

EDUCATION

University of Alberta

M.Sc. Environmental and Conservation Biology, 1999.
Department of Renewable Resources, Faculty of
Agriculture & Forestry.

University of Alberta

B.Sc. Zoology, 1993. Faculty of Sciences.

CAREER AND PROJECT EXPERIENCE

2014 - 2020 **Senior Wildlife Biologist** - Applied Aquatic Research Ltd, Vertex Resource Group, PESCA Environment, Trace Associates Ltd, Golder Associates, Barr Engineering and Environment

- Development of mitigation measures regarding compliance and regulatory requirements of the Migratory Birds Convention Act, SARA and the Alberta Wildlife Act. Consulting on renewables, pipeline, oilsands, transportation, electricity and residential development construction clients to satisfy requirements within the Master Schedule of Standards and Conditions, Sensitive Species Inventory Guideline.
- Wildlife specialist with multiple stake-holders; role includes managing and coordinating fieldwork, mitigation programs, technical reports, sensitive species survey forms FWMIS data and regulatory consultation.
- Conduct pre-disturbance site assessments and sensitive wildlife surveys for baseline data to inform decision making processes.

1994-2015 **Wildlife Field Ecologist** - Independent Consultant for Golder Associates, Armada Environmental, Westworth and Associates, Aspen Environmental, NAWMP

- Contribution to environmental impact assessments addressing mitigating and monitoring sensitive wildlife features.

1995-2014 **Science Communications**

Author - Lone Pine Publishing

- Author of 17 natural history field guides including: Birds of Alberta, Mammals of Alberta, Reptiles and Amphibians of Canada, Birds of New York, Birds of Seattle.

Scientific Writer - Species at Risk Management Division, Environment Canada, others.

PROFESSIONAL SERVICES

- **Renewable Application Approvals:** working with AEP wildlife directives including breeding bird (BBS), migration and sensitive species inventories (sensitive raptors, burrowing owl, sensitive amphibians and reptiles). Working alongside regulatory authorities on design, mitigation and post-construction monitoring.
- **Bird Populations:** breeding bird (BBS) and AEP sensitive species inventory guidelines, bio-acoustic birdsong interpretation, best management practices for compliance with Migratory Birds Convention Act (MBCA) and Alberta Wildlife Act (AWA), Species at Risk Act (SARA).
- **Species at Risk & Biophysical Assessment:** SAR-specific surveys and critical wildlife habitat assessments including Ord's kangaroo rat mitigation and pipeline realignments.

- **Mammal Populations:** Ord's kangaroo rat surveys and mitigation, bear den surveys, snow-tracking surveys, aerial surveys, line transects (distance sampling), small mammal capture and safe-handling.
- **Herptile Populations:** acoustic & breeding evidence amphibian surveys, reptile presence & hibernacula surveys, snake and amphibian capture, salvage & relocation and management.
- **Traditional Knowledge and First Nations:** Liaise in field with First Nations team members in support of TK initiative and to enhance mutual studies of wildlife resources. Husky Energy (2016) Suncor, Ft Hills (2014-19).
- **Vegetation and Habitat Inventory:** ecosite classification/ground-truthing and rare plant survey assistance.
- **Research, Data Analysis and Scientific Reporting:** study design, statistical analysis, technical reporting and writing components of wildlife and environmental reports.
- **Training and Mentorship:** bird (audio & visual), mammal track, plant identification and survey techniques, ecological awareness.

SELECTED PROJECT HIGHLIGHTS

- **Peavine Solar Project (2019).** Pre-construction wildlife inventories, study design, submission assistance and regulatory consultation.
- **Medicine Line Solar Project (2018/19).** Pre-construction wildlife inventories, study design, submission assistance and regulatory consultation (AEP Lethbridge).
- **Rio Sol Solar Project (2018/19).** Pre-construction wildlife inventories and submission assistance.
- **Aura Solar Duchess Project (2017).** Pre-construction wildlife inventories.
- **Pembina Pipeline, Empress NEB (2018-2020):** Field lead mitigating impacts of construction and repairs on species-at-risk including Ord's kangaroo rat. Project included extensive burrow surveys, re-alignment design, regulatory consultation, mitigation design and implementation.
- **Husky Energy, Oil Operations (2016):** Field lead of wildlife team to North Saskatchewan Oil spill response. River and upland wetland bird, mammal, amphibians and reptile surveys; mitigation measures, deterrent deployment, impacted individual recovery and project advisement.
- **Pembina Pipeline, Crooked Lake Extension (2016), Kakwa to Lator (2018), Wapiti to LaGlace (2019):** Field lead on pre-construction surveys on raptor nests, breeding bird habitat quality, trumpeter swan, grizzly and black bear den surveys and caribou habitat assessments. Environmental Field Reports, Wildlife Management Plan, TFAs, C&R etc.
- **Fortis Alberta (2018-2020):** Field surveys, advising and reporting through AEP Sensitive Species Survey on EZE applications.
- **St Mary's Irrigation District, Irrigation outflow (2016):** Field surveys and reporting on Pre-Development Species at Risk Inventory, Environmental Field Reports, FWMIS records, ACIMS.
- **Suncor Energy, Fort Hills Site (2012-2014):** Field lead on pre-construction migratory bird nest searches and monitoring (MBCA compliance) for site and mine expansion and compensation lake. Researched, designed and analysis of innovative remote surveying unit of migratory waterfowl.

SELECTED PUBLICATIONS AND TECHNICAL REPORTS

Fisher, C. and J. Acorn. 1998. Birds of Alberta. Lone Pine Publishing. Edmonton, AB.

Pattie, D. and C. Fisher. 1999. Mammals of Alberta. Lone Pine Publishing. Edmonton, AB.

Fisher, C., A. Joynt, and R. Brooks, 2007. Reptiles and Amphibians of Canada. Lone Pine Publishing. Edmonton, AB.

Fisher, C. and J. Hornung. 2014. Remote migratory waterbird monitoring at McClelland Lake Wetland Complex during the Fall of 2014. Report submitted to the McClelland Lake Wetland Complex Sustainability Committee (MLWC SC).

Fisher, C. and J. Hornung. 2013 Migratory waterbird monitoring and ground truthing assessment at McClelland Lake Wetland Complex, Fall 2013. Report submitted to the McClelland Lake Wetland Complex Sustainability Committee (MLWC SC).

Fisher, C. 1999. Feasibility of Northern Leopard Frog Translocations in Alberta. Alberta Environment, Fisheries and Wildlife Management Division, Edmonton, AB. 30pp.

CERTIFICATES AND TRAINING

- Alberta Construction Safety Association (CSTS), Pipeline Construction Safety Training (PCST) Bear Awareness Training, Wildlife Awareness, Argo Training, Standard First Aid - Level C CPR and AED, H2S Alive, WHMIS, Transportation of Dangerous Goods
- Commercial Liability Insurance
- Errors and omissions Insurance