CURRICULUM VITAE

ROBERT L. CRABTREE

crabtree@yellowstoneresearch.org

Dr. Robert (Bob) Crabtree is a system ecologist who brought science to monitoring by developing an Adaptive Impact Monitoring System (AIMM) to recover species populations. It was then applied to land-use planning to aid producers in decision-making for triple wins (economics, land ethic, and biodiversity). He serves as the Science Advisor to the Western Sustainability Exchange (WSE) who works with hundreds of ranchers across the Northern Rockies region to develop regenerative agriculture, coexistence strategies, and a developing biodiversity credit program. He recently developed and led a monitoring program that measured key metrics (plant biomass, songbirds, water quality, water quantity, soil moisture and various wildlife species) on three large Montana ranches to develop verifiable baselines for biodiversity. Throughout Bob's career he has relied upon emerging technologies (ground-based sensors, remote sensing, computer science, modeling, and tried and true methods) to deliver cost-effective solutions to nearly intractable problems.

RESEARCH EXPERTISE AND DEMONSTRATED AUTHORITY ON:

Factors Driving Natural and Policy Experiments in the Yellowstone Ecosystem
Understanding Ecosystem-Scale Science and Conservation Applications
Predator-Prey Relations and Behavioral Ecology
Forecasting Climate Change and Human Impacts on Ecosystems
Population Ecology and Population Demographics
Species-Habitat Modeling and Disturbance Relations
Remote Sensing of Vegetation and Landscape Change
Integrated Sensor Systems for Data Assimilation Modeling and Fusion Techniques
Mechanisms of Animal Movement, Migration, Dispersal, and Colonization
Geospatial Modeling and Integration with Educational Opportunities

EMPLOYMENT/APPOINTMENTS

2025-present	Founder and President of Incline Conservation
1994-2024	Chief Scientist & President, Yellowstone Ecological Research Center
2016-2018	Board Member, Association of Ecosystem Research Centers
2012-2020	Adjunct Faculty and Instructor, University of Victoria
2015-2017	Biological Research Scientist, Terra Remote Sensing
2008-2017	Research Professor, University of Montana
1992-1993	Adjunct Faculty and Lecturer, Montana State University
1991	Research Scientist, National Park Service – Yellowstone NP (GS-11)
1990-1991	Research Associate/Post-doc, University of Idaho (Wildlife Sciences)

EDUCATION

1989	Post-Doctoral Appointment in Forest Ecology, U.C. Berkeley
1988	Ph.D. in Forestry, Wildlife, and Range Sciences, University of Idaho
1984	M.S. in Fisheries and Wildlife, Utah State University
1980	B.S. in Wildlife Sciences, University of Idaho

HONORS/MEMBERSHIPS

Visiting Scholar, Geography Department, University of Victoria
Research Ecologist, Yellowstone Cooperative Park Studies Unit
Special Achievement Award, U.S. National Park Service, 1991
Visiting Scholar, University of California – Berkeley, 1989
U.S. Dept. of Energy, Ph.D. Fellowship with Battelle PNL, 1984-1987
Curt J. Berklund Undergraduate Research Honorarium, 1980
Past Professional Societies & Organizations: Association of Ecosystem Research Centers, Society for Conservation Biology, American Association for the Advancement of Science, Animal Behavior Society, Ecological Society of America, Wildlife Society, American Society of Mammalogists, Alpha Zeta, Xi Sigma Pi

GRANTS/CONTRACTS ($15,677,000 LAST 24 YEARS)**

70 PEER REVIEWED ARTICLES); RESEARCHGATE SCORE (TOP 10%) ~ 4,000 CITATIONS; ALSO SEE: HTTPS://WWW.RESEARCHGATE.NET/PROFILE/ROBERT-CRABTREE-3/STATS

Crabtree RL, Conner M, and Treves A. 2025 (Accepted). Misleading biases in methods for estimating wolf abundance using spatial models. *Academia Biology*

Cross, Patrick R., and **Robert L. Crabtree**. 2021. Recent findings suggest adding red fox (Vulpes vulpes) to climate-threatened whitebark pine (Pinus albicaulis) trophic system. Canadian Journal of Zoology 99(7):618-623. doi: 10.1139/cjz-2020-0198

Carter, Neil H., Jeremy T. Bruskotter, John Vucetich, **Robert L. Crabtree**, Hannah Jaicks, Gabriel Karns, Michael Paul Nelson, Doug Smith, and D. C. Linnell. 2019. Towards Human–Wildlife Coexistence through the Integration of Human and Natural Systems: The Case of Grey Wolves in the Rocky Mountains. Chapter 18 *in* Human–Wildlife Interactions: Turning Conflict into Coexistence. Cambridge University Press. Cambridge, MA.

Brian K Hand, Courtney G Flint, Chris A Frissell, Clint C Muhlfeld, Shawn P Devlin, Brian P Kennedy, **Robert L Crabtree**, W Arthur McKee, Gordon Luikart, and Jack A Stanford. 2018. A social–ecological perspective for riverscape management in the Columbia River Basin. *Frontiers in Ecology and the Environment; 16(S1): S23–S33, doi: 10.1002/fee.1752*

C. Burkhalter, M.J. Holloran, B.C. Fedy, H.E. Copeland, **R.L. Crabtree**, N.L. Michel, S.C. Jay, B.A. Rutledge & A. G. Holloran. 2018. Landscape-scale habitat assessment for an imperiled avian species. *Animal Conservation doi:101111/acv.12382*

Cross PR, Sacks BN, Luikart G, Schwartz MK, Van Etten KW, **Crabtree RL**. 2018. Ancestry and connectivity assessments reveal the persistence of Yellowstone's indigenous montane red foxes. Journal of Fish and Wildlife Management *accepted.*

Jay, Steven, Christopher Potter, **Robert Crabtree**, Vanessa Genovese, Dan Weiss, and Maggi Kraft (in press). Evaluation of Modelled Net Primary Production using MODIS and Landsat Satellite Data Fusion. *Carbon Balance and Management: 11:8. doi:10.1186/s13021-016-0049-6*

Roberts, Devin, **Robert Crabtree**, Kimberly Sager, and Steve Gehman (2018, submitted). A Comparison of Methods for Detecting Carnivores. *Biological Conservation*

Li, Shuang and **Robert Crabtree** (2018, in revision). Improving LiDAR-derived 3D forest structure in mountainous terrain by considering tree species and topography. *Photogrammetric Engineering and Remote Sensing*

Potter C, Li S, **Crabtree R.** 2013. Changes in Alaskan Tundra Ecosystems Estimated from MODIS Greenness Trends, 2000 to 2010. *J Geophys Remote Sensing* 2: 107. doi:10.4172/2169-0049.1000107

Weiss, Daniel, Katie Gibson, Charles Sojka, Jennifer Sheldon, and **Robert Crabtree**. 2012. The Customized Online Aggregation & Summarization Tool for Environmental Rasters (COASTER) system. *Journal of Geographical Information Systems 4:530-541.*

Potter, C., S. Huang, **R. Crabtree**, S. Li, and B. Winkelman, 2012, Mapping post-fire sapling density in Yellowstone from hyperspectral data, *Remote Sensing of Environment 121:61-68*

Fairweather, S., C. Potter, **R. Crabtree**, and S. Li, 2012. A comparison of multispectral ASTER and Hyperspectral AVIRIS Multiple Endmember Spectral Mixture Analysis for sagebrush and herbaceous cover in Yellowstone, *Photogrammetric Engineering & Remote Sensing*, *78: 23-33.*

R. L. Crabtree and J.W. Sheldon. 2012. Monitoring and modeling environmental change in Protected Areas: Integration of focal species populations and remote sensing. *Chapter 21 in Remote Sensing of Protected Lands*, Y.Q. Wang, (ed.). Taylor and Francis, Boca Raton, FL

Potter, Christopher, Steven Klooster, **Robert Crabtree**, Shengli Huang, Peggy Gross, and Vanessa Genovese. 2011. Carbon fluxes in ecosystems of Yellowstone National Park predicted from remote sensing data and simulation modeling. *Carbon Balance and Mangement 6:3-19*

Daniel Weiss and **Robert Crabtree**. 2011. Percent surface water estimation from MODIS BRDF 16-day image composites. *Remote Sensing of Environment 115: 2035-2046.*

Almberg, Emily, Paul C. Cross, L. David Mech, Doug W. Smith, Jennifer W. Sheldon, and **Robert L. Crabtree** 2011. Infectious Diseases in Yellowstone's Canid Community. *Yellowstone Science, vol.19 issue 2*

Geremia, Chris, P. J. White, Rick L. Wallen, Fred G. R. Watson, John J. Treanor, John Borkowski, Christopher S. Potter, and **Robert L. Crabtree**. 2011. Accepted. Predicting Bison Migration out of Yellowstone National Park using Bayesian Models. *PLoS ONE 6(2): e16848. doi:10.1371/journal.pone.0016848*

Hatala, Jaclyn, Michael Dietze, **Robert Crabtree**, the Interagency Whitebark Pine Monitoring Working Group, Katherine Kendall, Diana Six, and Paul Moorcroft. 2011. An ecosystem model of white pine blister rust (Cronartium ribicola) spread in whitebark pine (Pinus albicaulis) of the Greater Yellowstone Ecosystem. *Ecological Applications, 21:1138–1153.*

Hatala, J.A.**,** K. Q. Halligan, **R. L. Crabtree**, and P. M. Moorcroft. 2010. Landscape-scale patterns of forest pathogen damage in the Greater Yellowstone Ecosystem. *Remote Sensing of Environment 114: 375-384.*

Barnowe-Meyer, Kerry, P.J. White, Troy L. Davis, Douglas W. Smith, **Robert L. Crabtree**, and John A. Byers. Influences of wolves and high-elevation dispersion on reproductive success of pronghorn (Antilocapra americana). *J. Mammalogy 91(3): 712-721.*

Sheldon, Jennifer, **Robert Crabtree**, Cheyenne Burnett, Greg Cross, and Kevin Li. 2010. Successful bison calf predation by a long coyote in Yellowstone National Park. *Can Field-Naturalist*.

Robert Crabtree, Chris Potter, Randall Mullen, Jennifer Sheldon, Shengli Huang, Joshua Harmsen, Ann Rodman, and Cathie Jean. 2009. A modeling and spatio-temporal analysis framework for monitoring environmental change using NPP as an ecosystem indicator. *Remote Sensing of Environment 113: 1486-1496*.

Emily Almberg, L. David Mech, Douglas Smith, Jennifer Sheldon, and **Robert Crabtree**. 2009. A Serological Survey of Infectious Disease in Yellowstone National Park's Canid Community. *PLoS ONE 4(9)*. doi:10.1371/journal.pone.0007042e7042. .

Shengli Huang, Christopher Potter, **Robert L. Crabtree**, Stacey Hager, and Peggy Gross, 2009. Fusing optical and radar data to estimate sagebrush, herbaceous, and bare ground cover in Yellowstone. *Remote Sensing of Environment*, *113:1926-1938.*

Alan Swanson, Shengli Huang, and **Robert Crabtree**, 2009. Using a LiDAR Vegetation Model to Predict UHF SAR Attenuation in Coniferous Forests, *Sensors*, 9(3), 1559-1573; doi:doi:10.3390/s90301559 (available at http://www.mdpi.com/1424-8220/9/3/1559)

Shengli Huang, **Robert Crabtree**, Chris Potter, and Peggy Gross, 2009. Estimating the quantity and quality of coarse woody debris in Yellowstone's post-fire forest ecosystem from fusion of SAR and optical data, *Remote Sensing of Environment*, *113: 1926-1938*.

Shengli Huang, Zachary Connaughton, Christopher S. Potter, Vanessa Genovese, **Robert L. Crabtree,** and Pinde Fu. 2009. Modeling Near-Surface Air Temperature from Solar Radiation and Lapse Rate: New Development on Short-Term Monthly and Daily Approach. Physical Geography 30: 517-527.

Shengli Huang, **Robert Crabtree**, Alan Swanson, Kerry Halligan, and Josh Harmsen, 2009. Error analysis and correction for extracting the forest height from airborne C-band interferometric SAR and national elevation datasets. *International Journal of Remote Sensing*, in press.

Shengli Huang, Stacey Hager, Kerry Halligan, Ian Fairweather, Alan Swanson, **Robert Crabtree**, 2009. A comparison of individual tree and forest plot height derived from LiDAR and InSAR. *ASPRS Photogrammetric Engineering & Remote Sensing*, 75(2), 159-167.

Shengli Huang, Paul Rich, **Robert Crabtree**, Chris Potter and Pinde Fu, 2009. Modelling near-surface air temperature from solar radiation and lapse rate: application over complex terrain in Yellowstone National Park, USA. *Physical Geography*, 29(2): 158-178.

Snyder, D. K., J. P. Kerekes, I. Fairweather, R. L. Crabtree, J. Shive, and S. Hager. 2008. Development of a Web-Based Application to Evaluate Target Finding

Alogrithms. Proceedings of the IEEE IGARSS Symposium. See at: https://www.researchgate.net/publication/220820142

Halligan, KQ, Clark ML, Roberts D, **Crabtree RL**. 2007 (in review). A Two-scale Local Minima Filter for Tree Height Estimation from 1st Return Small Footprint LiDAR. *Remote Sensing of the Environment.*

Snyder, D.K., J.P. Kerekes, I. Fairweather, **R.L. Crabtree**, J. Shive, and S. Hager. 2008. Development of a Web-Based Application to Evaluate Target Finding Alogrithms. Proceedings of the IEEE IGARSS Symposium.

Crabtree, RL, Marcus WA, Halligan KQ, Boardman JW, Norland JE, Mirik M, and Peterson CR. 2006. (in review). High Resolution Hyperspectral Data for Remote Measurement of Ecological Variables: Evaluation and Applications. *Photo. Engr. and Remote Sens.*

Van Etten, K. W., K. R. Wilson, and **R. L. Crabtree.** 2007. Habitat use of red foxes in Yellowstone National Park based on snow tracking and telemetry. Journal of Mammalogy 88:1498-1507.

White PJ, TL Davis, KK Barnowe-Meyer, **RL Crabtree**, and RA Garrott. 2007. Partial Migration and Philopatry of Yellowstone Pronghorn. *Biol. Cons. 135: 518-526.*

Saatchi, S., Despain, D., Halligan, K. & **Crabtree, RL**. 2007. Estimation of Forest Fuel Load From Radar Remote Sensing. *IEEE Transactions on Geoscience and Remote Sensing 45:1726-1740.*

Lynch HJ, Moorcroft PR, **Crabtree RL**, and Renkin RA. 2006. The Influence of Previous Mountain Pine Beetle (Dendroctonus ponderosae) Activity on the 1988 Yellowstone Fires. *Ecosystems 9(8):1318-1327.*

Noonburg EG, Newman LA, Lewis M, **Crabtree RL**, Potapov AB. 2006. Sequential decision-making in a variable environment: modeling elk movement in Yellowstone National Park as a dynamic game. *Theor Popul Biol. 71(2):182-195.*

Moorcroft PR, Lewis MA, **Crabtree RL**. 2006. Mechanistic Home Range Models Predict Spatial Patterns and Dynamics of Coyote Territories in Yellowstone. *Proceedings of the Royal Society B 273(1594):1651-1659.*

Mirik, M., JE Norland, ME Biondini, RL Crabtree, and G J Michak. 2006. Capacity of one-meter hyperspectral imagery for biomass prediction in a big sagebrush (*Artemisia tridantata*) dominated area in Yellowstone National Park. *Turkish Journal of Agriculture and Forestry*.

Hannon, MJ, Jenkins SH, **Crabtree RL**, and AK Swanson. 2006. Visibility and Vigilance: Behavior and Population Ecology of Unita Ground Squirrels (*Spermophilis armatus*) in Different Habitats. *J. Mamm. 87(2):287-295.*

Mustafa Mirik, JE Norland, **RL Crabtree**, and ME Biondini. 2005. Hyperspectral One-Meter-Resolution Remote Sensing inYellowstone National Park, Wyoming: I. Forage Nutritional Values. *Rangeland Ecology & Management 58:452-458*.

Swanson, BJ, RT Fuhrmann, and **RL Crabtree**. 2005. Elevational isolation of red fox populations in the Greater Yellowstone Ecosystem. *Conservation Genetics 6(1):123-131*.

Mustafa Mirik, Jack E. Norland, **Robert L. Crabtree**, and Mario E. Biondini. 2005. Hyperspectral One-Meter-Resolution Remote Sensing in Yellowstone National Park, Wyoming: II. Biomass. *Rangeland Ecology & Management 58:459-465*.

Marcus WA, Legleiter CJ, Aspinall RJ, Boardman JW, **Crabtree RL**. 2004. High spatial resolution, hyperspectral mapping of in-stream habitats, depths, and woody debris in third to fifth order riffle/pool mountain streams. *Geomorphology 55:363-380.*

Wilmers CC, **Crabtree RL**, Smith DW, Murphy KM, and Getz WM. 2003. Trophic facilitation by introduced top predators: grey wolf subsidies to scavengers in Yellowstone National Park. *Journal of Animal Ecology 72:909-916.*

Wilmers CC, DR Stahler, **RL Crabtree**, DW Smith, WM Getz. 2003. Resource dispersion and consumer dominance: scavenging at wolf- and hunter-killed carcasses in Greater Yellowstone, USA. Ecology Letters 6 (11), 996–1003.

Crabtree RL, Sheldon JW 1999. Coyotes and Canid Coexistence in Yellowstone National Park. Chapter 6 In Carnivores in Ecosystems; The Yellowstone Experience, T. Clark, P. Curlee, P. Kareiva, and S. Minta, eds., Yale University Press, New Haven, CT.

Moorcroft PR, Lewis MA, **Crabtree RL**. 1999. A mechanistic and spatially explicit model for carnivore home ranges. *Ecology 80(5):1656-1665*.

Johnson, KA and **RL Crabtree**. 1999. Small Prey of Carnivores in the Greater Yellowstone Ecosystem. Chapter 8 In *Carnivores in Ecosystems: The Yellowstone Experience*, T. Clark, P. Curlee, P. Kareiva, and S. Minta, eds., Yale University Press, New Haven, CT.

Crabtree, RL, and JW Sheldon. 1999. The Ecological Role of Coyotes on Yellowstone's Northern Range. *Yellowstone Science 7(2):15-23.*

Allen, JJ, M. Bekoff, and **RL Crabtree**. 1999. An observational study of coyote (Canis latrans) scent-marking and territoriality in Yellowstone National Park. *Ethology **105**:289-302*.

Crabtree RL. 1997. A New Forest Carnivore: Yellowstone's Mountain Fox. *Nat. Wildl. 35(6).*

Gese, EM, RD Schultz, MR Johnson, ES Williams, **RL Crabtree**, and RL Ruff. 1997. Serological survey for diseases in free-ranging coyotes (Canis latrans) in Yellowstone National Park, Wyoming. *Journal of Wildlife Diseases **33**:47-56*.

Gese, E.M., RL Ruff, **RL Crabtree,** 1996. Social and nutritional factors influencing the dispersal of resident coyotes. *Animal Behavior 52, 1025-1043*.

Crabtree RL. 1996. Claws and Hooves in Yellowstone. *Bugle 3:117-120*.

Gese, EM, R.L Ruff, and **RL Crabtree**. 1996. Foraging ecology of coyotes (Canis latrans): The influence of extrinsic factors and a dominance hierarchy. *Canadian Journal of Zoology-Revue Canadienne De Zoologie **74**:769-783*.

Gese, EM., RL Ruff, and **RL Crabtree**. 1996. Intrinsic and extrinsic factors influencing coyote predation of small mammals in Yellowstone National Park. *Canadian Journal of Zoology-Revue Canadienne De Zoologie **74**:784-797*.

Shivik, JA, and **RL Crabtree**. 1995. Coyote Activity Levels in Relation to Presence of California Gulls at Mono-Lake, California. *California Fish and Game **81**:22-28*.

Crabtree RL. 1993. Gray Ghost of the Beartooth. *Yellowstone Science 1(3):13-16.*

Crabtree, RL, 1992. The small mammal prey base for wolves in Yellowstone National Park. In *Wolves for Yellowstone?: A Report to the United States Congress*, Volume IV, Research and Analysis. Yellowstone National Park, WY, 580 pp.

Garton, E.O., **RL Crabtree**, B.B. Ackerman, and G.L. Wright, 1990. The potential impact of a reintroduced wolf population on the northern Yellowstone elk herd. In *Wolves for Yellowstone?: A Report to the United States Congress*, Volume II, Research and Analysis. Yellowstone National Park, WY, 580 pp.

Garton, E.O., **RL Crabtree**, B.B. Ackerman, and G.L. Wright, 1990. The potential impact of a reintroduced wolf population on Clark's Fork elk herd. In *Wolves for Yellowstone?: A Report to the United States Congress*, Volume II, Research and Analysis. Yellowstone National Park, WY, 580 pp.

Crabtree, RL, F.G. Burton, T.R. Garland, D.A. Cataldo, and W.H. Rickard, 1989. Slow-release radioisotope implants as individual markers for carnivores. *J. Wildl. Manage. 5:949-954.*

FF Knowlton, LC Stoddard, **RL Crabtree**, and JW Blatt. 1989. Evaluation of some radioisotopes as marking agents for monitoring bait consumption. *6th Vertebrate Pest Control and Management Materials.*

Crabtree, RL, L.S. Broome, and M.L. Wolfe. 1989. Effects of habitat characteristics on gadwall nest predation and nest-site selection. *J. Wildl. Manage. 53(1):129-137.*

Crabtree, RL, and ML Wolfe. 1988. Effects of Alternate Prey on Skunk Predation of Waterfowl Nests. *Wildlife Society Bulletin **16**:163-169.*

Crabtree, R.L, and L.S. Broome. 1985. Nocturnal observation of foraging striped skunks in a wetland environment. Pages 35-37 *in* R.P. Brooks, tech. ed., Nocturnal mammals: Techniques for study. *School of Forest Resources, Penn. State Univ., Res. Paper No. 48.*

Crabtree, RL. 1980. Habitat selection and interactions between Hammond's Flycatcher and Western Wood Pewee. *For. Wildl. and Range Exp. Station Research Paper No. 205.* 21pp., Moscow, ID. (written as Senior undergraduate at the University of Idaho)

RESEARCH COLLABORATIONS, EDUCATION, AND SERVICE

YERC SUPPORTED GRADUATE STUDENTS AND THOSE DIRECTLY ADVISED*

*Patrick Cross—University of Montana
*Robert (Trapper) Haynam—U. of Montana
*Donald Belile—University of Montana
*Devin Roberts—University of Victoria
*Josh Harmsen—U.C. Berkeley
Jim Lutz—University of Washington
Justin Edge—UT-Chattanooga
*Kerry Halligan—U.C. Santa Barbara
Jon Drake—University of Washington
Carl Legleiter—U.C. Santa Barbara
Jennifer Sheldon—Montana State University
Nathan Varley—University of Alberta
Mike Zambon—Montana State University
Keith Van Etten—Colorado State University
Heather Lynch--Harvard University
Chris Wilmers—U.C. Berkeley
Mitchel Hannon—University of Nevada, Reno
Matt Jones—University of Montana
Craig Anderson—University of Colorado
Danielle Robertson—University of Wyoming
Tracy Graziano—Montana State University
Steve Spear—Idaho State University
Mustafa Mirik—North Dakota State University
Julie Stoughton—Montana State University
Scott Ladd—Montana State University
Jim Rasmussen—Montana State University
Charles Colvard—Rutgers University
Eric Gese—University of Wisconsin
*Kezha Hatier—Montana State University
*Scott Grothe—Montana State University
*Bob Fuhrmann—Montana State University
Julie Grahe—University of Minnesota
Deborah Smith—University of Washington
Lorin Groshong—University of Oregon
Brad Swanson—Purdue University
Paul Moorcroft—Princeton University
Mike Miller—Colorado State University
Joseph Allen—University of Colorado
Laura Newman—University of Utah
Jeffrey Blatt—Eastern Washington University
Adam Switalski—Utah State University
Nancy Hoffman—Montana State University
Kim Heinemeyer—U.C. Santa Cruz
Todd Royer—Idaho State University

POST-DOCTORAL APPOINTMENTS ADVISED

Curtis Burkhalter (co-advise), Audubon Society
Daniel Weiss, Oxford University
Amy Trowbridge (co-advise), Montana State University
Junfeng Lu, Syracuse University
James Irvine, Montana State University
Jon Way, Tufts University
James Forester (co-advise), University of Minnesota
Shengli Huang, USGS (South Dakota State University)
Erik Noonburg (co-advise), Florida Atlantic University
Dean Koch, University of Alberta

RECENT RECIPIENTS OF GRANTS/CONTRACTS AWARDED FROM YERC (2006-2024)

U.C. - Berkeley
Colorado State University
Montana State University (2)
Harvard University (2)

University of Idaho	NASA JPL
University of Washington	Project WET
U.C. - Santa Barbara (2)	Montana Outdoor Science School
NASA Ames (3)	Turner Endangered Species Fund
NASA Goddard (2)	RMC (Fire Lab – Ft. Collins)

OTHER

1993-1999 Adult Education Outdoor Field Courses = **572 individuals** for ~ 1 week each
1989-2024 Field Interns = **430 individuals** (with B.S. or B.A.) for 3 to 6 months each

TEACHING/COURSES

University of Montana 2011:
- Forest and Grassland Ecology

Montana State University 1991-95:
- Ecosystem Management (graduate level)
- Management of Game Bird Populations (graduate level required course)
- Predator Ecology (senior and graduate level)

U.S. National Park Service, Yellowstone National Park 1990-91:
- Biological Statistics and Research Design
- Quantitative Methods for Ecological Research and Population Sampling

University of California – Berkeley 1989:
- Quantitative Methods for Wildlife Research (graduate level)
- Case Histories in Wildlife Management (junior/senior level)

ADMINISTRATIVE EXPERIENCE, COLLABORATIONS, MENTORING

As President of the Yellowstone Ecological Research Center, I supervised a team of employees to create annual budgets, ensure monthly payroll, and oversee audits, among other responsibilities. YERC has been described as somewhere between a faculty lab and an academic department.

Our growth and success have been attributed mainly to our ability to create collaborative partnerships—I have crafted over 47 MOUs, MOAs, CRADAs, etc. over 30 years with agencies and universities. Also central to our success is the expertise of our Scientific Advisory Council and our collaborators, who have served as co-Is or PIs on our numerous collaborative projects. We have also partially or fully funded 40 graduate students listed below on YERC projects (see below).