ul>
BIOL 231 Introduction to Cellular Biology	Instructor, summer 2011	<ul style="list-style-type: none"><li>• Created all-new lectures and assessments</li><li>• Students from three countries (two continents)</li></ul>

### University of Calgary, Department of Biological Sciences

BIOL 305 The Human Organism / L'Organisme Humain II	Instructor, 2010-11 and 2011-12	<ul style="list-style-type: none"><li>• Created all-new lectures and assessments</li><li>• Taught in French (2011) and English (2012)</li></ul>
BIOL 451 Conservation Biology	Teaching Asst (TA), 2008-09 and 2009-10	<ul style="list-style-type: none"><li>• Led weekly tutorial discussions</li><li>• Graded all assessments</li></ul>
BIOL 313 Introduction to Ecology & Evolution	TA, 2008-09	<ul style="list-style-type: none"><li>• Led one weekly lab section</li><li>• Graded all lab assessments</li></ul>
BIOL233 Introduction to Organismal Biology	TA, 2006-07 to 2008-09	<ul style="list-style-type: none"><li>• Led one weekly lab section</li><li>• Graded all lab assessments</li></ul>
ECOL 429 Ecology of Individuals	TA, 2005-06 and 2006-07	<ul style="list-style-type: none"><li>• Led one weekly lab section</li><li>• Graded all lab assessments</li><li>• Made successful changes to lab activities</li></ul>

### OTHER FORMAL TEACHING EXPERIENCE

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#### Armand Frappier Museum, Biosciences Interpretation Centre

##### Activities Coordinator

2003 to 2005

- Coordinated group visits (for all school levels and the public)
- Coordinated summer science camps for 9- to 15-year-olds (themes: microbiology, biotechnology, environment & biodiversity)
- Developed pedagogical materials and approaches
- Hired, trained and managed 30 part- and full-time museum guides
- Handled budgets, logistics and procurement
- Guided group and individual visits as needed

**RESEARCH SUPERVISION (one-year undergraduate honours projects, *unless otherwise indicated*)**

YEAR	TITLE	NAME
2019-20	Greening DBS – the departmental water footprint	QIU Jiahui
	Greening DBS – the departmental carbon footprint	TAN Yan Hui Shaina
	Disease ecology of potentially zoonotic rat lungworm in the giant African land snail in Singapore	Johnathan WONG
2018-19	Population genetic connectivity and structure of street dogs in Singapore (SG) – <i>Postdoc</i>	Dr Émilie Sidonie Cros
	A review and recommendation of sea turtle conservation measures for SG – <i>Master (Env Mgmt)</i>	TAN Kelly Siang Ting
	Effects of low-aircraft flyovers on diurnal animals in SG	CHEONG Hui Ping
	Exposure of mammals to heavy metals in SG	GOH Fang Ni
	Effects of drones on bats	LIM Kai Ning
	Kiasuism as a predictor of conscious consumption behaviours among Singaporean youths	NG Shu Tian
2017-18	Diet and behaviour of dog-faced fruit bats in SG	Angela CHAN An Qi
	Perceptions and knowledge of bats by Singaporeans	Cheryl YIP Yi Xiu
	People who feed SG's street dogs – who and why?	PANG Yong Ting Roanna
	The switch to LED lighting – impacts on bats in SG	LEE Ee Meng Kenneth
	The switch to LED lighting – impacts on insects in SG	Xinyi YAO
2016-17	Impact of domestic cat predation on wildlife in SG	Joan LIM Hui Mian
	Knowledge of SG's wildlife and inclination to conserve native biodiversity among NUS students	LOO Nicolette
	An experimental study of the effects of artificial light on behaviour of bats at a pond	Michelle GAN Wan Jie
	Effect of childhood outdoor experience on environmental behaviour in SG	LOH Jia Xin
	Factors influencing behavioural responses of free-ranging domestic dogs in SG to human approach	LUM Wen Hao Deon
2015-16	An experimental study of the effects of haze on behaviour of bats at a pond	CHUA Li En Jacqueline
	Effects of low-aircraft flyovers on biological soundscapes	CHO Koi Hong Jermain
	Characteristics of artificial roosts used by bats in SG	CHAI Jia Yi Zoe
	Impacts of traffic noise on the dawn chorus in SG	KOH Wilson
2014-15	Social perspectives on urban beekeeping in SG	WONG Zi Jin
	Diversity of birds in relation to age and structure of urban park connectors in SG	Prhabakaran s/o Ramanathan
	Occurrence of seed dispersers in different forest types and fragments for successful native stock propagation	TAN Kelly Siang Ting

## RESEARCH EXPERIENCE (IN ADDITION TO GRADUATE WORK)

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YEAR	DESCRIPTION	NATURE
2016-2019	Supervise three Research Assistants and one Research Fellow (RF) to investigate free-ranging dogs in SG	PI
2013-2014	Occasional Research Consultant to Ian Mendenhall, postdoc RF at Duke-NUS Graduate Medical School, for study of bats as reservoirs of emerging zoonoses	Volunteer
2011	Field Assistant on bat survey in Waterton Lakes National Park, commissioned by Parks Canada	Paid
2011	Consultant – quantification of bat activity (as indicated by acoustic data) at wind turbines, for TransAlta, Alberta	Paid
2009	Field Assistant on bat survey in Little Missouri National Grassland, commissioned by US Forest Service	Paid
2008	Collected data and fur samples from small mammals and bats for stable isotope analysis by Erin Fraser, PhD candidate, University of Western Ontario	Volunteer
2005	Assisted with fall monitoring of Prairie rattlesnakes aggregating at hibernacula for Alberta Sustainable Resource and Development	Volunteer
2004	McGill Bird Observatory Co-coordinator: helped establish and run banding station to monitor migratory northern saw-whet owls ( <i>Aegolius acadicus</i> )	Volunteer

## SERVICE TO PROFESSION AND/OR TO UNIVERSITY

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**FACULTY OF SCIENCE PEER REVIEWER**, academic year 2019-20

### REFEREE FOR JOURNALS

Biological Conservation, Canadian Journal of Zoology, Global Ecology & Conservation, Journal of Applied Ecology, Journal of Mammalogy, Journal of Urban Ecology, Mammal Research, PLoS ONE, Population Ecology, Wildlife Research

### NUS STUDY TRIPS FOR ENGAGEMENT AND ENRICHMENT (STEER) – EXPERIENTIAL EDUCATION

Academic Lead for 2016 trip to Costa Rica

Invited speaker for workshop on outdoor experiential education for student-led STEER trips

### CONFERENCES

**Co-organiser** of the 2017 ASEAN Universities Conservation Biology Workshop; collaborative research effort involving 53 co-authors from academia, NGOs & government in 17 nations to identify the top research questions that would most advance the goals of biodiversity conservation and sustainable development in SE Asia, leading to paper in *Biol. Conserv.*

Member of the Scientific Committee and Organising Committee (**Sustainability Coordinator**), Joint meetings of the Asian Chapters of the Association for Tropical Biology and Conservation and the Society for Conservation Biology, 29 June-2 July 2016.

**Co-organiser** of the Prairie Universities Biological Symposium, 2006.

## **COMMUNITY SERVICE / OUTREACH**

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Ongoing	Public education on bats and leading public bat surveys (talks and guided acoustic monitoring & mist netting)	Wildlife Reserves Singapore
2005-2010	Public education on bats for schools, Alberta Parks and general public (talks and guided mist netting evenings)	Robert Barclay's lab, University of Calgary
1999-2005	Public education on raptors for schools, charitable organisations, media (radio, tv) and general public	Avian Science and Conservation Centre
1997-1998	Establishment and operation of the Wildlife Hotline (advice on urban animals, media appearances, public talks)	Dept of Natural Resource Sciences, McGill University

## **TRAINING / CERTIFICATION**

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Wilderness First Aid Responder	2017
PADI Open Water Diver	2013
University Teaching Certificate (University of Calgary)	2010
Instructional Skills Workshop (University of Calgary)	2009
Workplace Hazardous Materials Information System	2005
Société des musées québécois – Recevoir son monde	2003
Raptor rehabilitation – Faculté de médecine vétérinaire, Université de Montréal	2001

## **OTHER SKILLS**

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### **LANGUAGES**

English, French (perfectly bilingual)  
Spanish (nearly fluent)  
German (conversational)  
Italian (conversational)  
Cebuano / Visayan (beginner)

### **COMPUTER SKILLS**

Microsoft Office: Access, Excel, PowerPoint, Word (very proficient in all)  
Statistics: JMP, PAST, SAS, SPSS, Systat, Species Richness and Diversity IV; learning R  
Adobe: Acrobat Pro, Lightroom, Photoshop (proficient in all); Illustrator (intermediate)  
E-learning: Archipelago, Breeze, ExamSoft, Panopto  
Web development: WordPress  
Acoustics: Analook (proficient), Batsound (learning), Soundscope (learning)