

Siobhan Darlington, M.Sc. B.I.T.

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SUMMARY OF QUALIFICATIONS

Advanced statistical modelling in ecology

Research & field focus on movement patterns of mammals & birds

Collaboration with universities, government, NGOs & industry
on species-at-risk research

FIELD SKILLS

- Large mammal (cougar & deer) capture & GPS collaring
- Blood, fecal & hair sampling, and drug administration
- Mammal track & fecal identification
- Aerial ungulate surveys by helicopter & roadside surveys
- Remote camera trap array deployment & maintenance
- VHF radio-tracking and tagging of deer, birds, turtles, snakes
- North American bird ID by sight and sound
- Bird banding/mist netting of passerines, owls, and raptors (3000+ banded of 90 sp.)
- Breeding bird counts & nest searching for nightjars, gulls, loons, & swallows
- Hiking & snowmobiling long hours and in adverse weather conditions
- Conducting field work in deep snow, in temps from -25°C to 40°C, and in thick biting insects

ANALYTICAL SKILLS

- Strong familiarity with Species-At-Risk Act & provincial status reports
- Advanced statistical modelling for species habitat selection & movement (R & ArcGIS 10.3)
- Collecting & managing large ecological data sets

EDUCATION

Ph.D. Student, Biology, University of British Columbia Okanagan Jan 2020 Present

Advisors: Dr. Adam Ford & Dr. Karen Hodges Wildlife Restoration Ecology Lab

- GPS collaring and camera trapping of adult cougars across southern British Columbia to model the impacts of fire and human disturbance on population dynamics and predation of declining mule deer.

M.Sc. Environmental Studies, University of Victoria November 2018

Advisors: Dr. John P. Volpe and Dr. Jason T. Fisher - Applied Conservation Macro-Ecology lab

- Analyzed large-scale telemetry and remote camera trap data to model the influence of industry and predation risk on white-tailed deer seasonal habitat selection and movement using resource selection functions and integrated step selection analysis with management implications for declining woodland caribou in Alberta.

B.Sc. First class Honours Biology & Sustainability, Dalhousie University May 2014

Advisor: Dr. Cynthia Staicer – Ornithology lab

- Thesis modelling provincial and protected area habitat selection in Eastern wood-pewee in Nova Scotia using Maximum-Entropy method & ArcGIS.

PROFESSIONAL EXPERIENCE

- British Columbia Conservation Foundation –Contract biologist Dec 2019-Present
- Joint literature review for provincial cougar management plan and cougar-caribou dynamics in British Columbia
- Rocky Point Bird Observatory –Senior passerine bander July-October 2018 &2019
- Lead & trained volunteers conducting standard passerine banding and daily census for fall migration monitoring at two CMMN stations on Vancouver Island’s south coast
- Foothills Research Institute – Caribou Program Research Assistant Nov 2018-June 2019
- Conducting resource selection analysis of woodland caribou and grizzly bear response to mountain pine beetle infestation using radio-telemetry data in west-central Alberta
 - Conducting fecal surveys for woodland caribou by helicopter with the Government of Alberta
 - Trapping and collaring of white-tailed and mule deer within caribou ranges
- University of Guelph, ON – Nightjar species at-risk technician May-July 2018
- Conducted point-count surveys, nest searching, mist-netting, banding & attaching radio-transmitters to breeding species-at-risk Eastern whip-poor-will and Common nighthawk
- University of Victoria – GIS & Biogeography Lab Instructor Jan 2016-April 2018
- Instructed 2nd and 3rd year labs in advanced GIS analysis, biogeography, environmental management, and systems theory. Engaged students in scientific research through in-class lectures and evaluated student assignments and exams.
- InnoTech Alberta – Large mammal camera trap technician Oct 2017
- Deployed 62 Reconyx camera array in Christina Lake, AB for detection of large mammals in mix-wood boreal forest during winter conditions.
- Bird Studies Canada - Aerial insectivore field technician Jun-Aug 2016
- Surveyed private properties for breeding species-at-risk including barn swallows, cliff swallows, bank swallows, bobolink and chimney swifts across New Brunswick and Nova Scotia. Administered landowner surveys and public outreach & education.
- Nature Conservancy of Canada – Coordinator/Intern New Brunswick & PEI Apr-Nov 2014
- Coordinated the Conservation Volunteers Program i.e. waterfowl surveys, cleanups, trail building. Recruited volunteer land stewards and assisted with GIS analysis and property surveys.

VOLUNTEER EXPERIENCE

- Events Coordinator – UBCO The Wildlife Society Chapter September 2020
- Black-tailed deer capture & collar technician – Urban Wildlife Stewardship Society Mar-Apr 2018
- Assistant owl bander/extractor – Rocky Point Bird Observatory Oct 2017
- Assistant passerine bander/extractor – Acadia University Aug 2016, 17
- UVic Environmental Studies Graduate Council Representative Sept 2016-Aug 2017
- Species-at-risk technician -Mersey Tobetic Research Institute, NS May 2016
- Greater Victoria Green Team Habitat Restoration Volunteer Sept 2015
- Elk Research Assistant – Yellowstone Ecological Research Centre Jul-Aug 2014
- Volunteer Coordinator, Canadian Cancer Society’s Camp Goodtime Aug 2009-13

CERTIFICATIONS

- ECCS Bird Banding Permit – British Columbia (#10781W)
- Standard, Wilderness, & Marine Basic First Aid (exp. 2021)
- Chemical Immobilization of Wildlife (cert. 2019)
- Firearms Safety Course (cert. 2019)
- AST1 Avalanche Safety (cert. 2018)
- H₂S Safety Training (cert. 2018)
- Bear Aware Safety Training (cert. 2017)
- WHMIS (cert. 2015)

GRANTS & AWARDS

NSERC Alexander Graham Bell Canada Graduate Scholarship - Doctoral (\$105,000)	2020
University of British Columbia Entrance Award (\$5,000)	2019
Lorene Kennedy Write-up Award (\$1,500)	2018
Mitacs Accelerate Grant (\$15,000)	2018
University of Victoria Graduate Awards (\$9,000)	2015-16
University of Victoria President's Research Scholarship (\$4,000)	2015
NSERC Alexander Graham Bell Canada Graduate Scholarship – Master's (\$17,500)	2015
Dalhousie University Entrance & Continuing awards (\$3,000)	2010-14

PUBLICATIONS

F.E.C. Stewart, **S.Darlington**, J.P. Volpe, McAdie, M., Fisher, J.T. (2019). Corridors best facilitate functional connectivity across a protected area network. *Scientific Reports*. DOI: 10.1038/s41598-019-47067-x

S. Darlington, Burton, A. C., Volpe, J.P., Fisher, J.T. (2020). Cumulative effects of human land-use, natural habitat & predation risk best explain seasonal resource selection of white-tailed deer in a high disturbance landscape. *Ecology & Evolution*, *in review*.

SELECT CONFERENCES

S. Darlington, L. Finnegan, G. Stenhouse, T. Larsen. Poster: "Pine-ing" for cover: Caribou and Grizzly bear response to Mountain Pine Beetle infestation in West Central Alberta. Alberta & Canadian Chapter of the Wildlife Society, Canmore Alberta, March 22 24 2019.

S. Darlington, F.E.C. Stewart, J.T. Fisher, A.C. Burton, J. Volpe. Deer on the move: white tailed deer anti predator movement response to industrial features in northeastern Alberta. Canadian Society for Ecology & Evolution, University of Guelph ON, July 18 21 2018.

S. Darlington, J.T. Fisher, J. Volpe. Predator avoidance and seasonal resource selection by white tailed deer (*Odocoileus virginianus*) in Northern Alberta. Alberta Chapter of the Wildlife Society, Lac La Biche AB, March 2017.

SELECT GUEST LECTURES

S. Darlington. Ask an expert – Cougars in British Columbia. Mission Hill Elementary school, Vernon BC. March 2020.

S. Darlington. Species Distribution modelling and predator-prey dynamics in the Alberta boreal forest. Geography 328 – Advanced GIS Analysis. University of Victoria, November 2017.

S. Darlington. How does anthropogenic activity alter carnivore community structure? Environmental Studies 384 - Systems Theory. University of Victoria, October 2017.

S. Darlington. What drives deer distributions in northern Alberta? Geography 358 – Landscape Ecology. University of Victoria, BC, March 2017.

INTERESTS

Birding (Siosaur on Ebird)

Wildlife photography (@wildlife_darling on Instagram)

Snowshoeing

Traveling, hiking, and camping

REFERENCES

1. Dr. Adam Ford, Assistant Professor University of British Columbia
Cell number: 250 826 3101
E mail: adam.ford@ubc.ca

2. Dr. Jason Fisher, Senior Wildlife Scientist InnoTech Alberta
Work Number: 250-483-3297
E-mail: Jason.fisher@innotechalberta.ca

3. Dr. Laura Finnegan, Caribou Program Director fRI Research
Cell number: 780-223-4640
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