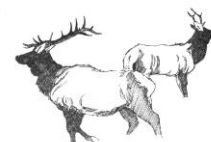


CURRICULUM VITA



DR. EVELYN HUNTER MERRILL

Current address:

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EDUCATION

1987	Ph.D., University of Washington, Seattle
1978	M.Sc., University of Idaho, Moscow
1974	B.A., St. Lawrence University, Canton, New York
1973	University of Vienna, Vienna, Austria
1969	Sorbonne University, Paris, France

RESEARCH INTERESTS

Research interests include foraging and nutritional ecology of ungulates, trophic interactions among plants, ungulates and carnivores, and land use impacts on wildlife populations. Current research uses modeling to address how landscape patterns influence predator-prey behaviours and disease spread.

ACADEMIC POSITIONS

Professor	2007- present	Dept. of Biological Sciences, Univ. of Alberta. Tenured faculty. 50% teaching & service, 50 % research.
Associate Professor	1999-2007	Department of Biological Sciences, University of Alberta. Tenured faculty. 50% teaching & service, 50 % research.
Associate Professor	1996-1999	University of Wisconsin-Stevens Point, Stevens Point, WI. Tenured faculty. 50% teaching, 25% outreach & 25% GIS lab coordinator.
Assistant Professor	1994-1999	Univ. of Wisconsin-Stevens Point, Stevens Point, WI. Tenure-track faculty. 25% teaching, 25% research.
Assistant Professor	1990-1994	Dept. of Zoology and Physiology, Univ. of Wyoming, Laramie, WY. Tenure-track faculty. 50% teaching and service, 50% research.
Visiting Professor	1986-1989	Dept. of Zoology and Physiology, Univ. of Wyoming, Laramie, WY. Lecturer. 100% teaching.
Teaching Assistant	1984	Biology 442- Mammalogy, Univ. Washington, Seattle, WA.
Affiliate Professor	1983-1984	San Francisco State Univ. Wildlands Institute
Project Leader	1982-1983	School for Field Studies, Field studies program, Cambridge, MA.
Teaching Assistant	1982-1986	University of Washington, Seattle, WA.
Graduate Research	1975-1978	University of Idaho, Moscow, ID.

OTHER POSITIONS

Wildlife Research Biologist	1979-1982	Idaho Dept. of Fish and Game, Soda Springs, ID.
Wildlife Biologist	1979	Bureau of Land Management, Idaho Falls, ID.
Wildlife Biologist	1978	Bureau of Land Management, Washington, DC.
Wildlife Technician	1975	Glacier National Park, MT.

AWARDS & RECONITION

Alberta Chapter of The Wildlife Society	2013	William Rowan Distinguished Service
The Wildlife Society	2012	Wildlife Society Fellow
Recognition Award	2011	Alberta Trappers Association
Dedicated Service Award	2011	Alberta Chapter, The Wildlife Society
Induction	2011	Boone and Crockett: Professional Member
Honorable mention	2008	Honorable mention: best paper in the journal <i>Landscape Ecology</i> (see publications) in 2008
Improv lecture, winner	2005	Alberta Student Chapter of The Wildlife Society, University of Alberta
Outstanding College Faculty Member	1998	College of Natural Resources, University of Wisconsin-Stevens Point: voted by students in entire college (~1200 students).
University Teaching Award	1997	University of Wisconsin-Stevens Point
Appreciation Award	1996	Milwaukee Zoological Society
Sponsorship Award	1993	WY Student Chapter of The Wildlife Society
Faculty Growth Award	1992	University of Wyoming

EDITOR-IN-CHIEF2013-2015 *Journal of Wildlife Management***EDITORIAL BOARDS**

2012-2014 *PlosOne*
 2010-2012 *Journal of Wildlife Management*
 2009-2010 *Wildlife Research*
 2008-2010 *Wildlife Professional*
 2002-2004 *Journal of Range Ecology & Management*
 1996-1998 *Journal of Wildlife Management*

INVITED REVIEWSResearch grants

NERC, UK	2012	PDF Scholarships
Biodiversity student grants	2002-2012	Alberta Conservation Association, AB.
Grant Eligible Conservation Grants	2005-2011	Alberta Conservation Association, AB.
Discovery grants	2003-2010	Natural Sciences and Engineering Research Council of Canada.
Ecology program	2009	US-Israel Bi-national Science Foundation
Ecology program grant (2)	2008	National Science Foundation, USA
Research grants	2006	Research Council of Biological Sciences and Environment, Academy of Finland.
Student scholarship grants	2006	Cannon-US. National Parks, ID.
Research grants	2003, 2005	Canadian Circumpolar Institute, Edmonton, AB.
Research grants	2003	South African Resource Foundation, Pretoria.
Research grants	1992, 1994	National Science Foundation: Ecology program, Washington, DC.
Student scholarship grants	1996, 1998	Milwaukee Zoological Society, Milwaukee, WI
National Park research grants	1990-1993	UW-National Park Service Center, Laramie, WY

Invited program/committee reviews

PhD external examiner	2013	Swedish University of Agricultural Sciences
Tenure external reviewer	2012	Iowa State University
PhD external examiner	2011	University of Saskatchewan
Ungulate Magt in Parks	2011	The Wildlife Society- Technical report
Faculty tenure review	2010	Biological Sciences, University of Calgary
Committee member	2007-2010	Alberta Ingenuity: Planning and Policy for TSE Surveillance and Control
Chair	2008	Alberta Fish & Wildlife, Wolf research program assessment
Committee member	2008	Lab de Biometrie et Biologie Evolutive, Univ. Claude Bernard-Lyon 1. PhD. Dissertation examiné.
Committee member	2007-2008	Planning and Priority Committee: CWD Surveillance, Alberta Prion Research Institute.
Technical reviewer	2005	Wildlife Resource Monitoring Program, US Forest Service, Alaska Region
Scientific committee	2005	Elk Monitoring Review Panel, Jasper National Park, Jasper
International Expert Panel on CWD in Canadian Wildlife	2004	Canadian Cooperative Wildlife Health Centre, University of Saskatchewan, Saskatoon.
Tenure & promotion review	2002	Washington State University, Natural Resources, Pullman, WA.
Conference/Meeting Organization		
Chair, Annual Meeting	2013	Canadian Section of The Wildlife Society, Canmore, AB, Mar 8-10
Co-chair, Special symposium	2010	ICCB-Society for Conservation Biology Annual Meeting, Edmonton, AB 4 July
Co-chair: Program committee	2010	Canadian Section Annual Meeting, Edmonton, AB, 3 July
Chair: Program committee	2009	Annual Mtg, Alberta Chapter of The Wildlife Society, Edmonton, AB 6-8 Mar
Program committee, member	2008	Canadian Section of The Wildlife Society, First annual meeting, Gimli, MB. 16 Aug.
Co-organizer: Workshop	2008	Animal movements in heterogeneous landscapes: US-Landscape Ecology, Madison, WI. 8 Apr.
Co-organizer: Special session	2004	Predator-Ungulate Dynamic: Wildlife Society Conference, Calgary, AB. 20 Sep.
Organizer: Annual meeting	2003	International Elk Research Group: National Science Foundation: Annual meeting, Nordegg, AB. 23 Nov.
Organizer: Annual meeting	2000-2007	Central East Slopes Elk and Wolf Projects, University of Alberta, Edmonton, AB.
Organizer: Plenary session	2001	Northwest Section of The Wildlife Society, Banff, AB. 23 Mar.
Chair: Steering committee	1999	Ungulate Ecology and Management: Integrating Across Scales Conference, Nelson, BC. 24-28 Aug.
Member: Steering committee	1997	Fourth Midwest Oak-Savanna and Woodlands Conference, Madison WI. 30 Jul-1 Aug.
Member: Steering committee	1993	Wyoming Chapter of The Wildlife Society, Annual meeting, Casper. 6 Dec.

Conference Session Chair

- 2010 Society for Conservation Biology- Special Symposium on sustainable use and hunting. Edmonton, AB, 4 July 2010.
- 2009 Alberta Chapter of The Wildlife Society, Plenary Session, Edmonton, AB, 6 Mar
- 2008 Canadian Section of The Wildlife Society, Gimli, MB, 16 Mar: Plenary session
- 2008 Alberta Chapter of The Wildlife Society, Red Deer, AB, 1 Mar.
- 2006 Ya Ha Tinda Science Workshop, Introductory remarks, Parks Canada, Sundre, AB. 2 Feb.
- 2004 6th workshop: Montane Ecosystem Science, Parks Canada, Sundre, AB. 20 Jan.
- 2003 5th workshop: Bow Valley Ecosystem Science, Parks Canada, Banff, AB. 21 Jan.
- 2002 Northwest Section of the Wildlife Society, Annual Meeting, Plenary Session, Banff, AB. 23 Mar.
- 2000 Annual Meeting of the Alberta Chapter of the Wildlife Society, Plenary Session Lethbridge, AB. 16 Mar.
- 1997 Annual Meeting of The Wildlife Society, Forest Bird Management Symposium, Snowmass, CO. 21-27 Sep.
- 1995 Western States and Provinces Joint Deer and Elk Workshop: deer and elk as ecosystem components. Sun Valley, ID. 24-26 May.

Positions in Professional Organizations

President	2013	Canadian Section, The Wildlife Society
Fellow	2012	The Wildlife Society
President-elect	2012	Canadian Section, The Wildlife Society
Chair, Aldo Leopold Award Committee	2012	The Wildlife Society
Co-Chair, Conservation Grants Subcommittee	2012	Boone & Crocket Club
Co-organizer, 1 st Student Conclave	2011	Canadian Section, The Wildlife Society
Chair, Jim McDonough Awards	2011	The Wildlife Society
Past President	2010-2011	Alberta Chapter, The Wildlife Society
Chair, Presidential nominations	2009	The Wildlife Society
President	2008-2009	Alberta Chapter of The Wildlife Society
Executive board member	2009-2010	Canadian Section, The Wildlife Society
President-elect	2007-2008	Alberta Chapter of The Wildlife Society
Past President	2007-2008	Canadian Section of The Wildlife Society
Nominations committee, Chair	2007-2008	Canadian Section of The Wildlife Society
Executive Board	2001-2002	Alberta Chapter of The Wildlife Society
Membership Chair	1999-2003	Alberta Chapter of The Wildlife Society
Selection Committee	2000	For Editor, <i>Journal of Wildlife Management</i>
Treasurer	1995-1996	Univ. Wisconsin-Stevens Point - Sigma Xi
Chair: Awards Committee	1992-1993	Wyoming Chapter of the Wildlife Society
Resolutions and Position Statements, Chairperson	1990-1991	Wyoming Chapter of the Wildlife Society
Newsletter Editor	1988-90	Wyoming Chapter of the Wildlife Society

Professional Memberships

The Wildlife Society	since 1976
Canadian Section of TWS	since 2007
Alberta Chapter	since 1999
Wisconsin Chapter	1994-1999

Wyoming Chapter	1986-1994
Wildlife Disease Association	since 2008
Canadian Society of Ecology and Evolution	since 2006
Ecological Society of America	since 1988
International Association for Landscape Ecologists	since 1996
Rocky Mountain Elk Foundation – Life member	since 1985
Wild Sheep Foundation – Life member	since 2010
Society of Conservation Biologists	since 1993
Sigma Xi	since 1995

Referee for the following journals:

<i>Acta Theriologica</i>	<i>Natural Areas Journal</i>
<i>Conservation Biology</i>	<i>Northwest Science</i>
<i>Ecology</i>	<i>Science</i>
<i>Ecological Applications</i>	<i>Trans. Wisconsin Academy of Science</i>
<i>EcoScience</i>	<i>Tropical Ecology</i>
<i>Journal of Range Management</i>	<i>Wildlife Diseases</i>
<i>Journal of Wildlife Management</i>	<i>Wildlife Monographs</i>
<i>Landscape Ecology</i>	<i>Wildlife Society Bulletin</i>
<i>Ecography</i>	<i>Canadian Journal of Botany</i>
<i>PlosOne</i>	<i>Oecologia</i>

ACADEMIC COMMITTEES**University of Alberta**

Member	2011-2013	Science Advisory Selection Committee
Member	2011-2013	General Awards Committee- BioSciences
Chair	2009-2010	Biosciences Animal Use & Care Committee
Member	2008-2010	Univ. Animal Policy and Welfare Committee
Member	2009-2013	Field Research Activities Committee
Member	2008-2009	Faculty of Science: Kaplan Award Committee
Coordinator	2007-2009	Alberta Coop. Conservation Research Unit
Member	2008	Selection committee: Aquatic Biologist
Committee Member	2006-2011	Environmental Biology & Ecology
Committee Member	2005-2007	Student and Postdoctoral Award Committee
Committee Member	2006	Committee on Issues for Field Research at University of Alberta
Committee Member	2004-2008	Geographic Information Systems Advisory Committee
Committee Chair	2000-2004	Geographic Information Systems Advisory Committee
Committee Member	2000-2003	Learning Initiative Committee
Committee Member	2004-2012	Biological Sciences Animal Care Committee
Committee Member	2004-2005	New Interdisciplinary Science Building Committee
Committee Member	1999-2008	Ecology and Environmental Science Curriculum
Committee Member	1999-2005	Plant Biology Research & Curriculum Committee

University of Wisconsin-Stevens Point

Chair	1994-1999	GIS Committee, College of Forestry
Member	1994-1999	Wildlife Curriculum Committee
Member	1995-1997	Student Scholarship & Awards
Faculty representative	1995-1997	Library Service Committee

University of Wyoming

Chair	1990-1994	GIS Committee
Member	1990-1994	Undergraduate Curriculum Committee

STUDENT ADVISING

2007-2010	<i>Advisor:</i> Ecology program	University of Alberta
2006	<i>Mentor:</i> Outreach program	WP Wagner High School, Edmonton
1990-1994	<i>Advisor:</i> Student Chapter of The Wildlife Society	University of Wyoming

PROFESSIONAL DEVELOPMENT ACTIVITIES

2012	Movement Modeling Workshop: Hedmark University, Evanstad, Norway
2010	Institute for Complex Data Structure: statistical workshop, Montreal, CA 4-5 Mar
2009	Program Mark Workshop, The Wildlife Society, Monterey, CA, 24 Sept
2008	Occurrence and Detection Workshop, D. McKenzie, Edmonton, AB 21-26 Oct
2008	Infectious Disease Modeling Workshop. Dept. of Math & Stats, Univ. Alberta, Edmonton, AB. 1-13 May.
2008	Landscape Genetics. Landscape Ecology Assoc, Madison, WI., 7 Apr.
2006	Alberta Veterinary Research Institute Workshop, Edmonton, AB. 27 Jan.
2006	Crossing Boundaries: Making partnerships work. Univ. Alberta, 16-17 Mar.
2005	GLIM/GAM workshop in habitat modeling, Rideralp, Switzerland, 23-27 Aug.
2003	University of Alberta Animal Care Course- Part I. Edmonton, AB. 9 Apr.
2003	Survival Analysis Workshop, Christchurch, New Zealand. 5 Dec.
2001	Photography and Videography in Resource Assessment Workshop, Amherst, MA. 16-18 May.
1999	Geostatistics Workshop, Rutgers University, Princeton, NJ, 22-26 Jun.
1998	ArcInfo. Course, Agric. & Life Sciences, U. Wisconsin-Madison, 9-12 Jun.
1997	Chemical Immobilization of Animals and Safe-capture Course, Univ. Wisconsin-Stevens Point. 25-26 Oct.
1997	GIS and Internet Instruction Workshop: <i>Integrating dynamic geography into the undergraduate classroom.</i> University of Wisconsin-Stevens Point, Aug. 18.
1996	University of Wisconsin-Stevens Point Personnel Development Award: StatSci Splus Statistical Workshop: <i>Linking Splus and GIS</i> , Houston, TX. 15-19 Jan.
1993	Biomodeling Workshop, Selected participant, National Science Foundation, University of Montana, Missoula, MT.
1993	Resolving Natural Resource Conflict: a meeting of the minds. Conflict Resolution Workshop, Casper, WY.
1993	Biodiversity Challenge Workshop, Bureau Land Management, Cheyenne, WY.
1991	U.S. Forest Service New Perspectives University Program, U.S. Forest Service-Colorado State University.
1991	Ecology and Planning Workshop: The Landscape Dimension, Sacramento, CA.

CURRENT CERTIFICATIONS

Marine radio certification	2012	Edmonton Marine Squadron
Scuba diving certification	2009	PADI
Horse packing clinic	2006	Wilmore Wilderness Foundation
Resident furbearer trapping license	2003	Alberta Environment
Firearms instruction certification	2000	Alberta Environment
Certified wildlife biologist	2000	The Wildlife Society

COURSES TAUGHT

	# Semesters	# Students	# Credits
Undergraduate Courses			
<u>University of Alberta (1999- present)</u>			
Conservation biology (Bio 468)	2	12-18	3
Diversity of life (Bio 108)	8	315-360	3
Landscape ecology (Bio 471)*	12	11-15	3
Landscape ecology & applications (Bio 571)*	2	11-15	3
<u>University of Wisconsin-Stevens Point (1994-1999)</u>			
Introduction to Fish & Wildlife Management*	3	25-30	3
Wildlife Techniques*	8	25-30	3
<u>University of Wyoming (1986-1994)</u>			
General Biology	1	350	3
Wildlife Management (Game Biology)*	4	65-70	3
Vertebrate Natural History*	2	35-40	4
Introduction to Birds & Mammals*	2	35-40	2
Natural History of Fishes, Amphibians & Reptiles*	2	45-40	2

* Lab courses

	# Semesters	# Students	# Credits
Graduate Courses and Seminars			
<u>University of Alberta (1999- present)</u>			
Biol 633: Models for animal movement	1	8	1
Biol 468: Conservation Biology	2	20	3
Biol 633: Habitat Ecology	1	8	1
Biol 571: Landscape Ecology	9	12	3
Biol 633: Herbivore Nutritional Ecology	1	6	1
Biol 564: Introduction to GIS and GPS	1	7	1
<u>University of Wisconsin-Stevens Point (1994-1999)</u>			
Issues of Scale In Ecology	1	10	2
Advanced Statistics	1	8	0.5
Biodiversity and Conservation	2	15	2
Plant-Herbivore Dynamics	1	12	2
<u>University of Wyoming (1986-1994)</u>			
Wildlife Habitat Ecology	3	13-16	2
Spatial Statistics And Modeling	1	12	2
GIS Applications in Environmental Modeling	1	11	2
Riparian Ecology & Management Seminar	1	8	1
Game Harvest Management	1	14	1
Fire Ecology Seminar	1	12	1
Multivariate Statistics Seminar	1	8	1

Undergraduate Independent ResearchUniversity of Alberta

2013	Kerri Krawchuk,. Biol. 499. Honors thesis. Polar bear habitat selection
2012	Stephanie Coates, Comparison of wolf diets at Ya Ha Tinda, 2005 and 2012. Parks Canada Report, 15 pp.
2009-2010	Brett Howard, Bio 499. Honors Thesis. Prey space use in a multi-predator system. Dep. Biol. Sciences, Univ. Alberta.
2008-2009	Patrick Jones, Bio 499. Honors Thesis, Areas-intensive search patterns of ungulate grazing assemblages, AB. Dep. Biol. Sciences, Univ. Alberta

2008-2009	Barry Norbert, Bio 499. Honors Thesis, Habitat selection of deer in CWD areas, AB. Dep. Biol. Sciences, Univ. Alberta
2007-2008	Crystal Riczu. Bio 499. Honors Thesis. Is hunter success related to wolf reintroduction in Idaho. Dep. Biol. Sciences, Univ. Alberta
2007-2008	Chelsea Flaig. Bio 499. Honors Thesis. Coyote diets related to deer availability. Dep. Biol. Sciences, Univ. Alberta
2006-2007	Brandi Mogge. Bio 499. Honors Thesis. Do cougars and wolves overlap at bait sites. Dep. Biol. Sciences, Univ. Alberta
2004-2005	Graeme Andrew. Bio 499. Honors Thesis. Do wolves eat prey in proportion to availability? Dep. Biol. Sciences, Biology 499 Student Award
2003	Tammy McMullen. Bio Univ. Alberta, 498. Honors Thesis. Environmental and biological factors contributing to wolf home range size. Dep. Biol. Sciences.
2000-2001	Kim Tanasichuk. Biol 499. Honors Thesis. Effects of light intensity & litter allelopathy on seed germination of 3 grasses. Dep. Biol. Sciences, Univ. AB

Short-courses:

2011	Applied Ecology: Resource selection functions. International Research School in Applied Ecology, Evanstat, Norway. 9-12 August 2011.
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GRADUATE STUDENTS & POST-DOCS

<u>Year</u>	<u>Student</u>	<u>Thesis – Project Topic</u>	<u>Degree</u>
<u>University of Alberta (in progress)</u>			
2013	Kerri Krawchuk	Comparison of sympatric wolf and cougar ecology	MSc
2012	Jodi Berg	Elk calving at Ya Ha Tinda	PhD
2012	Peter Smolko	Fire-habitat relationships of <i>Cervus elaphus</i>	PhD
2010	Andrew Geary	Habitat relationships of elk at Mt. St. Helens	MSc
2009	Alexei Potopov	Epidemiological modeling of deer of CWD	Research Associate
<u>University of Alberta (completed)</u>			
2012	Barry Norbert	CWD: modeling movement corridors. <i>Current position:</i> AB Fish & Wildlife	MSc
2011	Lindsay Glines	Grassland vegetation dynamics at Ya Ha Tinda. <i>Current position:</i> Saskatchewan Environment	MSc
2011	Peter Knamiller	Wolf summer predation in AB. <i>Current position:</i> Wildlife Technician, Univ. Alberta	MSc
2010	Tom Habib	Ecology and management of white-tailed deer and mule deer of east-central Alberta in relation to chronic wasting disease. <i>Current position:</i> AB Biodiversity Monitoring Program	MSc
2010	Darcy Visscher	Trade-offs between risk and reward at multiple scales: A state-dependent approach. <i>Current position:</i> Instructor, Kings College	PhD
2009	Barry Robinson	Foraging-predator avoidance trade-offs made by Migrant and resident elk (<i>Cervus elaphus</i>) on their sympatric winter range. <i>Current position:</i> PhD Univ. Alberta	MSc
2009	Heather McPhee	Kill site selection and attack rates of wolves in heterogeneous environments in west central Alberta. <i>Current position:</i> Environmental consultant	MSc

2009	Erin Rees	Modeling CWD spread in SK and AB. <i>Current position:</i>	PDF
		Professor, Laval University	
2009	Nathan Webb	Density, demography, functional response of wolf population in central Alberta, Canada. <i>Current position:</i> Alberta Carnivore Biologist	PhD
2008	Phil DeWitt	Ungulate guild dynamics in aspen parklands <i>Current position:</i> Environment Consultant, Matrix Solutions	MSc
2007	Maria Didkowsky ¹	Foraging behavior of ungulates in aspen-prairie. <i>Current position:</i> Parks Canada	MSc
2007	Hannah McKenzie ¹	Wolf movement responses to on linear features. <i>Current Position:</i> PhD program at Univ. Alberta	MSc
2006	Mark Hebblewhite	Wolf predation on elk foraging and migration. <i>Current Position:</i> Assoc. Professor, Univ. Montana, Missoula	PhD
2005	Jacqui Frair	Cumulative effects of forestry on elk. <i>Current position:</i> Assoc. Professor, SUNY, Syracuse	PhD
2004	James Allen	RSF stratification based survey methods. <i>Current position:</i> Head Biologist, Game and Priority Species, SRD, AB.	MSc
2004	Stephen Hamilton	Effects of habitat on bison in Wood Buffalo NP. <i>Current position:</i> Biologist, Alberta Conservation Association	MSc
2003	Megan Watters	Effects of seasonal grazing on grassland soils. <i>Current position:</i> Environmental consultant, Edmonton, AB.	MSc
2003	Leslie McInenly	Seasonal grazing on montane rough fescue. <i>Current position:</i> Minnesota Dep. Conservation	MSc
2003	Daniel Fortin	Foraging ecology of elk. <i>Current position:</i> Professor, Univ. Laval, QC.	PDF

University of Wyoming (Completed)

1996	Tom Kohley ¹	Habitat modeling approaches in Gap Analysis	MSc
1995	Greg McDaniel	Deer ecology on Devils Tower National Monument	MSc
1995	Sean Kelly	Elk and cattle impacts on riparian areas, Idaho	MSc
1993 ¹	Doug McWhirter ¹	Winter foraging ecology of bighorn sheep	MSc

¹Co-advisor

STUDENT SCHOLARSHIPS AND AWARDS

<u>Student</u>		<u>Year</u>	<u>Award</u>
Jodi Berg	PhD	2012	UA Doctoral Recruitment Scholarship
Andrew Geary	MSc	2011	QE II
Barry Nobert	MSc	2010	NSERC-CGS-M Scholarship, QE II
Patrick Jones	Ung	2009	NSERC-summer internship (undergraduate)
Lindsay Glines	MSc	2008	NSERC-CGS-M Scholarship, QE-II, Julia O'Hrapko Scholarship
Heather McPhee	MSc	2008	NSERC-PGS-M Scholarship, QE-II (declined)
Tom Habib	MSc	2008	NSERC-CGS-M Scholarship
Barry Robinson	MSc	2007	NSERC-CGS-M Scholarship, Teaching award 2008, 2009
Phil DeWitt	MSc	2007	Teaching Award 2007
Chris Garrett	MSc	2007	NSERC: Julie Payette Graduate Scholarship
Darcy Visscher	PhD	2006	NSERC- Industrial Scholarship, Teaching Award 2007, 2008

Nathan Webb	PhD	2007	Northwest Section of The Wildlife Society, Best Student Poster, Red Deer, Alberta.
		2006	J Gordin Kaplan Graduate Student Award
		2006	Louis D. Hyndman Sr. Award: Award for Animal Welfare in Research- Technical recipient
		2006	Graduate Student Award, Alberta Chapter of the Wildlife Society
Mark Hebblewhite	PhD	2006	NSERC Doctoral award: UA Science nomination,
		2006	Convocation Governor General's Award, <i>Nomination</i>
		2006	Martha Piper Graduate Award, Univ. Alberta
		2005	NSERC Post Doctoral Fellowship
		2005	Parks Canada National Ecological Integrity Merit Award
		2005	Andrew Stewart Graduate Award, Univ. Alberta
		2005	William Shostak Wildlife Award, Univ. Alberta
		2004	Best Post Award, Alberta Chapter of The Wildlife Society
Jacqui Frair	PhD	2006	Outstanding Dissertation Award: <i>Nomination</i>
		2005	Graduate Student Award, Alberta Chapter of the Wildlife Society
		2004	Best student paper, Alberta Chapter of the Wildlife Society
Hannah McKenzie	MSc	2005	Alberta Ingenuity Scholarship, NSERC PGS Scholarship
Maria Didkowsky	MSc	2005	Best student paper, Alberta Chapter of the Wildlife Society
		2004	NSERC PGS Scholarship
Megan Watters	MSc	2001	NSERC PGS Scholarship

GRADUATE SUPERVISORY COMMITTEE (member only)

<u>Name of Student</u>	<u>Degree</u>	<u>Begin</u>	<u>End</u>	<u>Name of Student</u>	<u>Degree</u>	<u>Begin</u>	<u>End</u>
				Christy Strocel	MSc	2005	2009
Meghn Anderson	MSc	2010	--	Gerry Kuzyk	PhD	2004	2008
Robert Found	MSc	2010	--	Ian Whittaker	MSc	2004	2008
Xiaofeng Ruan	PhD	2010	--	Marg Glasgow	MSc	2003	2006
				Emily Parks	MSc	2003	2005
Ulrike Schlaegel	PhD	2009	--	Amy Hurford	MSc	2003	2005
Tisa Bevan	MSc	2008	2011	Conrad Thiessen	MSc	2003	2006
Claudia Lopez	PhD	2008	2012	Nathan Varley	PhD	2003	2007
Marie Auger-Methe	PhD	2008	2012	Guangquan Su	PhD	2002	2004
Adam Blake	MSc	2007	2010	Heather Hinam	PhD	2002	2007
Michael Clark	MSc	2008	2010	Judy Muir	MSc	2002	2004
Daniel Fitzgerald	MSc	2007	2012	Angela Bogan	MSc	2001	2005
John Nagy	PhD	2006	2009	Evan Richardson	MSc	2001	2004
Kim Dawe	PhD	2006	2011	Elsebe Kloppers	MSc	2001	2004
Stephanie Nakada	MSc	2006	2009	Boyan Tracz	MSc	2001	2004
Kerri Lappin	MSc	2006	2009	Glynnis Hood	PhD	2001	2006
Todd Mahon	PhD	2005	2010	Megan Colon	MSc	2000	2002
Holger Spaedke	MSc	2005	2009	Nicole Koper	PhD	2000	2004

CONTRACTS & GRANTS

<u>Received</u>		<u>Total Amount</u>
2013-2014	Ya Ha Tinda calf study, SCI- International	\$22,000
2013-2014	Ya Ha Tinda calf study, Northern AB Chapter-SCI	\$2,000
2013-2014	Ya Ha Tinda calf study, Alberta Sports, Park & Recreation	\$4,485
2013-2014	Ya Ha Tinda calf study, Alberta Conservation Association	\$20,000
2012-2013	Chronic Wasting Disease: Experiments, Alberta Conservation Association	\$32,000
2012-2013	Long-term dynamics of the Ya Ha Elk Herd – Alberta Conservation Association	\$25,000
2012-2013	Wolf Scat Analysis: Banff National Park	\$4,800
2012-2013	Herbicides effects on elk forages at Mount St. Helens	\$23,000
2011-2016	Ecological processes in heterogeneous landscapes: disease and predation – <i>NSERC Discovery</i>	\$190,000
2011-2012	Effects of forestry herbicides and herbivory on habitat quality for big game in western Washington - <i>WA Commission of Pesticides</i>	\$39,737
2011-2012	Assessing Habitat Conditions for Elk Management at Mount St. Helens - <i>Rocky Mountain Elk Foundation</i>	\$13,230
2010-2012	Decision support tools for chronic wasting diseases. Alberta Innovates	\$117,780
2009-2011	Ya Ha Tinda elk & vegetation study. <i>Parks Canada</i>	\$75,150
2009-2010	Ya Ha Tinda elk & vegetation study. <i>Alberta Conservation Association</i>	\$20,000
2009-2010	Predicting CWD spread from SK into AB. <i>Alberta Conservation Association</i>	\$34,500
2009-2010	Wolf summer kill rates. <i>Safari Club International – Northern Alberta Chapter</i>	\$4,000
2009-2010	Wolf summer kill rates. <i>Alberta Conservation Association: Biodiversity Grant</i>	\$19,800
2009	Wolf summer kill rates. <i>Alberta Sport, Recreation, Parks & Wildlife Foundation</i>	\$4,700
2008-2009	Deer sightability and survey design in Alberta prairies. <i>Alberta Conservation Association</i>	\$39,742
2008-2009	Ya Ha Tinda elk vegetation study. <i>Alberta Conservation Association</i>	\$34,500
2008-2009	Pack-size and wolf predation. <i>Alberta Conservation Association</i>	\$37,200
2008-2009	Pack-size and wolf predation. <i>Safari Club International – Northern Alberta Chapter</i>	\$3,500
2008-2009	Pack-size and wolf predation. <i>Foundation of North American Sheep: Alberta Chapter</i>	\$30,000
2008-2009	Pack-size and wolf predation. <i>Foundation of North American Sheep: Eastern Chapter</i>	\$1,000 USD
2008-2009	Pack-size and wolf predation. <i>Alberta Professional Outfitters Association</i>	\$30,000
2008-2009	Pack-size and wolf predation. <i>Alberta's Conservation Collaboration Minister's Special License Program</i>	\$17,250
2007-2008	Pack-size and wolf predation. <i>Foundation of North American Sheep: International Chapter</i>	\$25,000 USD
2007-2008	Pack-size and wolf predation. <i>Foundation of North American Sheep:</i>	\$30,000

	<i>Alberta Chapter</i>	
2007-2008	Pack-size and wolf predation. <i>Alberta Professional Outfitters Association</i>	\$30,000
2007-2008	Ya Ha Tinda elk winter foraging. <i>Alberta Sport, Recreation, Parks & Wildlife Foundation</i>	\$5,000
2007-2008	Deer sightability and survey design in Alberta prairies. <i>Alberta Conservation Association</i>	\$34,742
2007-2008	Modeling for proactive management of CWD. <i>Alberta Conservation Association</i>	\$30,200
2007-2008	Modeling for proactive management of CWD. <i>Alberta Professional Outfitters Association</i>	\$2,000
2006-2010	Spatial spread of CWD: genetic and animal movement approaches with D.Colman & M. Pybus. <i>Alberta Prion Research Institute</i>	\$1,636,000
2006-2007	Wolf predation on ungulates with N. Webb. <i>Foundation North American Sheep</i>	\$10,000
2006-2007	Wolf predation on ungulates with N. Webb. <i>Alberta Professional Outfitters Society</i>	\$8,000
2006-2007	Alberta deer chronic wasting disease. <i>Alberta Professional Outfitters Society</i>	\$12,000
2006-2007	Deer movements to predict chronic wasting disease spread. <i>Alberta Conservation Association</i>	\$30,000
2006-2007	New field techniques for estimating wolf densities with N. Webb. <i>Alberta Conservation Association</i>	\$33,000
2006-2011	Linking species to ecosystems: predation mediated nutrient flows. <i>NSERC – Discovery Grant</i>	\$116,000
2005-2006	Mechanistic basis for landscape ecology of ungulates with P.Turchin, M.Turner, J.Fryxell, & M.S.Boyce. <i>Joint Ecology & Ecosystem Panels, National Science Foundation (USA)</i>	\$80,000 USD
2005-2007	Determining wolf predation from GPS-based movements with N. Webb. <i>Rocky Mountain Elk Foundation</i>	\$51,888
2005-2006	Habitat use and population monitoring of elk in the East Central foothills of Alberta with R. Anderson & J. Frair. <i>Alberta Conservation Association</i>	\$12,000
2005-2006	A computer interface for models of cumulative impacts from land management on elk with R. Anderson & J. Frair. <i>Talisman Oil Company</i>	\$15,000
2005-2006	Determining wolf pregnancy rates using fecal hormones to N. Webb. <i>Alberta Conservation Association Biodiversity Grant</i>	\$8,000
2005-2006	Determining wolf predation from GPS-based movements with N. Webb. <i>Alberta Professional Outfitters Society</i>	\$3,444
2005	Travel infrastructure for field studies with S. Hannon. <i>NSERC – Research Tools & Infrastructure grant</i>	\$36,567
2005	Integrated field system for measuring animal movement with Cassidy-St-Clair. <i>NSERC – Research Tools & Infrastructure grant</i>	\$21,786
2005	Wolf predation on ungulates with N. Webb. <i>Foundation North American Sheep</i>	\$3,500
2005	Predation rates on ungulates by wolves in Alberta with N. Webb. <i>Safari Club International – Northern Alberta Chapter</i>	\$1,000
2004-2006	Trans-boundary elk and wolf movements to Jasper National Park with N. Webb. <i>Weyerhaeuser Company</i>	\$127,000

2004-2006	New field techniques for estimating wolf densities and predation rates with N. Webb. <i>Alberta Conservation Association</i>	\$72,038
2004-2005	Pregnancy rates of wolves: a non-evasive approach through scat analysis. <i>Wilburforce Foundation – Y2Y Grant</i>	\$29,887
2003-2008	Spatial dynamics of wolf predation in Central East Alberta with M. Boyce & J. Fryxell. <i>NSERC – Collaborative Research Opportunities</i>	\$1,064,840
2005	Foraging ecology of native ungulate communities: implications for dietary competition. <i>Rocky Mountain Elk Foundation</i>	\$13,000
2003-2006	Ya Ha Tinda elk migration and management study with M. Hebblewhite. <i>Rocky Mountain Elk Foundation</i>	\$65,060
2003-2006	Evaluating fire management scenarios for ungulate habitat potential with M. Hebblewhite. <i>Alberta Conservation Association</i>	\$54,430
2003-2004	Wolf predation on elk migration with M. Hebblewhite. <i>Alberta Conservation Association–Biodiversity Grant</i>	\$13,050
2002-2006	Precision Ranching: Multi-species grazing systems with R. Hudson, R. Grant, E. Bork, D. Hik, & J. Cahill. <i>NSERC – Strategic Project</i>	\$784,000
2002-2004	Seasonal dynamics and carrying capacity of bison forages in Wood Buffalo National Park with J. Wilmshurst <i>Parks Canada. Wood Buffalo National Park</i>	\$49,047
2001-2004	Effects of wolf predation and seasonal forage dynamics on elk migration in Banff National Park with M. Hebblewhite. <i>Parks Canada: Banff National Park</i>	\$184,600
2001-2003	Wolves in Yellowstone: Multi-trophic level responses to the addition of a top carnivore with R. Peterson, M. Boyce, & L. Mech. <i>National Geographic Society</i>	\$150,000 US
2001	Effects of elk herbivory on soil and vegetation in grassland communities of Alberta. <i>Rocky Mountain Elk Foundation</i>	\$12,000
2001	Precision Ranching with M. Price, E. Bork, R. Hudson, J. Cahill, D. Hik, R. Pelletier, S. Jeffery, & S. Moore. <i>Canadian Foundation of Innovation</i>	\$440,000
2000-2004	Population monitoring and land-use impacts on resident and translocated elk in Alberta with M. Boyce. <i>Sunpine Forests, Weyerhaeuser, Rocky Mountain Elk Foundation, & Alberta Conservation Association</i>	\$450,000
2001-2004	Building a mechanistic basis for landscape ecology of ungulate with P. Turchin, M. Turner, J. Fryxell, & M. Boyce. <i>National Science Foundation of Innovation</i>	\$2,080,000 US
2000-2002	Grazing in grassland communities in Jasper National Park. <i>Parks Canada: Jasper National Park</i>	\$20,000
2000	Biotelemetry analysis system: infrastructure for cumulative effects with M. Boyce & S. Lele. <i>Canadian Foundation of Innovation: New Opportunities Equipment Grant</i>	\$340,000
<u>University of Wisconsin</u>		<u>USD</u>
1997-1998	Integrating Courses with GIS Technology: The wildlife example. Undergraduate Teaching Improvement Grant. <i>University of Wisconsin System, Madison, WI</i>	\$15,000

1996	Loon foraging ecology in acidic lakes with J. Hartigan. <i>Loon Watch Association</i>	\$1,000
1995-1998	Mercury contamination and loon foraging and survival. with M. Meyer. <i>Wisconsin Dep. Natural Resources</i>	\$36,000
<u>University of Wyoming</u>		
1996-1998	Deer browsing at Devils Tower National Monument, WY. <i>U.S. National Biological Service</i>	
1994-1997	Scale and forest fragmentation on bird species diversity. <i>U.S. Environmental Protection Agency</i>	\$280,000
1992-1995	Elk-cattle interactions in the Lemhi Mountains, ID. <i>Idaho Department of Fish and Game</i>	\$40,000
1993-1995	Cattle and elk grazing on riparian areas. <i>Rocky Mountain Elk Foundation</i>	\$6,000
1994-1995	Deer-woodland dynamics on Devils Tower National Monument. <i>U.S. National Park Service – UW Center</i>	\$4,000
1993-1994	Plant responses to multiple disturbances: flooding and grazing. <i>University of Wyoming</i>	\$2,900
1992-1993	Statewide habitat modeling of vertebrates in Wyoming. <i>Wyoming Game and Fish Department</i>	\$56,000
1991-1996	GAP Analysis of Wyoming with W. Reiners & S. Anderson. <i>U.S. Fish and Wildlife Service</i>	\$535,000
1990-1994	Devils Tower National Monument deer ecology study. <i>U.S. National Park Service</i>	\$48,000
1990	Plant responses to above and below ground herbivory with N. Stanton. <i>U.S. National Park Service – UW Center</i>	\$5,000
1989-1995	Remote sensing of vegetation recovery in Yellowstone National Park after the 1988 fires with R. Marrs. <i>U.S. National Park Service</i>	\$27,000

TECHNICAL CONTRIBUTIONS

Beyer, H. Hawth's Analysis Tools for ArcGIS: GIS spatial tools initially developed in response to research and teaching efforts in my lab from 2003-2005. These tools are now used world-wide. See: <http://www.spatial ecology.com/htools>.

POPULAR ARTICLES

- Frair, J.L., E.H. Merrill, J. Allen, M.S. Boyce. 2010. Experience influences success of elk translocations. Fair Chase. Boone and Crockett. April 2010 pp.
- Merrill, E.H., M. Pybus M.S. Boyce. 2010. Chronic wasting disease--the big unknown. Alberta Outdoors. Sept 2010: 10-12.
- Merrill E. and M. Boyce. 2010. Predator perspectives from down under. Alberta Chapter- The Wildlife Society. Newsletter 22:2-3.
- Frair, J.L., E.H. Merrill, J. Allen, M.S. Boyce. 2009. How to translocate elk in risky landscapes. Alberta Outdoors. Fall 2009.
- Merrill, E.H. 1990. Ashes to elk: Mount St. Helens elk recolonizing elk herds. Bugle 7:75-80.

PEER REVIEWED JOURNAL PUBLICATIONS

Peer-Reviewed Journal Publications

- Robinson, B. G and E. H. Merrill. 2013. Foraging-vigilance trade-offs in a partially migratory population: comparing migrants and residents on a sympatric range *Animal Behaviour* 85:849-856.
- Webb, N. F. and E. H. Merrill. 2012. Simulating carnivore movements: an occupancy-abundance relationship for surveying wolves. *Wildlife Society Bulletin* 36:240–247.
- Potapov, A., E. Merrill, M. Pybus, D. Coltman, and M. Lewis. Chronic wasting disease: possible transmission mechanisms in deer. *Ecological Modelling* 250: 244-257.
- Potapov, A., E. H. Merrill, M. A. Lewis. 2012. Wildlife disease elimination and density dependence. *Proceedings Royal Society. B.* 279: 3139-3145.
- McPhee, H. M, N. F. Webb, and E. H. Merrill. 2012. Hierarchical predation: wolf (*Canis lupus*) selection along hunt paths and at kill sites. *Canadian Journal Zoology* 90:555-563.
- Mckenzie, H.W., E. H. Merrill, R. J. Spiteri, and M.A. Lewis. 2012. How linear features alter predator movement and the functional response. *Interface Focus* 2:205-216.
- Rees, E. E., E. H. Merrill, T. K. Bollinger, Y. T. Hwang, M. Pybus, D. Coltman. 2012. Targeting the detection of chronic wasting disease using the hunter harvest during early phases of an outbreak in Saskatchewan, Canada. *Preventive Veterinary Medicine.* 104:149-159.
- McPhee, H.M., N.F. Webb, E.H. Merrill. 2012. Time-to-kill: measuring attack rates in a heterogeneous landscape with multiple prey types. *Oikos* 121:711-720.
- Hebblewhite, M and E.H. Merrill. 2012. Demographic balancing of migrant and resident elk in a partially migratory population through forage–predation tradeoffs. *Oikos* 120:1860-1870.
- Nelson, B., M. Hebblewhite, V. Ezenwa, T. Shury, E.H. Merrill, P.C. Paquet, F. Schmiegelow, D. Seip, G. Skinner, N. Webb. 2012. Prevalence of antibodies to canine parvovirus and distemper virus in wolves in the canadian rocky mountains. *Journal Wildlife Diseases* 48:68-76.
- Webb, N. F. , J.A. Allen and E. H. Merrill. 2011. Demography of a harvested wolf population in west-central Alberta, Canada. *Canadian Journal Zoology.* 89:744-752.
- Robinson, B. G. and E. H. Merrill. The influence of snow on the functional response of grazing ungulates. *Oikos.* 164: 265-275.
- Romme, W.H., M. . Boyce, R. Gresswell, E. H. Merrill, G. W. Minshall, C. Whitlock, and M. G. Turner. 2011. Twenty years after the 1988 Yellowstone fires: Lessons about disturbance and ecosystems. *Ecosystems.* DOI: 10.1007/s10021-011-9470-6
- Habib, T. J., E. H. Merrill, M. J. Pybus, and D. W. Coltman. Modelling landscape effects on density-contact rate relationships of deer in eastern Alberta: implications for chronic wasting disease. *Ecological Modeling* 222:2722-2732.
- Cullingham C.I., E.H. Merrill, M. Pybus, Bollinger, TK., G.D., Wilson, D.W. Coltman. 2011. Broad and fine-scale genetic analysis of white-tailed deer populations: estimating the relative risk of chronic wasting disease spread. *Evolutionary Applications* 4:116-131.
- Cullingham, C.I., S.M. Nakada, E.H. Merrill, T.K. Bollinger, M.J. Pybus, and D.W. Coltman. 2011. Multiscale population genetic analysis of mule deer (*Odocoileus hemionus hemionus*) in western Canada sheds new light on the spread of chronic wasting disease. *Canadian Journal Zoology* 89: 134–147.
- Merrill, E., H. Sand, B. Zimmermann, H. McPhee, N. Webb, M. Hebblewhite, P. Wabakken and J. Frair. 2010. Building a mechanistic understanding of predation with GPS-based movement data. *Philosophical Transactions Royal Society B* 365:2279-2288.
- Robinson, B.G., M. Hebblewhite, E.H. Merrill. 2010. Are migrant and resident elk (*Cervus elaphus*) exposed to similar forage and predation risk on their sympatric winter range? *Oecologia* 164: 265-275.

- Morales, J. P.R. Moorcroft, J. Matthiopoulos, J.L. Frair, J.G. Kie, R.A. Powell, E. H. Merrill, and D.T. Haydon. 2010. Building the bridge between animal movements and population dynamics. *Philosophical Transactions Royal Society B* 365:2289-2301.
- Owen-Smith, N., J. M. Fryxell, and E. H. Merrill. 2010. Foraging theory upscaled: the behavioural ecology of herbivore movement. *Phil. Trans. R. Soc. B.* 365: 2267-2278.
- Van Moorter B., D.R. Visscher, C.L. Jerde, J.L. Frair and E.H. Merrill 2010. Identifying movement states from location data using cluster analysis. *Journal Wildlife Management.* 74: 588-594.
- McInenly, L.E., E.H. Merrill, J.F. Cahill, and N.G. Juma 2010. *Festuca campestris* alters root morphology and growth in response to simulated grazing and nitrogen form. *Functional Ecology* 24: 283-292.
- Hebblewhite, M. and E.H. Merrill. 2009. Trade-offs between predation risk and forage differ between migrant strategies in a migratory ungulate. *Ecology* 90:3445-3454.
- Wilson, G.A., S.M. Nakada, T. K. Bollinger, M.J. Pybus, E.H. Merrill, and D.W. Coltman. 2009. Polymorphisms at the PRNP gene influence susceptibility to chronic wasting disease in two species of deer to chronic wasting disease in two species of deer (*Odocoileus spp.*) in western Canada. *Journal Toxicology and Environmental Health.* 72:1025-1029.
- Hebblewhite, M., R.H. Munroe, E.H. Merrill. 2009. Trophic consequences of postfire logging in a wolf-ungulate system. *Forest Ecology and Management* 257:1053-1062.
- McKenzie H, M. Lewis, E. Merrill 2009. First passage time of animal movement and insights in to the functional response. *Bulletin of Mathematical Biology* 71: 107-129.
- Visscher, D. and E.H. Merrill 2009. Temporal dynamics of forage succession for ungulates at two scales: Implications for forest management. *Forest Ecology and Management* 257 96-106.
- Wolf, M. J.L. Frair, E.H. Merrill, P. Turchin. 2009. The attraction of the unknown:the importance of spatial familiarity in habitat selection in wapiti (*Cervus elaphus*). *Ecography* 32:401-410.
- McKenzie, H.W., C.L. Jerde, D.R. Visscher, E.H. Merrill, and M.A. Lewis. 2008. Inferring linear feature use in the presence of GPS measurement error. *Environmental and Ecological Statistics* 16:531-546.
- Frair, J.L., E.H. Merrill, H.L. Beyer, and J.M. Morales. 2008. Thresholds in landscape connectivity and mortality risks in response to growing road networks. *Journal of Applied Ecology* 45:1504-1513. **(Editor`s recommended article)**
- Allen, J.R., L.E. McInenly, E.H. Merrill, and M.S. Boyce. 2008. Using resource selection functions to improve estimation of elk population numbers. *Journal of Wildlife Management* 72:1798-1804
- Webb, N.F., M. Hebblewhite, and E.H. Merrill. 2008. Statistical methods for identifying wolf kill sites using global positioning system locations. *Journal Wildlife Management* 72:798-807.
- Hebblewhite, M., E.H. Merrill, and G. McDermid. 2008. A multiscale test of the forage maturation hypothesis in a partially migratory ungulate population. *Ecological Monographs* 78:141-166. (Cover photo)
- Hebblewhite, M. and E.H. Merrill. 2008. Modeling wildlife-human relationships for social species with mixed-effects resource selection models. *Journal Applied Ecology* 45:834-844. (Cover photo)
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- Hebblewhite, M., M. Percy, and E.H. Merrill. 2007. Are all GPS collars created equal? Correcting habitat-induced bias using three brands in the Central Canadian Rockies. *Wildlife Society Bulletin* 71:2026-2033.
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- Frair, J.L., E.H. Merrill, J.W. Allen, and M.S. Boyce. 2007. Know thy enemy: lessons from elk translocations into risky landscapes. *Journal of Wildlife Management* 71:541-554.
- Hebblewhite, M., E.H. Merrill, L.E. Morgantini, C.A. White, J.R. Allen, E. Bruns, L. Thurston, and T.E. Hurd. 2006. Is the migratory behaviour of montane elk (*Cervus elaphus*) herds in peril? The case of Alberta's Ya Ha Tinda elk herd. *Wildlife Society Bulletin* 34:1280-1294.
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- Frair, J.L., E.H. Merrill, D.R. Visscher, D. Fortin, H.L. Beyer, and J.M. Morales. 2005. Scales of movement by elk (*Cervus elaphus*) in response to heterogeneity and predation risk. *Landscape Ecology* 20:273-287.
- Hebblewhite, M., E.H. Merrill, and T.L. McDonald. 2005. Spatial decomposition of predation risk using resource selection functions: an example in a wolf-elk predator-prey system. *Oikos* 111:101-111.
- Merrill, E.H., J.J. Hartigan, and M.W. Meyer. 2005. Does prey biomass or mercury exposure affect loon chick survival in Wisconsin? *Journal Wildlife Management* 69:57-67.
- Morales, J.M., D. Fortin, J.L. Frair, and E.H. Merrill. 2005. Adaptive models for large herbivore movements in heterogeneous landscapes. *Landscape Ecology* 20:301-316.
- Fortin, D., M.S. Boyce, E.H. Merrill, and J.M. Fryxell. 2004. Foraging costs of vigilance in large mammalian herbivores. *Oikos* 106:1-9.
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- Merrill, E.H. and P.J.S. Coleberg. 2003. Defoliation, waterlogging and dung influences allocation patterns of *Descampsia caespitosa*. *Journal of Range Management* 56:634-639.
- Driese, K.L., W.A. Reiners, E.H. Merrill, and K.G. Gerow. 1997. A digital GIS land cover map of Wyoming: a tool for vegetation analysis. *Journal Vegetation Science* 8:133-146.
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Book Chapters

- Boyce, M.S., E.H. Merrill and A.R.E Sinclair. 2009. Managing the biosphere: Wildlife Management. Pages: 695-700 in S.L. Levin, Editor.. The Princeton guide to ecology. Princeton University Press, Princeton, N.J., USA.
- Merrill, E.H. 1992. Population and habitat characteristics of recolonizing elk herd. Pages 225-227 in B. Bobek, K. Perzanowski and W.L. Reglin, editors. Global trends in wildlife management. Vol 2. Swiat Press, Krakow, Poland.
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- Hebblewhite, M, E.H. Merrill, C. White. 2010. Disentangling bottom-up and top-down effects of fires on montane ungulates. The Yellowstone Fires and Beyond. Symposium. Tall Timbers Research Misc. Publications.

Symposia

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Reports

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Theses

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Manuscripts of students while under my supervision but not co-authored

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- Hurford, A., M. Hebblewhite, and M.A. Lewis. 2006. A spatially explicit model for the Allee effect: why wolves recolonize so slowly in Greater Yellowstone. *Theoretical Population Biology* 70:244-254.
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- Jerde, C.L. and D.R. Visscher. 2005. GPS measurement error influences on movement model parameterization. *Ecological Applications* 15:806-810.
- Morales, M.M., D.T. Haydon, J.L. Frair, K.E. Holsinger, and J.M. Fryxell. 2004. Extracting more out of relocation data: building movement models as mixtures of random walks. *Ecology* 85:2436-2445.

POSTER PRESENTATIONS SINCE 2011

Shifting landscapes: 50 years of grassland change in the Montane region of the upper Red Deer River, AB. Canadian Society for Ecology and Evolution, Ann Meeting, , Banff, AB. 12-15 May 2012

Model for chronic wasting disease in wild deer in Alberta. Prion 2011: New World, Montreal, PrioNet Canada, Montreal, Qe. 16-17 May. 2011

ORAL PRESENTATIONS (including co-authored and student presentations) ¹invited

2011-2012

2012 Loss of more than migration: Is the Ya Ha Tinda elk herd imperiled? The Wildlife Society, Portland, OR 15 Oct. (*Invited*).

- 2012 Connecting the dots: Chronic wasting disease in Alberta's wild deer. Alberta Innovates and Bio Solutions Impact Innovation Speakers Series with Jay Ingram. Edmonton, AB- 16 May; Calgary, AB-17 May (Two talks). *(Invited)*.
- 2012 Modeling CWD in deer management in Alberta. Alberta Fish and Wildlife Research Mtg. Univ. Alberta, Edmonton. 26 Apr
- 2012 Cumulative effects of wolves and industrial activities on habitat effectiveness for elk in the Rocky Mountains of Alberta. National Fish and Wildlife Conservation Congress, Ottawa, ON. Mar 23
- 2012 Dynamics of the Ya Ha Elk herd: What research has taught us. Sundre Trappers Association, Sundre, AB. 20 Mar. *(Invited)*.
- 2012 Predicting the spread of chronic wasting disease in east-central Alberta. Annual Mtg. Alberta Chapter of The Wildlife Society. Medicine Hat, AB 16 Mar
- 2012 Ya Ha Tinda research and next steps. Parks Canada Research Mtg., Sundre, AB. 10 Mar. *(Invited)*.
- 2012 Decision support models for managing cwd in wild deer populations in Alberta, PRIONET/APRI Joint Scientific Meeting, Toronto, ON. 17 Jan
- 2012 Selection, use, choice, and occupancy: clarifying concepts in resource selection studies. Wildlife ecology Wednighter series. Univ. Alberta, Edmonton. 25 Jan
- 2012 Dynamics of the Ya Ha Elk herd: What research has taught us. Sundre, Alberta Fish and Game Association. Sundre, AB. 11 Dec. *(Invited)*.
- 2011 Cumulative effects of wolves and industrial activities on habitat effectiveness for elk in the Rocky Mountains of Alberta. Dep. Biology, Univ. Calgary, Calgary, AB. 2 Dec *Invited*.
- 2011 Spread of chronic wasting disease: Did mule deer draw the short straw? Annual Mtg. The Wildlife Society, Waikoloa, HI 9 Nov.
- 2011 Industrial activities and elk in the eastern slopes of Alberta. GIS Day. Univ. Alberta, Edmonton, AB. 18 Nov.
- 2011 Cumulative effects of wolves and industrial activities on habitat effectiveness for elk in the Rocky Mountains of Alberta. Annual Mtg. Canadian Section of The Wildlife Society. Thunder Bay, ON. 24 Sept. *(Invited)*.
- 2011 Herbicides effects on elk forages at Mount St. Helens. National Council for Air and Stream Improvement. Longview, WA. 22 Sep.
- 2011 The Alberta Advantage: integrated surveillance, management, and research during the early stages of CWD intrusion- look early, act quickly, learn as you go. Annual Mtg. Wildlife Disease Association. Aug 23.
- 2011 Wolf predation in heterogeneous landscapes of Alberta, Canada. Norwegian University of Science and Technology, Trondheim, Norway. 15 Aug. *(Invited)*.
- 2011 Cumulative effects of wolves and industrial activities on habitat effectiveness for elk in the Rocky Mountains of Alberta. Hedmark University, Evanstad, Norway. 10 Aug. *(Invited)*.

2010-2011

- 2011 Chronic wasting disease in Alberta: Did mule deer draw the short straw? The Wildlife Society Meeting, Waikoloa, Hawaii, USA, 7 Nov.
- 2011 Of large herbivores and men: Long-term studies at Ya Ha Tinda, A.R.E Sinclair Symposium, Vancouver, B.C. , 17 Sep.
- 2011 Time...and CWD marches on. Wildlife Disease Association 60th Annual International Conference, Quebec City, Quebec, Canada, 15 Aug.
- 2011 Chronic wasting disease in Alberta: Did mule deer draw the short straw? Elk and Deer Workshop, Albuquerque, N.M. USA, 18 May.
- 2011 Partial migration at Ya Ha Tinda: Do residents have the home advantage? Elk and Deer Workshop, Albuquerque, N.M. USA, 16 May.
- 2011 Landscape heterogeneity and the spread of chronic wasting disease in east central Alberta. Alberta Chapter, The Wildlife Society. Camrose, AB 13 Mar.
- 2011 Resource selection, use and choice: modeling the differences. Grismo, Sweden. Mar 27.
- 2011 Wolf selection and predation: models for time-to-kill. Grismo, Sweden. Mar 26. (*Invited*).
- 2011 Landscape heterogeneity and predation: Time-to-kill models. Imperial College, Silwood Park, England. 21 Mar
- 2011 The Alberta advantage: integrated surveillance, management, and research during the early stages of CWD intrusion- look early, act quickly, learn as you. CWD Management workshop: Past practices, current conditions, current science, future risks and options. Edmonton, AB. 9 Feb.
- 2011 Modeling chronic wasting disease in deer populations. Mathematical Biology Seminar, Univ. Alberta. 24 Jan.
- 2010 Implications of wolf movements for functional responses. Univ. Adelaide, Adelaide, Australia, Nov 20. (*Invited*).
- 2010 Habitat selection: confusing terminology, Univ. Queensland, Brisbane, Australia, Nov 14. (*Invited*).
- 2010 Influence of landscape heterogeneity on wolf path selection and time-to-kill. Society for Behavioral Ecology, Perth, Australia, 29 Sep
- 2010 Wolves moving in heterogeneous landscapes with human disturbance. Landcare, Lincoln, New Zealand, 6 Oct. (*Invited*)
- 2010 Translocating wildlife species: elk in Alberta. CSIRO, Brisbane, Australia, Oct 12.
- 2010 Modeling elk movements in heterogeneous landscape, Univ. Queensland, Brisbane, Australia, Sep 21. (*Invited*).

2009-2010

- 2010 Modeling CWD spread using hunter surveillance data from SK: implications for Alberta. Alberta Chapter of The Wildlife Society, Annual Mtg, Plenary session, Red Deer, AB, 13 Mar (*Invited*).
- 2010 Risk of CWD in mule deer and white-tailed deer populations in Alberta and Saskatchewan, Alberta Chapter of The Wildlife Society, Annual Mtg, Plenary session, Red Deer, AB, 13 Mar (*Invited*).*
- 2010 Modeling deer movements: implications for chronic wasting disease spread in east central Alberta. Alberta Chapter of The Wildlife Society, Annual Mtg, Plenary session, Red Deer, AB 13, Mar (*Invited*).*
- 2010 Landscape structure and deer distribution: implications for contact rates and CWD. Alberta Chapter of The Wildlife Society, Annual Mtg, Plenary session, Red Deer, AB 13, Mar (*invited*).*
- 2010 Implications of a changing montane landscape: assessing the capacity for the YHT elk herd. Alberta Chapter of The Wildlife Society, Annual Mtg, Red Deer, AB, 14 Mar.*
- 2010 Wolf kill rates and age/species composition in a multi-prey system in summer. Alberta Chapter of The Wildlife Society, Annual Mtg, Red Deer, AB, 14 Mar.*

- 2010 First passage time: wolf movements and functional responses. Banff Mathematical Biology workshop, Banff AB., Sep 10.*
- 2010 Risk of CWD in mule deer and white-tailed deer populations in Alberta and Saskatchewan, Alberta Chapter of The Wildlife Society, Annual Mtg, Plenary session, 13 Mar (*Invited*).*
- 2010 Field studies in support of CWD studies: Alberta Fish and Game Association Youth Group. Edmonton, AB. Feb 23. (*Invited*)*
- 2010 Modeling the cumulative effects of industry and wolves on habitat effectiveness for elk. Institute for Complex Data Structure statistical workshop, Montreal, CA 4-5 Mar (*Invited*).
- 2010 Landscape structure and deer distribution: Implications for contact rates and CWD, PrPCanada, Ottawa 9 Mar (*Invited*)*
- 2010 Predicting spread of CWD in east central Alberta using deer movement models, PrPCanada, Ottawa 8 Mar (*Invited*)*
- 2010 Landscapes of fear: Wolf-elk behavioral responses in the Canadian Rocky Mountains. Univ. Washington, WA Jan 25 (*Invited*).
- 2009 Behavioral responses of elk to wolves: Do resident and migrant elk respond differently? SUNY College of Environmental Sciences and Forestry, NY Oct 19 (*Invited*).
- 2009 Predator-prey dynamics in the Canadian Rockies. Univ. Calgary, Dep. Biological Science, Seminar Series, Calgary, AB. 7 Oct. (*Invited*)
- 2009 Selection, choice, use and preference: Unclear concepts. Biostatistics symposium. The Wildlife Society, Monterey, CA. Sep 22.
- 2009 Landscape Structure and deer distribution: Implications for contact rates and CWD. 3rd International Chronic Wasting Disease Symposium to be held in beautiful Park City, Utah on July 22-24.
- 2009 Modelling CWD spread using surveillance data. 3rd International Chronic Wasting Disease Symposium to be held in beautiful Park City, Utah on July 22-24.

2008-2009

- Thresholds in landscape connectivity and mortality risks for elk in response to growing road networks, Eighth Deer and Elk Workshop, Spokane, WA 27-30 Apr
- Chronic wasting disease in Alberta, Wild Sheep Foundation Alberta, Red Deer, AB, 21 Mar
- Saskatchewan and Alberta hunter harvest data predict chronic wasting disease spread, Alberta Chapter of The Wildlife Society, Edmonton, AB 8 Mar
- Grassland dynamics: investigating cause and consequences of woody plant encroachment, Alberta Chapter of The Wildlife Society, Edmonton, AB 7 Mar (Poster)*
- Exposure of migrant and resident elk to forage and wolf predation risk at Ya Ha Tinda winter range, Alberta Chapter of The Wildlife Society, Edmonton, AB 7 Mar
- Foraging activity and movement of GPS-collared grazing assemblages in Alberta Chapter of The Wildlife Society, Edmonton, AB 7 Mar
- Reducing error in deer aerial surveys in the aspen parkland of east-central Alberta, Alberta Chapter of The Wildlife Society, Edmonton, AB 7 Mar*
- Genetics spread of chronic wasting disease spread in Alberta and Saskatchewan, Alberta Chapter of The Wildlife Society, Edmonton, AB 8 Mar*
- Dynamics of a harvest wolf population in west-central Alberta, Alberta Chapter of The Wildlife Society, Edmonton, AB 7 Mar*
- Using population genetics as a tool to assess the relative risk of chronic wasting disease spread, Alberta Prion Research Institute, Edmonton, AB 3 Mar (*Invited*)*
- Hunter harvest data and spread of CWD, Alberta Prion Research Institute, Edmonton, AB 3-4 Mar
- Foraging activity and GPS –collared cattle, bison, elk and deer in aspen parkland, Society of Range Management, Albuquerque, NM 8-12 Feb*
- Tri-trophic interactions: is the northern range elk herd less variable with wolves and fire? 1988 Fires and beyond, Jackson Hole, WY 24 Sept (*Invited*)

- Time-to-kill and landscape heterogeneity, GPS Workshop, Alpine Research Station, Torino, Italy, 5 Sept
- Cumulative effects of wolves and industrial activities on habitat effectiveness for elk in the Rocky Mountains of Alberta, Canada, Annual Meeting of The Wildlife Society, Miami, FL, 8-12 Nov
- Anti-predator behavior of elk on the Ya Ha Tinda winter range: Do migrants and residents behaviors differently? Canadian Section of The Wildlife Society, Gimli, MB, 16 Aug*
- Disease corridors and chronic wasting disease, Canadian Section of The Wildlife Society, Gimli, MB, 17 Aug*
- Incorporating heterogeneity deer distribution in CWD management, Wildlife Disease Association, Edmonton, AB 6 Aug*
- Disease corridors and chronic wasting disease, Wildlife Disease Association, Edmonton, AB Aug 6*
- Genetic analysis of CWD infected deer in western Canada, Wildlife Disease Association, Edmonton, AB Aug 4
- First passage time: insights into animal movements. European Conference on Mathematical and Theoretical Biology, Edinburgh, Scotland, 29 June*

2007-2008

- Updates on chronic wasting disease in Alberta, Sherwood Park Fish and Game Association seminar, 6 Jun. (*Invited*)
- First passage time: insights into animal movement. Second Canada-France Congress: CAIMS mini-symposium "Motion in Biology", Montreal, QC, with McKenzie, H.W. and M.A. Lewis, 1-5 June. (*Invited*)
- Chronic wasting disease in Alberta. Rural Tour, Alberta Prion Research Institute, Grande Prairie, AB, 29 May. (*Invited*)
- Influence of heterogeneous landscape features on wolf predation events in Alberta. Food Web Symposium. Canadian Society of Ecology and Evolution, Vancouver, BC with H. McPhee, 20 May. (*Invited*)
- Perspectives on wolf-prey systems along the central east slopes of Alberta. Parks Tomorrow Conference, Calgary, AB with N. Webb, L. Morgantini, 9 May.
- Landscape Ecology Conference, Madison, WI. with D. Visscher, 9 Apr.
- Using wolf movement models to estimate population densities of a territorial species. Animal Movement Symposium: Landscape Ecology Conference, Madison, WI with N. Webb, 8 Apr. (*Invited*)
- Time to predation events in heterogeneous landscapes of Alberta. Landscape Ecology Conference, Madison, WI. with H. McPhee, 8 Apr.
- Alternative wolf management: research in Alberta. Foundation North American Wild Sheep, BC Chapter, Kamloops, BC with N. Webb, 15 Mar. (*Invited*)
- Alternative wolf management: research in Alberta. Alberta Fish and Game Annual Meeting, Red Deer, AB with N. Webb, 14 Mar. (*Invited*)
- Field Research on chronic wasting disease in Alberta. Northern Alberta Chapter, Safari Club, Edmonton, AB, 4 Mar. (*Invited*)
- Spread of chronic wasting disease in heterogeneous landscapes in Alberta. Alberta Chapter of The Wildlife Society, Red Deer, AB with T. Habib, 2 Mar.
- Are migrant and resident elk spatially segregated on the Ya Ha Tinda winter range? Alberta Chapter of The Wildlife Society, Red Deer, AB with B. Robinson, 1 Mar.
- Using wolf movement models to estimate population densities of a territorial species. Alberta Chapter of The Wildlife Society, Red Deer, AB with N. Webb, 1 Mar.

- Is over-winter predator avoidance behavior contributing to the decreasing number of migrating elk? Ya Ha Tinda/Red Deer River Valley Workshop, Sundre, AB with B. Robinson, 23 Jan. (*Invited*)
- Central East Slopes Wolf Project Update, Ya Ha Tinda/Red Deer River Valley Workshop, Sundre, AB with N. Webb, 23 Jan. (*Invited*)
- Chronic wasting disease in Alberta. Rural Tour, Alberta Prion Research Institute, Vegreville, AB, 3 Dec. (*Invited*)
- Elk translocations into risky landscape: A GIS approach to what influences success. University of Alberta GIS Day. Edmonton, AB, 15 Nov. (*Invited*)
- Interpretation of probabilities in the resource selection probability function. The Wildlife Society 14th Annual Conference, Tucson, AZ with M. Boyce and T. Habib, 22 Sep. (*Invited*)

2006-2007

- Modeling wolf movement in a heterogeneous environment. Ecological Society of America, Memphis, TN., with H. McKenzie and M. Lewis, Aug.
- Modeling wolf movement in a heterogeneous environment. Mathematical Annual Meeting, Raleigh, North Carolina, with H. McKenzie and M. Lewis, July.
- Research needs for chronic wasting disease. PrioNet-APRI Workshop, Saskatoon, SK, with Trent Bollinger, Feb.
- Research on CWD in Alberta. CWD Public Advisory Board, Chauvin, AB, with D. Coltman and M. Pybus, Sept.
- Estimating wolf kill rates in a multi-prey system using GPS data. Alberta Chapter of The Wildlife Society, with N. Webb and M. Boyce, Mar.
- Know thy enemy: lessons from elk translocations into risky landscapes. Alberta Chapter of The Wildlife Society, with J. Friar, J. Allen, H. Beyer, and M.S. Boyce, Mar.
- Chronic Wasting disease in Alberta. Alberta Veterinary Research Institute, with D. Coltman and M. Pybus, Jan.
- Research wolf trapping and the Alberta Trappers Association: Panel discussion. Alberta Trappers Association Meeting, Leslieville, AB, Jan.

2005-2006

- Indirect or direct effects of mercury contamination on loon in Wisconsin. Gap Analysis: the good, the bad and the ugly. Dep. Biological Sciences, University of Alberta, Edmonton, AB, Nov.
- Wolf densities estimates and predation. Alberta Conservation Association Open House, Rocky Mountain House, AB, with N. Webb, Sept.*
- The functional responses of elk habitat quality to road densities. Ecological Society of America, Montreal, with J. Frair and H. Beyer, Aug.
- Integrating animal location data collected at different temporal resolutions to improve estimates of resource use along paths: an example from elk. Ecological Society of America, Montreal, with H. Beyer, J. Frair, M. Lewis, and M.S. Boyce, Aug.
- Empirical measurements and analysis of movement: technological advances. Ecological Society of America, Montreal, with M.S. Boyce, Aug.
- Trading off food and risk: Do elk in cutblocks modify residency time or visitation rate? Ecological Society of America, Montreal, with D. Visscher, Aug.
- Predator-prey encounters: state of the art. Ecological Society of America, Montreal, ON, with H. Beyer and D. Hayden, Aug.
- Wolf populations in the central east slope of Alberta. Sundre Forest Products Advisory Council Meeting, Rocky Mountain House, AB, with N. Webb, Apr.
- Evaluation of elk forage dynamics after harvest and fire in the Central East slopes of Alberta. *Poster*. Alberta Conservation Association Partners in Conservation, Calgary, AB, with R. Munro, M. Hebblewhite, D. Visscher, and S. Hamilton, Mar.

- Elk population estimates in Alberta's central east slopes: sightability and RSF-stratified surveys. Alberta Chapter of The Wildlife Society, Red Deer, AB, with J. Allen, L. McInenly, and M.S. Boyce, Mar.
- Following in the footsteps of ungulates: foraging paths in a heterogeneous landscape. Alberta Chapter of The Wildlife Society, Red Deer, AB, with M. Didkowski, D. Hik, and R. Hudson, Mar. **Best Paper Award.**
- Do ungulates alter habitat selection in multi-grazing systems within aspen parklands? Alberta Chapter of The Wildlife Society, Red Deer, AB, with P. DeWitt, D. Hik, and R. Hudson, Mar.
- Is the migratory behaviour of montane elk herds in peril? A case study of the Ya Ha Tinda elk herd. Alberta Chapter of The Wildlife Society, Red Deer, AB, with M. Hebblewhite, Mar.
- Wolf predation studies. Alberta Fish and Game Association, Rocky Mountain House, AB, with N. Webb, Jan.

2004-2005

- Mercury exposure on loons in Northern Wisconsin. University of Alberta, Edmonton, AB, with J. Hartigan and M. Meyers, Nov.
- Landscape effects of on predator-prey encounters, Annual meeting of the Wildlife Society, Calgary, AB, with H. Beyer and D. Haydon, Sep.
- Determining wolf pregnancy rates from scats. 11th Annual Wildlife Society Conference, Calgary, AB, with N. Webb, 23 Sep.
- Dynamics of a harvested wolf population. North American Interagency Wolf Conference. Chico, Montana, with N. Webb and M. Hebblewhite, 8 Apr.
- Elk population dynamics across 25-years of wolf recolonization in Banff National Park's Northern Range: The Ya Ha Tinda. Interagency Wolf Conference, Chico Hot Springs, MT, with L. Thurston, M. Hebblewhite, L. Morgantini, and C. White, Apr.
- Visscher, Forest management and an overview of elk and wolf research in the Central East slope of Alberta. Sunpine Forest Products, Community Steering Committee, Sundre, AB, with D. Visscher, Mar. (*Invited*)
- Research on elk in the central east slope of Alberta. Central Public Advisory Committee, Weyerhaeuser Ltd., Drayton Valley, AB, with J. Frair, Feb. (*Invited*)
- Direct and indirect effects of mercury exposure on loons in Northern Wisconsin. University of Washington, Seattle, WA, with J. Hartigan and M. Meyers, Feb.23
- An adjacent harvested wolf population: Implications for Banff National Park. Montane Ecosystem Science Workshop. Sundre, AB, with N. Webb, Jan. 16
- Quantifying forage availability in the central east slopes of Alberta. Montane Ecosystem Science Workshop. Sundre, AB, with D. Visscher, Jan. 5.
- Overview of research on elk & wolves in the Central East slopes of Alberta. Montane Ecosystem Science, Parks Canada, Sundre, AB, Jan. 5 (*Invited*)

2003-2004

- Does prey availability or mercury exposure influence loon survival? Third International Wildlife Management Symposium, Christchurch, NZ, with J. Hartigan and M. Meyers, Dec.
- Modeling small scale movement biases by wapiti to roads. Third International Wildlife Management Symposium, Christchurch, NZ, with J. Frair and M.S. Boyce, Dec.
- Resource selection functions improve aerial survey stratification for elk. Third International Wildlife Management Symposium, Christchurch, NZ, with J. Allen and M.S. Boyce, Dec.
- Animal movement modeling: Applications to cumulative effects on elk in Central Alberta. University of British Columbia, BC, Sep. (*Invited*)
- Can small scale movement bias of elk to roads predict large-scale distribution?

- International Association of Landscape Ecology. Darwin, Australia, with J. Frair, Aug.
- Modeling elk movement with respect to roads. Alberta Chapter Wildlife Society, Red Deer, AB, with J. Frair, Feb. **Best Paper Award.**
- Applying resource selection functions to modeling predator-prey dynamics. Alberta Chapter of the Wildlife Society, Red Deer, AB, with M. Hebblewhite, Feb.
- Density influences resource selection in birds. First International Resource Selection Conference. Laramie, WY, 16 Jan.
- Application of resource selection functions to modeling predator-prey dynamics. First International Conference on Resource Selection by Animals, Laramie, WY, with M. Hebblewhite, Jan.
- Does GPS error influence resource selection function? International Conference on Resource Selection by Animals, Laramie, WY, with J. Frair, S. Lele, and M.S. Boyce, Jan.

2002-2003

- Density dependent habitat selection of forest birds in the Bighorn Mountains of Wyoming. UK Association for Landscape Ecology. Norwich, UK. Sept.
- On the road to evaluating cumulative effects: deer movement and roads. Fifth International Deer Biology Congress, Quebec City, with J. Frair, Aug.
- Costs of vigilance on foraging elk in Yellowstone National Park, Fifth International Deer Biology Congress, Quebec City, with D. Fortin and M.S. Boyce, Aug.
- Scale and heterogeneity in habitat selection by elk in Yellowstone. Fifth International Deer Biology Congress, Quebec City, with M.S. Boyce, J. Mao, D. Fortin, M. Turner, J. Fryxell, and P. Turchin, Aug.
- Elk ecology in the Central East slopes of Alberta. Rocky Mountain Elk Foundation, Banquet, Rocky Mountain House, AB with J. Frair. (*Invited*)
- Cumulative impact studies on elk in the Central East slopes of Alberta. Rocky Mountain Elk Foundation, Board of Direct. Rocky Mountain. House, AB, with J. Frair. (*Invited*)

2001-2002

- Gap Analysis: the good, the bad and the ugly. Landscape ecology series, Department of Renewable Resources, Jan.
- Cumulative impacts studies on elk in the Central East slopes of Alberta. Public Advisory Committee, Sunpine Forest Products, Sundre, AB, with J. Frair. (*Invited*)
- Resilience and stability of oak woodlands with deer browsing on Devils Tower National Monument. Forest Dynamics and Ungulate Herbivory Conference, Davos, Switzerland, Oct with H. Beyer, G. Jones, and G. McDaniel.

Selected Presentations Pre 2001

- Gap Analysis: the good, the bad and the ugly. Dep. Biological Sciences, University of Alberta, Edmonton, 6 Apr.
- Wildlife Management in Mongolia. Women in Natural Resources, University of Wisconsin-Stevens Point, WI. 10 Dec.
- Why I teach. Board of Visitors, University of Wisconsin-Stevens Point, Stevens Point, WI, Dec.
- Woman in Science: Wildlife Managers. Woman in Science Day, University of Wisconsin Stevens Point, Stevens Point, WI. Oct
- Careers In Wildlife Management. Careers in Natural Resources Workshop for Guidance Counselors and Science Teachers, Schmeekle Forest Reserve. University of Wisconsin-Stevens Point, WI, Oct. (*Invited*)
- Central Wisconsin Environmental Station speaker: Teaching Wildlife Topics in High Schools. University of Wisconsin-Stevens Point, WI University of Wisconsin-Stevens Point, WI, Oct. (*Invited*)
- Kiwanis Club Luncheon Speaker. University of Wisconsin-Stevens Point, WI, May. (*Invited*)
- Careers In Wildlife Management. Careers in Natural Resources Workshop for Guidance

- Counselors and Science Teachers, Schmeekle Forest Reserve. University of Wisconsin-Stevens Point, WI, Oct. (*Invited*)
- Foraging and thermal constraints on elk recolonizing the Mount St. Helens blast zone. Dept. Biology, University of Wisconsin, Madison. WI. Oct.
- Influence of landscape structure on bird diversity in the Bighorn Mountains of Wyoming, The Wildlife Society Cleveland, OH, 3 Oct.
- Influences of landscape patterns on bird diversity in forested habitats. International Workshops of Forestry Research Organizations. Portland, OR, Apr.
- Managing for single species vs. ecosystem/ regional approach. College Natural Resources, University of Wisconsin-Stevens Point. Forest Management and Endangered Species Seminar, University of Wisconsin-Stevens Point, Stevens Point, WI, Nov. (*Invited*)
- Deer-woodland dynamics at Devils Tower National Monument: an ecosystem modeling approach. 2nd Annual Wildlife Society Meeting. Portland, OR, Sept.
- Mt St. Helens Eruption, Kiwanis Club Luncheon Speaker, Stevens Point, WI, May.
- Elk and cattle range relations on the Lemhi Mountains, Idaho. Western States and Provinces Joint Deer and Elk Workshop, Sun Valley, ID, May.
- Wyoming's Gap Analysis Project: Progress update. Annual Gap Analysis Meeting, Seattle, WA, July.
- Modeling deer-woodland dynamics in Devils Tower National Monument. NSF Biomodeling workshop: presentation session, Univ. Montana, Cody, WY, May.
- Spatial modeling of vertebrate species in Wyoming. Spatial analyses at the University of Wyoming, Wyoming GIS User's Group Meeting, Laramie, WY, May.
- Biodiversity planning in Wyoming. State Water Forum- State Engineer's Office. Cheyenne, WY, 20 Mar. (*Invited*)
- Elk recolonization of the Mount St. Helens blast zone. International Union of Game Biologist, Krakaw, Poland, Aug. 14.
- Remote sensing applications in wildlife and habitat assessment, Remote sensing applications and LANDSAT policy workshop, Univ. of Wyoming, Laramie, WY, Feb. 23. (*Invited*)
- 1982-1986** Selected presentations during PhD related to Elk recolonization of the Mount St. Helens Blast Zone
- Symposium: Mount St. Helens – 5 years later, Cheney, WA
 - Washington Big Game Council, Bellvue, WA
 - Mount St. Helen's Monument Staff Meeting, Cispus, WA
 - Idaho Student Chapter of the Wildlife Society, Moscow, ID
 - Washington Department of Game, Region 5 Meeting, Vancouver, WA
 - Woodland Zoo Zoological Society, Seattle, WA
 - Northwest Science Meeting, Olympia, WA
 - Pacific Northwest Bird and Mammals Society, Seattle, WA
 - Northwest Section of the Wildlife Society, Spokane, WA
 - Weyerhaeuser Company (total of 10)
 - British Broad Casting (BBC): Documentary
 - NBC Nightly News

COMMUNITY INVOLVEMENT

- 2005-2011 Sherwood Fish and Game Club
- 2002-2012 Alberta Trapper Association: Registered Trapline owner
- 2001-2003 PTA McKernen Junior High School, Edmonton
- 2002-2003 Cancer Society- canvassing, Edmonton
- 200--2003 SWAT Hockey League, Edmonton
- 1995-1997 PTA Steven Point Middle School, Stevens Point
- 1995-1999 Portage County Youth on Ice Hockey League representative

1994-1999 Boy Scouts of America – Pack 292
1994-1999 YMCA, Steven Point, WI