

# Sarah Nason

Wildlife biologist | [sarahnason.ca](http://sarahnason.ca)  
sarah.e.nason@gmail.com | 780-667-3951

## Professional Summary

I am a scientist with a passion for creative ways of communicating data and scientific information. I believe that the impact of research can reach new heights when findings are communicated in an accessible and engaging way that brings important, credible messages to life. My research interests are mainly in the areas of conservation genetics, evolutionary biology and phylogenetics. I am especially passionate about projects where I can marry my communication and scientific skills to create positive changes for wildlife and the environment.

## Education

- 09/2016 – 01/2019     **M.Sc. Biology, Université du Québec à Montréal** (GPA 4.2/4.3)
- Independently designed and completed a field- and lab-based study in the field of evolutionary genetics under the supervision of Dr. Clint Kelly
  - Thesis topic: *The maintenance of alternative mating strategies in Wellington tree weta*
  - Awarded certificate in Zoo Conservation Science by NSERC ReNewZoo Program
  - Demonstrated leadership acting as Student Representative on ReNewZoo Program Committee and Content Manager for the blog of the Quebec Centre for Biodiversity Science
- 09/2011 – 05/2015     **B.Sc. Animal Biology (Hons.), University of Alberta** (GPA 3.9/4.0)
- Gained competency in a variety of biology topics, including statistics, genetics, ecology, evolutionary biology, and programming for data analysis and visualization (R)
  - Thesis topic: *Effects of personality on reproductive success and home range size of North American red squirrels* (supervisor: Dr. Stan Boutin)
  - Demonstrated leadership acting as Co-founder/President of a student society (zoology club) and helping orient/guide new students as a Science Mentor for the Faculty of Science

## Work Experience

- 01/2019 – 02/2020     **Ecologist and Science Communicator, Fuse Consulting Ltd.**
- Specialized in translating technical scientific language and concepts into accessible, engaging written products; responsible for leading the writing and copy editing of projects
  - Developed concept art, illustrations, and scientific figures
  - Led and managed projects and communications with clients
- 09/2018 - present     **Research Consultant, Calgary Zoological Society**
- Leading a systematic literature review of terrestrial arthropod conservation translocations

- Currently performing data analysis, developing figures, and writing main text of a manuscript in preparation for publication
- This work is a contract awarded to extend my M.Sc. internship project

11/2015 –  
03/2016

**Haast Kiwi Intern, Department of Conservation (New Zealand)**

- Learned wildlife management skills for conservation of Haast tokoeka kiwi birds
- Worked in steep, isolated region requiring helicopter access and backcountry navigation
- Managed public outreach program for local population of Fiordland crested penguins

05/2015 –  
08/2015

**Head Field Technician, Lab of Dr. Jeffrey Lane**

- Managed collection of demographic, genetic, and phenological data from two subpopulations of Columbian ground squirrels in Kananaskis, Alberta
- Supervised a four-person field crew, including training, scheduling, and task prioritization
- Acted as first author and led the development of a manual of field procedures for future field crews

05/2014 –  
08/2014

**Summer Field Technician, Lab of Dr. Stan Boutin**

- Independently coordinated the collection of demographic, genetic and behavioural data from a subpopulation of North American red squirrels in Kluane, Yukon

**Awards and Honoraria**

- Canada's Accredited Zoos and Aquariums Annual Meeting Invited Speaker Honorarium (\$300), September 2019
- Québec Centre for Biodiversity Science Learning Development Award (\$1000), April 2018
- Entomology Society of Canada Graduate Research Travel Award (\$2000), May 2017
- Québec Centre for Biodiversity Science Excellence Award (\$1250), two-time recipient (April 2017, May 2018)
- NSERC CREATE ReNewZoo scholarship (\$17 500/year), 2016 – 2018
- University of Alberta Dean's Silver Medal in Science, May 2015
- NSERC Undergraduate Summer Research Award (\$4500), two-time recipient (March 2014, March 2015)

**Skills**

- DNA extraction and PCR
- Microsatellite genotyping via 3730 DNA Analyzer and GENEMAPPER
- Statistical analysis, data management, and data visualization in R (tidyverse, lmer, ggplot)
- Population viability analysis in VORTEX
- Population genetic analyses in CERVUS
- Radio telemetry

- Backcountry navigation via GPS, compass, and map
- Animal live-trapping and handling
- Content management and growing followers of social media and blog feeds
- Advanced scientific and technical writing, grant writing, and copy editing
- Graphic design and illustration in Adobe Suite (Photoshop, Illustrator, and InDesign)
- Facilitation and presentation of workshops and synthesis of workshop outcomes
- Bilingual language skills, with fluency in English (native speaker) and French (second language)

## Peer-reviewed Publications

1. **Nason, S.**, Kelly, C. D., Brichieri-Colombi, T., Lloyd, N., & Moehrensclager, A. (2020). *Maximizing the effectiveness of qualitative systematic reviews: a case study on terrestrial arthropod translocations*. Manuscript in preparation.
2. **Nason, S.**, & Kelly, C. D. (2020). *Equal fitness among alternative mating strategies*. Manuscript in preparation.
3. **Nason, S.**, & Kelly, C. D. (2019). *Sex differences in Bateman gradients and opportunity for selection in a harem polygynous insect*. Manuscript in review.
4. Haines, J., **Nason, S.**, Skurdal, A., Bouchier, T., & Hämäläinen, A. (2019). *Sex- and context-specific effects of personality on fitness but no link to life history in red squirrels*. Manuscript in review. [Pre-print PDF](#).
5. Tierney, K., Welsh, P. O., Mills, M., **Nason, S.**, Barreda, D., & Paszkowski, C. A. 2017. Mallards (*Anas platyrhynchos*) and wastewater ponds, Part II: Developmental, physiological, morphological, and behavioural effects of ingestion of secondary clarified effluent water. *Ecotoxicology and Environmental Safety* 143: 336 – 343. [doi: 10.1016/j.ecoenv.2017.04.021](https://doi.org/10.1016/j.ecoenv.2017.04.021).

## Presentations

1. **Nason, S.**, & Gillies, C. 2019. *Recommendations for a Wetland Crossings Monitoring Protocol*. Oral presentation, Alberta Roadway Watercourse Crossing Inspection Manual – Review Workshop, Edmonton, AB.
2. **Nason, S.** 2019. *Current status and future prospects of terrestrial arthropod conservation translocations*. Oral presentation (Invited), Annual Meeting of Canada's Accredited Zoos and Aquariums, Calgary, AB.
3. **Nason, S.** 2018. *Insect Conservation Translocations: Current Status and Future Prospects*. Poster presentation, Association of Zoos and Aquariums Annual Meeting, Seattle, WA.
4. **Nason, S.** 2018. *Conserving Evolutionary Potential in the Wellington Tree Weta*. Oral presentation, Canadian Society for Ecology and Evolution Annual Meeting, Guelph, ON.
5. **Nason, S.** 2017. *La sélection sexuelle et l'influence de l'environnement : implications sur les translocations de Wellington tree weta*. Oral presentation, Québec Centre for Biodiversity Science Annual Conference, Montreal, QC.
6. **Nason, S.** 2015. *Reproductive Success in Male Red Squirrels: the Role of Personality*. Oral presentation, R.E. Peter Biology Conference, Edmonton, AB.

## Grey Reports and Unpublished Works

1. **Nason, S.** (2020). *Sistering Indigenous and Western Science: A Briefing Package*. Natural Resources Canada, Edmonton, AB.
2. **Nason, S.**, Osko, T., Gillies, C., Gingras, B., and Pyper, M. (2020) [Recommendations for a Wetland Crossings Monitoring Protocol: A report for the Foothills Stream Crossing Partnership](#). Report produced by Fuse Consulting Ltd., Circle T Consulting, FPIInnovations, and Ducks Unlimited for fRI Research.
3. **Nason, S.** (2019) [Recent study in Southern Alberta shows loss of grasslands across the landscape, with implications for fire risk and fire history](#). Article published on *Landscapes in Motion*.
4. Pyper, M., and **Nason, S.** (2019) *Renew Magazine Fall 2019 Issue*. University of Alberta, Edmonton, AB.
5. Pyper, M., and **Nason, S.** (2019) *fRI Research Migratory Birds Program Scoping: Evaluating the potential for a new program in Alberta*. fRI Research, Hinton, AB.
6. **Nason, S.**, and Pyper, M. (2019) [Beyond Beetle: A Guide to Managing Lodgepole Pine Stands in Alberta After Mountain Pine Beetle Outbreak](#). Field guide produced by Fuse Consulting Ltd. for the lab of Dr. Ellen Macdonald.
7. **Nason, S.** (2019) [Ducking the costs of migration: how wastewater treatment facilities are keeping mallards grounded in Alberta](#). Freelance article published in *Science Contours*.
8. **Nason, S.** (2019) [The maintenance of alternative strategies in Wellington tree weta \(Hemideina crassidens\): Testing the predictions of the genetic polymorphism hypothesis](#). Master's thesis, Université du Québec à Montréal, Montreal, QC.
9. **Nason, S.** (2018) [Between a Meme and a Hard Place: How Accredited Zoos Could Turn a Conflicted Millennial Market](#). Invited article for *CAZA Connections* (newsletter for members of Canada's Accredited Zoos and Aquariums).

## Other Selected Achievements

- Invited to speak on a career panel for zoo conservation graduate students and present research results at Annual Meeting of Canada's Accredited Zoos and Aquariums (September 2019)
- Led the coordination of a multi-company training session on working effectively with Indigenous peoples (provided by Indigenous Corporate Training, Inc.) with all-Indigenous service providers (hosted at Yellowhead Tribal College and catered by Native Delights) (July 2019)
- Presented and facilitated of a series of infographics workshops for Environment and Climate Change Canada and Natural Resources Canada (French and English versions) (February-March 2018)

*References available upon request.*