JOANNA L COLEMAN

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EDUCATION

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

PROFESSIONAL APPOINTMENTS

2021-	Assistant Professor Queens College at the City University of New York (CUNY-QC)
2012-2021	Senior Lecturer National University of Singapore (NUS)
2011-2012 (fall-winter)	Assistant Professor University of Calgary in Qatar (UCQ)
2011 (summer)	Sessional Instructor UCQ
2011 (winter), 2012 (spring)	Sessional Instructor University of Calgary (UofC)
2003-2005	Activities Coordinator Armand Frappier Museum – Biosciences Interpretation Centre

PUBLICATIONS

BOOKS & BOOK CHAPTERS

Moretto L, **Coleman JL**, Davy C, Fenton MB, Korine C & K Patriquin, Eds (2023) Urban Bats: Biology, Ecology, and Human Dimensions. Springer.

Ancillotto L, **Coleman JL**, Gibellini AM & D Russo (2023) Human Dimensions of Bats in the City. *In* Urban Bats: Biology, Ecology, and Human Dimensions (Moretto et al, Eds). Springer.

Russo, D, **Coleman JL**, Ancillotto L & C Korine (2023) Ecosystem Services by Bats in Urban Areas. *In* Urban Bats: Biology, Ecology, and Human Dimensions (Moretto et al, Eds). Springer.

Warburton EM, Swerdfeger E & **JL Coleman** (2023) Urban Bats and Their Parasites. *In* Urban Bats: Biology, Ecology, and Human Dimensions (Moretto et al, Eds). Springer.

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

Hahs AK, Fournier B, ... **Coleman JL**,... Kotze DJ & M Moretti (2023) Urbanisation generates multiple trait syndromes for terrestrial taxa worldwide. *Nature Comm*, In press.

Coleman JL, Lum DWH & XY Yao (2023) From sodium-vapour to LEDs – how an outdoor lighting retrofit affects insects in Singapore. *JUE* **9**, juad009.

Leong R, Lebarbenchon C, Zhang J & **JL Coleman** (2022) Q-methodology to understand stakeholder discourses on bat conservation and management in view of the COVID-19 pandemic. *Front Conserv Sci* **3**, 1003925.

Straka TM, **Coleman J**, MacDonald EA & T Kingston (2021) Human dimensions of bat conservation – 10 recommendations to improve and diversify studies of human-bat interactions. *Biol Conserv* **262**, 109304.

Lee KEM, Lum WHD & **JL Coleman** (2021) Ecological impacts of the LED-streetlight retrofit on insectivorous bats in Singapore. *PLoS ONE* **16**, e0247900.

Chan A, Aziz SA, Clare EL & **JL Coleman** (2020) Diet, ecological role and potential ecosystem services of the fruit bat, *Cynopterus brachyotis*, in a tropical city. *Urban Ecosys* **24**, 251-263.

Coleman JL, Ascher JS,.... & 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 REVISION

Coleman JL, Randhawa N,... & CR Shepherd. Dying for décor: Quantifying the online, ornamental trade in a distinctive bat species, *Kerivoula picta*. *Ecol Econ*.

Straka TM, **Coleman JL**,... & MH Jacobs. Beyond biophobia: positive appraisal of bats among German residents during the COVID-19 pandemic - with consequences for conservation intentions. *People and Nature*.

IN PREPARATION

Chua J & JL Coleman. Effects of transboundary haze on bats. Environ Res Lett.

Coleman JL, Barno S, Bird DM & K Elliot. Impacts of unoccupied aerial vehicles on urban bats. TBD.

Coleman JL, Barno S, Clare EL & JJ Dennehy. Are drones a source of insect mortality? TBD.

Leong R, Lebarbenchon C,... & JL Coleman. The non-effect of COVID-19 on bat-related attitudes. TBD.

Coleman JL, Macdonald EA,... & T Kingston. The adoption of field hygiene practices by bat researchers conducting fieldwork – a Theory-of-Planned-Behaviour study. *Lancet Planet Health*.

Goh FN, Carrasco Laceran AK, Li SFY & **JL Coleman**. Historical and current exposure of mammals to heavy metals in Singapore. *Chemosphere*.

Leong R, Jacobs MH,... & **JL Coleman**. The non-effect of COVID-19 on bat-related attitudes in Singapore. *TBD*.

Leong R, Lebarbenchon D, Richards DR & **JL Coleman**. Human dimensions of bat conservation in view of the COVID-19 pandemic – an urban perspective. *Anim Conserv.*

Wong, JWH, Kwak M, Mendenhall I, Meier R & **JL Coleman**. Emergence of the pathogenic rat lungworm *Angiostrongylus malaysiensis* (Nematoda: Angiostrongylidae) in Singapore. *Acta Tropica*.

CONFERENCE PRESENTATIONS, SYMPOSIA & WORKSHOPS

Coleman J, Macdonald EA & T Straka (Symposium Co-Organisers). How does Human Dimensions Research Advance Bat Conservation? 19th International Bat Research Conference (IBRC)/50th Annual North American Symposium on Bat Research (NASBR), 7-12 Aug 2022, Austin, Texas, USA.

Straka T & **J Coleman** (Workshop Co-Organisers). Making Bat Conservation Work in a Human-Dominated World. 19th IBRC/50th Annual NASBR, 7-12 Aug 2022, Austin, Texas, USA.

Lee K, Lum L & **J Coleman**. From sodium to LED lights – impacts on bats and insects in Singapore. 19th IBRC/50th Annual NASBR, 7-12 Aug 2022, Austin, Texas, USA.

Chan AA, Abdul-Aziz S, Clare EL & **Coleman JL**. Fruit bats in Singapore – what have they done for us lately? 18th IBRC, 28 Jul-1 Aug 2019, Phuket, Thailand.

Yip CYX & **JL Coleman**. Human knowledge and perceptions of bats – pilot study in Singapore. 18th IBRC, 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 NASBR, 4-7 Nov 2009, Portland, Oregon, 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, New Mexico, USA.

Coleman JL. Effects of urbanization on Prairie bats in SW Alberta. 38th NASBR, 22-25 Oct 2008, Scranton, Pennsylvania, USA.

Coleman JL. The effects of urbanization on Prairie bats. 14th IBRC/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, Alberta, Canada.

Coleman JL. Urban ecology of the sharp-shinned hawk. Prairie Universities Biological Symposium, 23-25 Feb 2005, Calgary, Alberta, Canada.

Coleman JL, Bird, DM & EA Jacobs. Nesting ecology of the sharp-shinned hawk (*Accipiter striatus*) in southern Quebec. Raptor Research Foundation (RRF) Annual Meeting, 8-12 Nov 2000, Jonesboro, Arkansas, USA.

Coleman JL, Bird, DM & EA Jacobs. Habitat selection by sharp-shinned hawks (*Accipiter striatus*) in southern Quebec. RRF Annual Meeting, 3-7 Nov 1999, La Paz, Baja California Sur, Mexico.

INVITED PRESENTATIONS

Bat conservation. Seatuck's Bats & Brews Benefit. October 2022. URL

Bat conservation. Where are we and where are we going? City College of New York Biology colloquium. September 2022.

Urban ecology in context. Comparing New York City and Singapore. Fordham University. April 2022.

Bat conservation. Where are we and where are we going? CUNY-QC Biology colloquium. April 2022.

The solid waste problem. NYPIRG. November 2021.

Royal Anthropological Institute's Anthropology & Conservation Conference – session on bats (panelist). October 2021. URL

Human dimensions of bat conservation. Bats without Borders. September 2021. URL

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 & Nature Education Symposium. 19 Jan 2019. UN Women Singapore special forum on Women Tackling Climate Change (panelist). 16 Sept 2015.

GRANTS

TITLE AND/OR DESCRIPTION	VALUE
CUNY Interdisciplinary Research Grant – Skunk Cabbage on an Urbanising Planet	40 000 USD
QC Research Enhancement Award – Drones & aerial biodiversity: Impacts & opportunities	6 537 USD
PSC CUNY Enhanced Research Award – Ecological impacts of unmanned aerial vehicles	11 711 USD
Wildlife Reserves Singapore Conservation Fund (WRSCF) – Diet and behaviour of dog-faced fruit bats (<i>Cynopterus brachyotis</i>) in Singapore	7 180 SGD
AVA tender: AVA000/(P)027(15) – CRA with University of Queensland – Population biology and management of street dogs in Singapore	412 345 SGD
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
Bat Conservation International Student Scholarship	5 000 USD
Quebec Society for the Protection of Birds, Alfred B Kelly Memorial Grant	3 000 CAD
	 CUNY Interdisciplinary Research Grant – Skunk Cabbage on an Urbanising Planet QC Research Enhancement Award – Drones & aerial biodiversity: Impacts & opportunities PSC CUNY Enhanced Research Award – Ecological impacts of unmanned aerial vehicles Wildlife Reserves Singapore Conservation Fund (WRSCF) – Diet and behaviour of dog-faced fruit bats (<i>Cynopterus brachyotis</i>) in Singapore AVA tender: AVA000/(P)027(15) – CRA with University of Queensland – Population biology and management of street dogs in Singapore 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 Bat Conservation International Student Scholarship

SCHOLARSHIPS & ACADEMIC HONOURS / AWARDS

YEAR	DESCRIPTION	VALUE
2007-2008	Izaak Walton Killam Memorial Scholarship	25 000 CAD/yr
2005-2006	NSERC Post Graduate Scholarship 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	FCAR NOTE: 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

National Geographic – 09Feb2023 – "Etsy and eBay are selling dead bats—and scientists are disturbed" <u>https://www.nationalgeographic.com/animals/article/etsy-ebay-bats-sold</u>

Insider Business | World Wide Waste – 15Dec2022 – "How cockatoos outsmart humans to open trash bins" <u>https://www.youtube.com/watch?v=N-3oHccgenE</u>

NUS NEWS - 31Oct2017 - "Unmasking the bat" http://news.nus.edu.sg/highlights/unmasking-bat

MacLean's Magazine – 14Jun2011 – "The trouble with city bats"

http://www.macleans.ca/society/technology/the-trouble-with-city-bats/

ScienceDaily – 06Jun2011 – "Big city holds empty promise for bats"

http://www.sciencedaily.com/releases/2011/05/110531135706.htm

Calgary Herald – 07Jul2006 – "U of C studies gone batty"

CBC NEWS (TV) – 06Jul2006 – with Cam MacIntosh

TEACHING EXPERIENCE

CUNY-QC

COURSE CODE AND NAME	ROLE	SALIENT DETAILS
BIOL380.5/680.5 Urban Ecology	Coordinator 2021-	Created and delivered a new, upper-undergraduate and master's level course (lecture and field work)
BIOL106 General Biology: Life-forms	Lecturer 2022-	Revamped significant aspects of the labs, including assessments
and Ecosystems	Lab Instructor 2021, 2023	Created workshops in fundamental university skills Taught one lab section (2021)
NUS, Environmental Studies	and Biological	Sciences
ENV1101 Environmental Studies: an Interdisciplinary Overview	Coordinator 2016- Co-lecturer 2015-2016	 Fully revamped course, with: New guiding theme of sustainability All new content, activities, assessments 15 % improvement in feedback scores New course website
ENV3102 Environmental Challenges: Asian Case Studies II	Coordinator 2013-2020	Mandatory, year 3 field course (Philippines) Designed course from A to Z Duties: teaching, logistics, admin tasks, risk assessment Created course <u>website</u>
ENV3202 Summer Internships	Coordinator 2014-2020	Established industry partnerships Created resumé improvement session Academic supervision of interns Created course <u>website</u>
ENV4101 Environmental Management in Singapore	Co-ordinator 2019- Co-lecturer 2018-2019	 Fully revamped course, with: New format (weekly panel discussions) All new assessments Clear links to SDGs 240 % improvement in feedback scores

LSM4265 Urban Ecology	Coordinator 2015- Co-lecturer 2014-2015	 Revamped course, with: Interdisciplinary, primary-literature based New activities and assessments 22 % improvement in feedback scores Created course <u>blog</u> 	
UCQ, Faculty of Nursing			
ZOOL 269 Introduction to Human Anatomy and Physiology	Asst Prof 2011-2012	Created all-new content and assessments Implemented active learning, e.g., game-based Students from nine countries (five continents)	
BIOL 231 Introduction to Cellular Biology	Instructor summer 2011	Created all-new content and assessments Students from three countries (two continents)	
UofC, Department of Biological Sciences			
BIOL 305 The Human Organism / L'Organisme Humain II	Instructor 2010-11 & 2011-12	Created all-new content and assessments Taught in French (2011) and English (2012)	
BIOL 451 Conservation Biology	Teaching Asst (TA), 2008-2010	Led weekly tutorial discussions Graded all assessments	
BIOL 313 Introduction to Ecology & Evolution	TA, 2008-09	Led one weekly lab section Graded all lab assessments	
BIOL233 Introduction to Organismal Biology	TA, 2006-07 to 2008-09	Led one weekly lab section Graded all lab assessments	
ECOL 429 Ecology of Individuals	TA,2005-06 and 2006-07	Led one weekly lab section Graded all lab assessments Improved lab activities	

OTHER FORMAL EXPERIENCE

Armand Frappier Museum, Biosciences Interpretation Centre Activities Coordinator 2003 to 2005

Coordinated all aspects of group visits (for all school levels and the public) Coordinated summer camps: (1) microbiology, (2) biotechnology, (3) environment & biodiversity Developed pedagogical materials and approaches Hired, trained and managed 30 part- and full-time museum guides

RESEARCH ADVISEMENT (undergraduate honours; **other levels in** *bold italics*)

YEAR	ТОРІС	NAME
2023-	TBD – <i>PhD</i>	Taylor Rubin
	TBD – <i>Master's</i>	Kyle Smith
	TBD – <i>Master's</i>	Matthew Herberg
2022-	TBD – <i>PhD</i>	Sulaimon O Lawal
2021-	The urban ecology of skunk cabbage – <i>Master's</i>	Megan Marchica
	An evidence-based approach to the pitbull issue – <i>Master's</i>	Michelle Mendoza
	Pro-environmental behaviours of People of Colour – <i>Master's</i>	Dimitri Mimy
2020-21	Bat-related attitudes & viewpoints in Singapore – <i>Master's</i>	Rachel LEONG
	Belief in COVID-19 conspiracy theories at NUS – UROPS	Afiq Bin Sulaiman
2019-20	Greening DBS – the departmental water footprint	QIU Jiahui
	Greening DBS – the departmental carbon footprint	TAN Yan Hui Shaina
	Disease ecology of rat lungworm in African land snails	Johnathan WONG
2018-19	Population genetics of street dogs – Postdoctoral fellow	Dr Émilie Sidonie Cros
	Best practices in sea-turtle conservation – <i>Master's</i>	TAN Kelly Siang Ting
	Effects of low-aircraft flyovers on diurnal animals	CHEONG Hui Ping
	Exposure of mammals to heavy metals	GOH Fang Ni
	Effects of drones on bats	LIM Kai Ning
	Kiasuism and conscious consumption among 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	LEE Ee Meng Kenneth
	The switch to LED lighting – impacts on insects	Xinyi YAO
2016-17	Impact of domestic cat predation on wildlife	Joan LIM Hui Mian
	Knowledge of & inclination to conserve biodiversity	LOO Nicolette
	Effects of artificial light on behaviour of bats at a pond	Michelle GAN Wan Jie
	Childhood Nature experience & environmental behaviour	LOH Jia Xin
	Behavioural responses of street dogs to human approach	LUM Wen Hao Deon
2015-16	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	CHAI Jia Yi Zoe
	Impacts of traffic noise on the dawn chorus	KOH Wilson
2014-15	Social perspectives on urban beekeeping	WONG Zi Jin

	JL Coleman, CV Page 8
Diversity of birds in urban park connectors	Prab s/o Ramanathan
Occurrence of seed dispersers in forest fragments	TAN Kelly Siang Ting

RESEARCH EXPERIENCE (in addition to graduate work)

YEAR	DESCRIPTION	NATURE
2016-2019	Population biology & management of street dogs in Singapore	PI
2013-2014	Guidance on the capture & handling of bats for study of bats as viral reservoirs for Duke-NUS Graduate Medical School	Volunteer consultant
2011	Bat survey of Waterton Lakes National Park for Parks Canada	Paid assistant
2011	Quantification of bat activity at wind turbines, for TransAlta, Alberta	Paid consultar
2009	Bat survey of Little Missouri National Grassland for US Forest Service	Paid assistant
2008	Collection of fur samples from small mammals for stable isotope analysis by Erin Fraser, PhD candidate, University of Western Ontario	Volunteer
2005	Assistant on 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 owls	Volunteer

SERVICE TO PROFESSION AND/OR UNIVERSITY

IUCN SSC Bat Specialist Group (Co-Chair Human Dimensions & Bat Trade working groups), 2020-

REFEREE FOR JOURNALS

Basic Appl Ecol, Biol Conserv, Biology, BINHM, CJZ, Diversity, Ecol Soc, Glob Ecol Conserv, IJERPH, J Appl Ecol, J Ethol, J Mammal, J Nat Conserv, J Urban Ecol, Mammal Res, NAWI, Oecol Aust, PLoS ONE, Popul Ecol, Sci Nat, Soc Nat Resour, Sustainability, Wildl Res

CONFERENCES

Session Chair (Human Dimensions of Bat Conservation), 6th International Berlin Bat Meeting, 22-24 March 2021.

Co-organiser of 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 (Coleman et al, 2019).

Member of the Scientific and Organising Committees (**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.

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

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

COMMUNITY SERVICE / OUTREACH (in addition to invited presentations above)

Aug 2020	Webinar – Bats in the media – panel discussion co- organised with four other universities. <u>URL</u>	IUCN, GBatNet
2013-2018	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

Summer Institute in Computational Social Science, Rutgers (SICSS)	2022
Open Networked Learning (<u>ONL202</u>)	2020
Wilderness First Aid Responder	2017
PADI Open Water Diver	2013
Graduate Student Certificate in University Teaching & Leaning (URL)	2010
Instructional Skills Workshop (<u>URL</u>)	2009
Workplace Hazardous Materials Information System	2005
Société des musées québécois – Recevoir son monde (URL)	2003
Raptor rehabilitation – Faculté de médecine vétérinaire, Université de Montréal	2001

OTHER SKILLS

MS Office: Access, Excel, PowerPoint, Word

Statistics / coding: JMP, PAST, RStudio, SAS, SPSS, Systat, Species Richness and Diversity IV Spatial: qGIS

Computational social science: APIs, Text analysis, Machine learning, Web scraping

Adobe: Acrobat Pro, Illustrator, Lightroom, Photoshop

Online learning: Archipelago, Breeze, ExamSoft, MS Teams, Panopto, Sutori, Zoom

Web development: WordPress

Acoustics: Analook, Sonobat

LANGUAGES: English and French (perfectly bilingual); Spanish (nearly fluent); German & Italian (conversational); Visayan & Chinese (beginner)