

## EDUCATION

University of Alberta

M.Sc. 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 - present** **Senior Wildlife Biologist** - Trace Associates Ltd, Applied Aquatic Research Ltd, Golder Associates, Barr Engineering and Environment, Armada Environmental Inc.

- Development of mitigation measures regarding compliance and regulatory requirements of the Migratory Birds Convention Act and the Alberta Wildlife Act with pipeline, wellsite, solar and residential development construction clientele and oil spill responses.
- Wildlife specialist for pipeline projects with multiple stake-holders; role includes managing and coordinating fieldwork programs, organizing data collection, compiling and writing technical reports and regulatory consultation.
- Conduct pre-disturbance site assessments for baseline data to inform decision making processes and reporting recommended methods and mitigation for site development including any set back distance requirements for wildlife, wetlands and watercourses.

**1992-2015** **Wildlife Field Ecologist** - Independent Consultant for Golder Associates, Armada Environmental, Trace Associates, Westworth and Associates, Aspen Environmental, NAWMP

- Contribution to many environmental impact assessments addressing mitigating and monitoring sensitive wildlife features. Significant experience leading field surveys for federally (*i.e.*, *Species at Risk Act [SARA]*) and provincially listed species.

**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

- **Bird Populations:** breeding bird (BBS) and sensitive species inventories (nocturnal owl, nocturnal marshbird, riverine and riparian waterbird, waterfowl, shorebird, raptor), bio-acoustic birdsong interpretation, behavioral nest/breeding evidence surveys/sweeps and monitoring for Migratory Birds Convention Act (MBCA) and Alberta Wildlife Act (AWA), Species at Risk Act (SARA) compliance.
- **Oil Spill Response:** wildlife surveys, planning and forecasting wildlife use patterns with mitigation options to minimize impacts to wildlife.
- **Mammal Populations:** bear den surveys, snow-tracking surveys, aerial surveys, line transects (Distance sampling), small mammal capture and safe-handling, kill-site analysis.

- **Herptile Populations:** acoustic & breeding evidence amphibian surveys, reptile presence & hibernacula surveys, amphibian capture & relocation.
- **Species at Risk & Biophysical Assessment:** SAR-specific surveys and critical wildlife habitat assessments.
- **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

- **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):** Field lead on pre-construction surveys on raptor nests, breeding bird habitat quality, bear dens and caribou habitat. Environmental Field Reports, Wildlife Management Plan.
- **Blackspur Oil Corporation (2016):** Field surveys, advising and reporting from grassland surveys on pipeline and drill pad alignment. Pre-construction Wildlife Assessment.
- **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.
- **Pembina Pipeline, Namao to RFS (2015):** Lead on pre-construction migratory bird nest searches and monitoring (MBCA compliance) along pipeline route between Namao and Redwater, AB.
- **Enbridge, Woodland Pipeline Extension (2014):** Field lead on pre-construction migratory bird nest searches and monitoring (MBCA compliance) along pipeline between Lac la Biche & Fort Sask, AB.
- **TransCanada, Simonette Lateral Loop & Dawson Creek Extension (2014):** Breeding Bird Surveyor, Amphibian surveys and Yellow Rail surveys along proposed pipeline route through foothill and boreal forest in AB and BC.
- **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 compenstion 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).

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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.

#### **SELECTED 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, Canadian Pleasure Craft Operator
- Commercial Liability Insurance

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