
HELEN DAVIS, R.P.BIO.

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PROFESSIONAL AND ACADEMIC QUALIFICATIONS

REGISTERED PROFESSIONAL BIOLOGIST, College of Applied Biology (British Columbia)

MASTER OF SCIENCE in Biological Sciences, Simon Fraser University, Burnaby, BC, 1996

BACHELOR OF SCIENCE in Animal Biology, University of British Columbia, Vancouver, BC, 1992

SUMMARY OF EXPERIENCE

My career as a Registered Professional Biologist has focussed on developing and implementing conservation programs for a wide variety of wildlife, concentrating primarily on research and conservation of black bears, grizzly bears, and species at risk. My research on bears has included telemetry studies of black bears (i.e., habitat relationships, winter denning requirements), grizzly bears and regional strategies to minimize impacts of bear viewing on both black and grizzly bears.

Much of my work on species at risk has focused on developing and implementing conservation programs. I have conducted multi-year research projects on American badgers and Western Screech-owls as well as Resources Information Standards Committee-compliant surveys for Great Basin spadefoots, gopher snakes, western rattlesnakes and Northern Goshawks. Much of the species at risk work that I have completed has been for First Nations' clients.

I have also participated in various habitat modelling exercises for wildlife. I have assisted in the development of predictive models for bears, badgers and Western Screech-owls and been a member of a team of species experts reviewing co-location scenarios for old growth reserve areas for coastal BC.

I have considerable experience successfully initiating, generating funding for, and completing, many large-scale projects and have produced both peer-reviewed publications as well as informative publications for the public from these projects. Creating effective extension and communication strategies that help achieve conservation goals has been a particular emphasis of my work. I enjoy landowner contact programs and I have successfully negotiated stewardship agreements between provincial government and municipal governments, and between stewardship societies and private landowners.

I have extensive experience with ecosystem assessments, population inventory, the capture, immobilization and handling of live animals, and ground and aerial radio-telemetry. I am proficient at using various methods of habitat assessment and measurement, particularly the BC biogeoclimatic ecosystem classification system, and in the utilization of Microsoft programs and ArcGIS.

RELEVANT EXPERIENCE

Most of the following projects have been conducted as a Senior Biologist with Artemis Wildlife Consultants, where I am a founding partner.

2011-2019: **Biologist** creating and mapping zoology element occurrences for species at risk across BC for the BC Conservation Data Centre. Utilized NatureServe methodologies, Biotics 5.

2014-2019: **Biologist** investigating methods to conserve and enhance winter dens for black bears in the Jordan River and Campbell River watersheds. Funded by the Fish and Wildlife Compensation Program-Coastal, BC Timber Sales and TimberWest Forest Products Ltd.

2017: **Biologist** reporting on the use and promotion of bear spray and electric fencing to reduce human-grizzly

bear conflicts. Conducted for the Grizzly Bear Foundation.

2016-2017: **Biologist** soliciting, compiling and summarizing information to identify priority wildlife species for program investments in various coastal watersheds for the Fish and Wildlife Compensation Program-Coastal (14 watersheds). Consulted with federal and provincial government biologists, private consultants, researchers and conducted research into potential species at risk in watersheds. Subcontracted by Compass Resource Management Ltd.

2016: **Coordinator** of badger gene flow project. Conducted extensive outreach program to gather badger sightings in target study area. Coordinated field effort. Pioneered innovative hair collection methods. Partners

included Ministry of Environment, Okanagan Nation Alliance and UBC-Okanagan.

2014: **Project co-leader** conducting Northern Goshawk and bat inventories in the Clayton Falls watershed. Funded by the Fish and Wildlife Compensation Program-Coastal.

2014: **Lead biologist** conducting surveys for coastal Western Screech-owls. Conducted for BC Ministry of Environment (MOE), Victoria, BC.

2010: **Technician** live-trapping fishers as part of radio-telemetry research project at proposed Site C dam. Subcontracted by Keystone Wildlife Research Ltd.

2010: **Lead negotiator** between the BC Ministry of Environment and local governments (municipal, city, regional district) to protect habitat of species at risk through stewardship agreements (4 were completed).

2009-2010: **Consultant**: soliciting, compiling and summarizing information to identify priority wildlife species for program investments in various coastal watersheds. Consulted with partner agencies (MOE, Environment Canada). Attended public and First Nations consultation meetings for watershed planning. Conducted for the Bridge Coastal Restoration Program (BCRP, now FWCP-Coastal), Burnaby, BC.

2008-2009: **Domain expert** for American black bears for a MARXAN modelling project to identify overlap between the old-growth habitat requirements of focal species to optimally select old growth reserve areas at the landscape scale. Conducted for the Ecosystem Based Management Working Group.

2005-2008: **Principal investigator** for inventory, research, and extension program aimed at conserving Western Screech-owls (COSEWIC Threatened species) along the Shuswap River. Responsible for developing objectives and all aspects of project coordination and

implementation, including preparation of successful funding applications. Funded by BCRP, Habitat Stewardship Program, and the Forest Science Program of the Forest Investment Account.

2005-2008: **Project co-leader** for species at risk surveys. Conducted RISC-compliant presence/not detected inventories of Great Basin spadefoots, western rattlesnakes, gopher snakes, Western Screech-owls, and badgers for the Okanagan Indian Band, Vernon, BC. Secured funding from the IRF.

2004-2007: **Project co-leader** for species at risk surveys. Conducted RISC-compliant presence/not detected inventories of Great Basin spadefoots, gopher snakes, Western Screech-owls, and badgers for the Spallumcheen Indian Band, Enderby, BC. Secured funding from the IRF.

1999-2004: **Extension specialist** for Thompson-Okanagan Badger Project. Responsible for developing extension priorities for conservation strategies, conducting target group consultation, production of extension materials, and project delivery.

1997-1999: **Project biologist** collecting bear hair samples from the range of Kermode bears in BC. Conducted for Western Forest Products, Vancouver, BC.

1992-1995: **Project biologist** for Nimpkish Black Bear Study. Responsible for all aspects of the denning portion of the study design, data collection, analysis and reporting. Also responsible for immobilization, radio-collaring, and monitoring of bears, habitat classification and description, behavioural data collection, plant identification, and forestry interpretations. Conducted for the MELP, Victoria, BC.

REPORTS & PUBLICATIONS

- Davis, H. 1996. Characteristics and selection of winter dens by black bears in coastal British Columbia. M.Sc. Thesis. Simon Fraser University, Burnaby, BC.
- Davis, H. 2014. Ensuring sustainability of least weasel populations. Prepared for the Habitat Conservation Trust Foundation, Victoria, BC.
- Davis, H. 2015. Proposed bear-viewing strategy for central coast Conservancies. Prepared for Habitat Conservation Trust Foundation, Victoria, BC.
- Davis, H. and R. J. Cannings. 2008. Diet of Western Screech-owls in the interior of British Columbia. *British Columbia Birds* 18:19-22.
- Davis, H. and F. Doyle. 2014. Surveys of coastal Western Screech-Owls. Prepared for BC Ministry of Environment, Victoria, BC.
- Davis, H., A. N. Hamilton, A. S. Harestad and R. D. Weir. 2012. Longevity and reuse of black bears dens in managed forests of coastal British Columbia. *Journal of Wildlife Management* 76:523-527.
- Davis, H., and A. S. Harestad. 1996. Cannibalism by black bears in the Nimpkish Valley, British Columbia. *Northwest Science* 70:88-92.
- Davis, H. and R. D. Weir. 2010. Home ranges and spatial organization of Western Screech-owls in southern British Columbia. *Northwestern Naturalist* 91:157-164.
- Davis, H., and R. D. Weir. 2008. Western Screech-owl conservation along the Shuswap River. Prepared for Bridge-Coastal Restoration Program, Burnaby, BC.
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- Davis, H., R. D. Weir, A. N. Hamilton, and J. A. Deal. 2006. Influence of phenology on site selection by female American black bears in coastal British Columbia. *Ursus* 17:41-51.
- Davis, H., D. W. Wellwood, and L. M. Ciarniello. 2002. "Bear Smart" Community Program: background report. Prepared for BC Ministry of Environment, Lands and Parks, Victoria, BC.
- Cannings, R. J., and H. Davis. 2007. Status of the Western Screech-owl *macfarlanei* subspecies (*Megascops kennicottii macfarlanei*) in British Columbia. BC Ministry of Environment. Wildlife Working Report No. WR-112. Victoria, BC.
- Kyle, C. J., R. D. Weir, N. J. Newhouse, H. Davis, and C. Strobeck. 2004. Genetic structure of sensitive and endangered northwestern badger populations (*Taxidea taxus taxus* and *T. t. jeffersonii*). *Journal of Mammalogy* 85:633-639.
- MacHutchon, A. G., S. Himmer, H. Davis, and M. Gallagher. 1998. Temporal and spatial activity patterns among coastal bear populations. *Ursus* 10:539-546.

PAST TASK FORCES/RECOVERY TEAMS/BOARDS

- Representative of the College of Applied Biology for a Species at Risk Task Force (2009)
- Public representative on the board of BC Hydro's Fish and Wildlife Compensation Program-Coastal (2012-2015)
- Member of the *jeffersonii* Badger Recovery Team and Communication/Extension Recovery Implementation Group
- Past member of the *macfarlanei* Screech-Owl Recovery Team

CERTIFICATES & DESIGNATIONS

- ArcGIS: Introduction to GIS and ArcGIS: GIS Data & Analysis (Camosun College; 2013-2014)
 - "Reliability" clearance with Canadian Industrial Security Directorate
 - First Aid certifications: Wildlife First Responder (90 hour), OFA Level 1 First Aid with Transportation Endorsement, CPR-C and AED
 - Certified Bear Viewing Guide (Commercial Bear Viewing Association of B.C.)
 - Bear Awareness and Safety Training
 - Restricted Operator Certificate Marine (ROC-M) Radio License
 - Snowmobile Operators Course
 - Firearms Licence
 - Vaccinated against rabies
 - Serving it Right certification
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