

# LOGAN SMITH

## JAMES PHD

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### EDUCATION

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**MCGILL UNIVERSITY** (Montréal, Québec)  
*PhD: Biology.* Supervisor: Jon Sakata 2013 - 2019  
*BSc: Biology, minor in Linguistics.* Dean's honor list 2009 - 2013

### RESEARCH & WORK

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#### Current:

**Postdoctoral Fellow:** MCGILL UNIVERSITY 2023 -  
 Supervisor: Sarah Woolley  
 Primarily externally funded through the non-profit **EARTH SPECIES PROJECT**  
**Visiting Research Affiliate:** UT AUSTIN. Supervisor: Michael Ryan 2022 -  
**Visiting Research Affiliate:** YALE UNIVERSITY. Supervisor: Samuel Mehr 2023 -

#### Former

**Postdoctoral Fellow:** SMITHSONIAN TROPICAL RESEARCH INSTITUTE 2022 - 2023  
 Supervisor: Rachel Page  
 Co-supervisors: Michael Ryan, Kimberly Hunter, Ryan Taylor, Sarah Woolley  
**Postdoctoral Fellow:** UT AUSTIN 2022  
 Supervisors: Timothy Keitt, Preston Wilson  
**Postdoctoral Fellow:** UT AUSTIN 2019 - 2022  
 Supervisor: Michael Ryan  
 Co-supervisors: Rachel Page, Kimberly Hunter and Ryan Taylor  
**Research Assistant:** MCGILL UNIVERSITY 2013  
 Supervisors: Lauren Chapman and Suzanne Gray  
**Research Assistant:** MCGILL UNIVERSITY 2012  
 Supervisor: Jon Sakata  
**Software developer:** NOAA (NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION) 2010 - 2012

### PUBLICATIONS (SCHOLAR.GOOGLE.COM/CITATIONS?USER=CQOSJTYAAAAJ)

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#### Peer reviewed publications:

26. James LS, Woolley SC, Sakara JT, Hilton CB, Ryan MJ, Mehr SA (accepted). "Humans share acoustic preferences with other animals" *bioRxiv*.
25. James LS, Woolley SC\*, Ryan MJ\* (2025). "A dopamine agonist affects the social decision-making of calling male túngara frogs" *Hormones and Behavior*. \*co-senior authors. doi.org/10.1016/j.yhbeh.2025.105797
24. James LS, Ruge O, Sakata JT (2025). "Temporal organization of song modulates vocal learning". *iScience*. doi.org/10.1016/j.isci.2025.112789
23. James LS, O'Mara MT, Touchon JC, Ryan MJ, Bernal XE\*, Page RA\* (2025). "The ontogeny of decision-making in an eavesdropping predator" *Proceedings of the Royal Society B* \*co-senior authors. doi.org/10.1098/rspb.2025.0450

22. Sealy BA, **James LS**, Ryan MJ, Page RA (2025) “The influence of hunger and sex on the foraging decisions of frugivorous bats” *Behavioral Ecology*. doi.org/10.1093/beheco/araf095
21. Galletta KJ, **James LS**, Harp D, Hunter KL, Taylor RC, Ryan MJ, Page RA, Baier AL (2025). “Consistent decisions of a predator facing potentially poisonous prey” *Animal Behaviour*. doi.org/10.1016/j.anbehav.2025.123318
20. Christiano BM, Weikel MM, **James LS**, Ryan MJ, Page RA (2025) “Ripeness preferences in Seba’s short tailed-fruit bats, *Carollia perspicillata*” *Acta Chiropterologica* doi.org/10.3161/15081109ACC2025.27.1.007
19. **James LS**, Ryan MJ (2025) “Time and place affect the acoustic structure of frog mating calls” *Current Zoology*. doi.org/10.1093/cz/zxae039
18. Sealey BA, **James LS**, Cohen G, Ryan MJ, Page RA (2024) “Rapid foraging risk-assessments in the Jamaican fruit eating bat, *Artibeus jamaicensis*” *Animal Behaviour*. doi.org/10.1016/j.anbehav.2024.07.015
17. **James LS**, Wang AS, Bertolo M, Sakata JT (2023) “Learning to pause: Fidelity of and biases in the developmental acquisition of gaps in the communicative signals of a songbird” *Developmental Science*. doi.org/10.1111/desc.13382
16. **James LS**, Baier AL, Page RA, Clements P, Hunter KL, Taylor RC, Ryan MJ (2022) “Cross-modal facilitation of auditory discrimination in a frog” *Biology Letters*. doi.org/10.1098/rsbl.2022.0098
15. **James LS**, Taylor RC, Hunter KL, Ryan MJ (2021). “Evolutionary and allometric insights into anuran auditory sensitivity and morphology” *Brain, Behavior and Evolution* **\*\*Editor’s choice**. doi.org/10.1159/000521309
14. **James LS**, Halfwerk W, Hunter KL, Page RA, Taylor RC, Wilson PS, Ryan MJ (2021) “Covariation among multimodal components in the courtship display of the túngara frog” *Journal of Experimental Biology*. doi.org/10.1242/jeb.241661
13. **James LS**, Mori C, Wada K, Sakata JT (2021) “Phylogeny and mechanisms of shared hierarchical patterns in birdsong” *Current Biology*. doi.org/10.1016/j.cub.2021.04.015
12. Kalra S, Yawatkar V, **James LS**, Sakata J, Rajan R (2021) “Introductory gestures before songbird vocal displays are shaped by learning and biological predispositions” *Proceedings of the Royal Society B*. doi.org/10.1098/rspb.2020.2796
11. **James LS**, Davies R, Mori C, Wada K, Sakata JT (2020) “Manipulations of sensory experiences during development reveal mechanisms underlying vocal learning biases in zebra finches” *Developmental Neurobiology*. doi.org/10.1002/dneu.22754
10. **James LS**, Sun H, Wada K, Sakata JT (2020) “Statistical learning for vocal sequence acquisition in a songbird” *Scientific Reports*. doi.org/10.1038/s41598-020-58983-8
9. **James LS\***, Fan R\*, Sakata JT (2019) “Behavioural responses to video and live presentations of females reveal a dissociation between performance and motivational aspects of birdsong” *Journal of Experimental Biology* \*co-first authors. doi.org/10.1242/jeb.206318

8. James LS, Sakata JT (2019) “Developmental modulation and predictability of age-dependent vocal plasticity in adult zebra finches” *Brain Research*. doi.org/10.1016/j.brainres.2019.146336
7. Pearse WD, Morales-Castilla I, James LS, Farrell M, Boivin F, Davies TJ (2018) “Complexity is complicated and so too is comparing complexity metrics—a response to Mikula et al. 2018” *Evolution*. doi.org/10.1111/evo.13450
6. James LS, Dai JB, Sakata JT (2018) “Ability to modulate birdsong across social contexts develops without imitative social learning” *Biology Letters*. doi.org/10.1098/rsbl.2017.0777
5. Pearse WD, Morales-Castilla I, James LS, Farrell M, Boivin F, Davies TJ (2018) “Global macroevolution and macroecology of passerine song” *Evolution*. doi.org/10.1111/evo.13450
4. James LS, Sakata JT (2017) “Learning biases underlie “universals” in avian vocal sequencing” *Current Biology*. <https://doi.org/10.1016/j.cub.2017.10.019>
3. Murphy K, James LS, Sakata JT, Prather JF (2017) “Advantages of comparative studies in songbirds to understand the neural basis of sensorimotor integration” *Journal of Neurophysiology*. doi.org/10.1152/jn.00623.2016
2. James LS, Sakata JT (2015) “Predicting plasticity: acute context-dependent changes to vocal performance predict long-term age-dependent changes” *Journal of Neurophysiology*. doi.org/10.1152/jn.00688.2015
1. James LS, Sakata JT (2014) “Vocal motor changes beyond the sensitive period for song plasticity” *Journal of Neurophysiology*. doi.org/10.1152/jn.00217.2014

**Conference proceedings:**

1. Mahon M, Hoffman B, James LS, Cusimano M, Hagiwara M, Woolley SC, Pietquin O (2025). “Robust detection of overlapping bioacoustic sound events” *DCASE, NeurIPS 2025*

**Invited commentaries:**

1. James LS, Ryan MJ (2020) “Perspectives regarding future experiments on categorical perception: a comment on Green et al.” *Behavioral Ecology*. doi.org/10.1093/beheco/araa016

**Press articles:**

1. James LS, Bernal XE, Page RA (2025) “Young bats learn to be discriminating when listening for their next meal” *The Conversation*

**Upcoming (preprints):**

James LS, Oudyk K, Wall EM, Chen Y, Pearse WD, Sakata JT (resubmitted). “Pervasive patterns in the songs of passerine birds resemble human music universals and are linked with production and cognitive mechanisms” *bioRxiv*

Hamilton ORM, James LS, Page RA, Ryan MJ, Taylor RC, Hunter KL (resubmitted). “If memory serves: Multisensory male display improves female memory during mate sampling” *bioRxiv*

## FUNDING/AWARDS

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- NSF grant (Co-PI)	under review
- Earth Species Project research fellowship (~\$120,000)	2023-
- Smithsonian Post-doctoral Fellowship (\$59,450)	2022-2023
- AAAS/Science Program for Excellence in Science	2021
- Biology department day best poster winner	2019
- CRBLM student stipend award (\$6000)	2018
- CRBLM travel award (\$700)	2018
- Jane Stewart Prize (\$500)	2018
- Biology graduate excellence award (\$6000)	2018
- CRBLM student stipend award (\$6000)	2017
- GREAT travel award (\$500)	2017
- CEEB best presentation winner	2016, 2017, 2019
- Heller award (\$10,000)	2016
- CEEB runner up best presentation	2015
- International Tuition Waiver (~\$66,000)	2013-2019
- GREAT travel award (\$500)	2013
- CRBLM travel grant (\$700)	2013
- Graduate Excellence Award (\$5,000)	2013
- CSBN Student Entrance Stipend (\$7,500) (non-competitive)	2013
- Student Undergraduate Research Award (\$5,600)	2013
- GREAT travel award (\$500)	2013
- Student Undergraduate Research Award (\$5,600)	2012
- Richard Adams Award (\$825)	2011
- Alma Mater Scholarship (\$3,000)	2009

## ORAL PRESENTATIONS

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Animal Behavior Society annual meeting (Baltimore, MD)	July 2025
Animal Behavior Society annual meeting (London, ON)	June 2024
Barro Colorado Island 100-year symposium (Gamboa, Panama)	June 2024
Gambi talk (Gamboa, Panama)	November 2023
STRI Tupper Talk (Panama City, Panama; <b>invited</b> )	November 2023
Mike at 70 symposium (UT Austin)	November 2023
Animal Behavior Society annual meeting (Portland, OR)	July 2023
STRI Fellows' Symposium (Panama City, Panama)	June 2023
Animal Behavior Society annual (San Jose, Costa Rica)	July 2022
Gamboa frog talk (Gamboa, Panama)	June 2022
Earth Species Project seminar ( <b>invited</b> )	May 2022
BBE seminar (UT Austin)	February 2022
Bridging Brains and Bioacoustics seminar ( <b>invited</b> )	January 2022
CEEB seminar at McGill (McGill; <b>invited</b> )	November 2021
CRBLM seminar: Cultural Evolution of Communication (Montreal; <b>invited</b> )	November 2021
Smithsonian Tropical Research Institute virtual science talk ( <b>invited</b> )	September 2021
Animal Behavior Society annual meeting	August 2021
Animal Behavior Society annual meeting	July 2020
Gamboa frog talk (Gamboa, Panama)	June 2020
Texas Acoustics seminar ( <b>invited</b> )	April 2020

CEEB retreat (McGill; best presentation <b>winner</b> )	March 2019
BBE seminar (UT Austin; <b>invited</b> )	November 2018
NB&B seminar series (McGill; PhD Seminar)	September 2018
CRBLM prosody workshop presentation (Montreal; <b>invited</b> )	July 2018
Organismal Seminar (McGill)	May 2018
CEEB retreat (McGill)	April 2018
SQEBC annual meeting (U Ottawa)	November 2017
Animal Behavior Society annual meeting (Scarborough, ON)	June 2017
NB&B retreat (McGill; <b>invited</b> )	May 2017
CEEB retreat (McGill; best presentation <b>winner</b> )	April 2017
Linguistics Student Association Speaker Series (Concordia; invited)	October 2016
CEEB retreat (McGill; best presentation <b>winner</b> )	April 2016
CRBLM workshop on vocal learning and rhythm (Montreal; <b>invited</b> )	February 2016
CEEB retreat (McGill; runner-up best presentation)	April 2015
NB&B symposium (McGill)	April 2015
NB&B seminar (McGill)	October 2013
CRBLM Data Storm (Montreal)	October 2013

## POSTER PRESENTATIONS

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### Presented:

**James LS, Woolley SC, Ryan MJ** “Evoked vocal responses in a frog are modulated by dopamine”

1. International Congress of Neuroethology (Berlin) July 2024

**James LS, Woolley SC, Sakata JT, Hilton CB, Mehr SA\*, Ryan MJ\*** “Humans and animals share acoustic preferences” \*co-senior author

1. CRBLM scientific day (Montreal) April 2024

**James LS, Page RA, Hunter KL, Taylor RC, Ryan MJ** “Multimodal production and perception in the túngara frog”

1. STRI Fellows’ Symposium (Panama City, Panama) June 2022

**James LS, Davies R, Mori C, Wada K, Sakata JT** “Motor contributions to vocal sequence learning biases”

1. Society for Neuroscience (San Diego) November 2018
2. Biology Department Day (McGill) - **\*\*Winner best poster** February 2019

**James LS, Davies, Sakata JT** “Machine learning approaches uncover the acoustic bases of vocal learning biases”

1. CRBLM Scientific Day (Montreal; **competitive**) May 2018

**James LS, Sakata JT** “Learning biases underlie “universals” in avian vocal sequencing”

1. Montreal Cognitive Science Day (**competitive**) March 2018

**James LS, Sakata JT** “Experimental evidence for innate biases in vocal communication”

1. Society for Neuroscience (San Diego) November 2016
2. Songbird Satellite Symposium (San Diego) November 2016
3. CRBLM Scientific Day (Montreal; **competitive**) December 2016

**James LS, Sakata JT** “Predicting plasticity: acute context-dependent changes to vocal performance predict long-term age-dependent changes”

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|-------------------------------------------|--------------|
| 1. Society for Neuroscience (Chicago)     | October 2015 |
| 2. Songbird Satellite Symposium (Chicago) | October 2015 |
| 3. Biology department day (McGill)        | October 2015 |

Sun H, **James LS, Sakata JT** “Statistical learning of acoustic sequences in the Bengalese finch”

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| 1. CRBLM Symposium (Montreal; <b>competitive</b> ) | May 2015       |
| 2. IPN retreat (McGill)                            | September 2015 |

**James LS, Sakata JT** “Persistence and Predictability of Adult Song Plasticity”

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|---------------------------------------------|---------------|
| 1. Society for Neuroscience (San Diego)     | November 2013 |
| 2. Songbird Satellite Symposium (San Diego) | November 2013 |

**James LS, Sakata JT** “Natural Vocal Motor Plasticity in Adult Songbirds”

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|------------------------------------------------------------|--------------|
| 1. CSBN 30 <sup>th</sup> Anniversary Symposium (Concordia) | October 2013 |
| 2. CRBLM Symposium (Montreal; <b>competitive</b> )         | May 2012     |

**Contributed:**

Christiano BM, Weikel MM, **James LS**, Ryan MJ, Page RA (submitted) “Reproductive state influences ripeness preference in Seba’s short tailed-fruit bats, *Carollia perspicillata*”

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|--------------------------------------------------|-----------|
| 1. STRI Fellows’ Symposium (Panama City, Panama) | June 2022 |
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**TEACHING & SUPERVISION**

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Teaching assistant: Evolution of the brain (BIOL 307)	2016-2018
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Average student evaluations: 4.7/5

Guest lectures:

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|------------------------------------------|---------------|
| Animal Communication (McGill University) | October 2022  |
| Animal Behavior (SUNY Geneseo)           | October 2021  |
| Syntax 2 (McGill University)             | November 2015 |
| Animal Communication (McGill University) | October 2015  |

Ramp-UP (NSF) post-baccalaureate mentor at STRI	2023-2024
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Supervision of undergraduate research projects: Emily Roberts, Herie Sun\*, Cassandra Rogers, Jennifer Dai\*, Ronald Davies\*, Raina Fan\*, Ruth Simberloff, Marina Ramirez, Yijia Xie, Hannah Mosca, Kevin Zhang, Olivia Ruge\*, Franck-Sinclair Wamkeue-Tchagnian, Michaela Bierman

\*undergraduate coauthors on peer-reviewed publications

**ORGANIZATIONAL SERVICE/OUTREACH**

**Peer review & conferences**

Peer reviewed at journals including: Acta Ethologica, Animal Behaviour, Animal Cognition, Behavioral Ecology, Behavioral Ecology and Sociobiology, Bioacoustics, Biological Journal Linnean Society, Current Biology, Developmental Science, Ecology and Evolution, Ethology

Ecology and Evolution, Integrative and Comparative Biology, Journal of Avian Biology,  
PeerJ, PlosOne, Proceeding of the Royal Society B, Royal Society Open Science  
VIHAR workshop - scientific committee 2024

### **Equity and inclusion**

IDEA-Tropical website creator (idea-tropical.org) 2021 -  
IDEA-Tropical (Inclusion, Diversity, Equity and Access) organizer 2021 -  
Panelist (**invited**) - CRBLM Research Ethics Panel (Montreal) 2024  
EDI discussion group at UT Austin 2019 - 2021  
Founder and organizer: Biology Department Day symposium 2016 - 2019

### **Campus organizations**

Biology graduate student association room manager 2017 - 2018  
Biology graduate student association **president** 2016 - 2017  
Speaker for post graduate student society (PGSS) council 2015 - 2019  
Biology graduate student association councilor 2015 - 2016  
Biology representative to the post graduate student society 2014 - 2015

### **Public outreach**

Bat night outreach (Gamboa, Panama) 2020 -  
Balboa school visit to STRI - high school outreach 2023  
Animal Behavior Podcast (Content editor) 2023 - 2025  
Explorations: Panorama of Science lab tours (McGill) 2013 - 2019  
Canada-wide science fair judge 2016