

JANET L. LOXTERMAN

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EDUCATION

- 1996 - 2001 Ph.D., Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 1992 - 1995 M.S., Department of Biological Sciences, Virginia Commonwealth University, Richmond, Virginia.
- 1988 - 1992 B.S. Behavioral Neuroscience, Lehigh University, Bethlehem, Pennsylvania.

PROFESSIONAL EXPERIENCE

- 2020 – present Chair, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 2019 – present Professor, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 2017 – 2020 Associate Chair, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 2014 – 2019 Associate Professor, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 2014 – 2015 Associate Chair, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 2008 – 2014 Assistant Professor, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 2003 – 2008 Assistant Lecturer, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 2002 – 2003 Biologist, Genetics Lab, Conservation Biology Unit, Fish Program, Washington Department of Fish and Wildlife, Olympia, Washington.
- 2001 – 2002 Postdoctoral Research Associate, Institute of Arctic Biology, University of Alaska, Fairbanks, Alaska.
- 1998 – 2001 Research Assistant, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 1996 – 1998 Graduate Teaching Assistant, Department of Biological Sciences, Idaho State University, Pocatello, Idaho.
- 1994 – 1996 Research Biologist, Division of Mammals, Virginia Museum of Natural History, Martinsville, Virginia.

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1992 – 1994 Graduate Teaching Assistant, Department of Biological Sciences, Virginia Commonwealth University, Richmond, Virginia.

TEACHING EXPERIENCE

Courses Taught: Biology I (Majors), Wonder About Biology, Genetics, Evolution, Senior Seminar, Graduate and Undergraduate Teaching Assistant Seminar, Population Biology, Advanced Topics in Genetics, Evolutionary Ecology, Landscape Genetics

GRADUATE STUDENTS

Tyler Breech, PhD Candidate, Evolutionary history and adaptive capacity in rainbow trout across its range. August 2019-present.

Adam Zambie, Master of Science Candidate, Does habitat extent predict a decline in genetic diversity for redband trout (*Oncorhynchus mykiss gairdneri*) populations? Graduated May 2025.

Kyle Rufo, Master of Science Candidate, Determining the extent of intraspecific introgression on the population genetic structure of Redband Trout (*Oncorhynchus mykiss gairdneri*) in northeastern Nevada. Graduated August 2024.

Brandy Smith, Master of Science Candidate, Genetic and morphometric tools to identify species diversity of sucker fishes in the intermountain western United States. Graduated August 2022.

Benjamin Kline, Master of Science Candidate, DNA methylation as a source of adaptive variation in ectotherms from contrasting thermal environments. Graduated May 2022.

Kendra Eaton, Master of Science Candidate. Connections or Containers: Using Genetic Data to Understand How Watershed Evolution and Human Activities May Influence Cutthroat Trout Biogeography. Graduated December 2017.

Corrine Coffman, Master of Natural Science Candidate. Graduated May 2016.

Sammy L. Matsaw, Master of Science Candidate. The influence of barriers to movement on the genetic population of structure of westslope cutthroat trout in the Salmon River watershed. Graduated August 2014.

Jason R. Blakney, Master of Science Candidate. Watershed boundaries and the phylogeography of leatherside chub in the Intermountain West. Graduated August 2012.

PUBLICATIONS

Zambie, A.D., J. L. Loxterman, T. M. Breech, S. R. Narum, and E. R. Keeley. 2026. Extent of stream habitat and hybridization influence levels of genetic diversity in Redband Trout (*Oncorhynchus mykiss gairdneri*) populations. *Conservation Genetics* 27, 1. <https://doi.org/10.1007/s10592-025-01734-x>

Smith, B. A, E. R. Keeley, T. B. Hallbert, and J. L. Loxterman. Linking genetic and morphological data to identify closely related and co-occurring catostomid fishes. 2025. *North American Journal of Fisheries Management* 45:431-444.

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Hargrove, J.S., M. R. Campbell, B. High, C. Johnson, K. Gunnell, P. A. Kennedy, J. L. Loxterman, M. B. Ptacek, S. M. Seiler and E. R. Keeley. 2024. Interspecific hybridization in a large-river population of Yellowstone Cutthroat Trout: A 20-year programmatic evaluation. *North American Journal of Fisheries Management* 44:747-762.

Chen, Z., L. Grossfurthner, J. L. Loxterman, J. Masingale, B. Richardson, T. Seaborn, B. Smith, L. Waits, and S. Narum. 2022. Applying genomics in assisted migration under climate change: empirical applications, case studies and guidelines. *Evolutionary Applications* 15:3-21.

Keeley, E.R., J. L. Loxterman, S. L. Matsaw, Z. M. Njoroge, M. B. Seiler, and S. M. Seiler. 2021. Morphological and genetic concordance of cutthroat trout (*Oncorhynchus clarkii*) diversification from western North America. *Canadian Journal of Zoology* 99:235-248.

Eaton, K.R., J.L Loxterman, and E.R. Keeley. 2018. Connections and containers: Using genetic data to understand how watershed evolution and human activities influence cutthroat trout biogeography. *PLoS ONE* 13(8): e0202043. <https://doi.org/10.1371/journal.pone.0202043>.

Campbell, M.R., E. R. Keeley, C. C. Kozfkay, J.L. Loxterman, P.R. Evans, and D.K. Shiozawa. 2018. Describing and preserving the diversity of cutthroat trout in the Yellowstone River, Snake River and Bonneville Basin. *In*: P. Trotter, P. Bisson, and L. Schultz; *Evolutionary Biology of the Cutthroat Trout*. American Fisheries Society, Bethesda MD.

Young, M.K., K.S. McKelvey, T. Jennings, K. Carter, R. Cronn, E.R. Keeley, J.L. Loxterman, K. Pilgrim, and M. K. Schwartz. 2018. The phylogeography of westslope cutthroat trout. *In*: P. Trotter, P. Bisson, and L. Schultz; *Evolutionary Biology of the Cutthroat Trout*. American Fisheries Society, Bethesda MD.

Hill, R, J. L. Loxterman, K. Aho. 2017. Insular biogeography and population genetics of dwarf mistletoe (*Arceuthobium americanum*). *Ecosphere* 8:1-17.

Loxterman, J. L, E. R. Keeley, and Z. M. Njoroge. 2014. Evaluating the influence of barriers to movement and stocking history on the spatial extent of hybridization between westslope cutthroat trout and rainbow trout. *Canadian Journal of Fisheries and Aquatic Sciences*, 71:1050-1058.

Blakney, J. R., Loxterman, J. L. and E. R. Keeley. 2014. Range-wide comparisons of northern leatherside chub populations reveal historical and contemporary patterns of genetic variation. *Conservation Genetics*, 15:757-770.

Loxterman, J. L. and E. R. Keeley. 2012. Watershed boundaries and geographic isolation: diversification in cutthroat trout in the Intermountain west. *BMC Evolutionary Biology*, 12:38.

Loxterman, J. L. 2011. Fine scale population genetic structure of pumas in the Intermountain West. *Conservation Genetics*, 12:1049-1059.

Cook, J. A, A. A. Eddingsaas, J. L. Loxterman, S. Ebbert, and S. O. MacDonald. 2010. Insular Arctic ground squirrels (*Spermophilus parryii*) of the North Pacific: Indigenous or Exotic? *Journal of Mammalogy*, 91:1401-1412.

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Webster, W.D., N. D. Moncrief, B. E. Gurshaw, J. L. Loxterman, R. K. Rose, J. F. Pagels, S. Y. Erdle, 2009. Morphometric and allozymic variation in the southeastern shrew (*Sorex longirostris*). *Jeffersoniana* 21:1-13.

Dalerum, F., J. L. Loxterman, B. Shults, K. Kunkel, and J. A. Cook. 2007. Sex specific dispersal patterns of wolverines: insights from microsatellite markers. *Journal of Mammalogy* 88:793-800.

Small, M. P., J. G. McLellan, J. L. Loxterman, J. F. Von Bargen, A. E. Frye, C. Bowman, and D. Hawkins. 2007. Fine-scale population structure of rainbow trout (*Oncorhynchus mykiss*) in the Spokane River drainage in relation to hatchery stocking and barriers. *Transactions of the American Fisheries Society*, 136:301-317.

Laundré, J. W. and J. L. Loxterman. 2007. Impact of edge habitat on summer home range size in female pumas. *American Midland Naturalist* 157:221-229.

Small, M. P, J. L. Loxterman, A.E. Frye, J.F. Von Bargen, C. Bowman and S.F. Young. 2005. Temporal and spatial genetic structure among some Pacific herring (*Clupea pallasii*) populations in Puget Sound and the southern Strait of Georgia. *Transactions of the America Fisheries Society* 134:1329-1341.

Loxterman, J. L., N. D. Moncrief, R. D. Dueser, C. R. Carlson, and J. F. Pagels. 1998. Allozymic variation in sympatric, insular and mainland populations of *Oryzomys palustris* and *Peromyscus leucopus*: the effect of dispersal abilities on genetic population structure. *Journal of Mammalogy*, 79:66-77.

TECHNICAL REPORTS

Loxterman, J.L., K. Knapp, R. Whitworth, and L. Denney. 2014. Genetic analysis of the origin of Yankee Fork Chinook salmon. Shoshone-Bannock Tribes report.

Kassler, T. W. and J. L. Loxterman. 2006. Mixture analysis of Lake Roosevelt kokanee fisheries and genetic characterization of Lake Roosevelt kokanee populations. Washington Department of Fish and Wildlife report

Busack, C. A., A.L. Fritts, and J. L. Loxterman. 2003. Yakima/Klikitat Fisheries project genetic studies; Yakima/Klikitat fisheries project monitoring and evaluation, 2001-2002 Annual Report. Technical Report, DOE/BP 00004666-13.

Loxterman, J. L. and S. F. Young. 2003. Geographic population genetic structure of steelhead in the Yakima River Basin. Washington Department of Fish and Wildlife report.

GRANTS

National Science Foundation S-STEM, “SPARK a FIRE for Transfer Student Success Using a Multidisciplinary Approach.” Submitted as Co-PI with Anna Grinath, Julia Martin, Joshua Pak. Research Training Grant (\$1,499,956). Sep 2022 – Sep 2027.

Idaho EPSCoR GEM3 Seed grant, “Operationalizing a Socio-Ecological Systems Framework for Examining Trout Phylogenetics.” Submitted as PI with Kimberly Andrews, Tyler Breech, Morey Burnham, Chris Caudill, Sarah Ebel, Ernest Keeley, Shawn Narum and Travis Seaborn. Research Grant (\$150,000). Feb 2020. Not Funded.

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National Science Foundation EPSCoR, “RII Track-2 FEC: Uncovering the genomic architecture of adaptive phenomes to enhance salmon rewilding.” Submitted as Co-PI with Marlis Douglas, Michael E. Douglas, Melissa L. Evans, and Ernest R. Keeley. Research Grant (\$3,986,433). Jan 2018. Not Funded.

National Science Foundation EPSCoR, “RII Track-1: Linking Genome to Phenome to Predict Adaptive Responses of Organisms to Changing Landscapes.” Submitted as Senior Personnel with Co-PI Janet Nelson, Colden V. Baxter, Jennifer Forbey, and Ronald W. Hardy. Research Grant (\$20,000,000). Aug 2018 – Aug 2023.

College of Science and Engineering Internal Grant, “Phylogeography of a polytypic species: the rainbow trout (*Oncorhynchus mykiss*).” Research Grant (\$2,500). Jan 2018 - Dec 2018.

US Fish and Wildlife Service, “Trumpeter Swan genetics.” Pilot Study Grant (\$2,000). Sep 2017.
US Fish and Wildlife Service Tribal Grant Program, “Uncovering the genomic and phenotypic underpinnings of captive rearing associated domestication to enhance salmon recovery.” Submitted as Co-PI with Melissa L. Evans, Marlis R. Douglas, Michael E. Douglas, Ernest R. Keeley, Kenneth Rodnick. Research Grant (\$199,658.92). Sep 2017. Not Funded.

ISU Office of Research, “Uncovering the genomic architecture of adaptive phenomes to enhance salmon rewilding.” Submitted as Co-PI with Marlis R. Douglas, Michael E. Douglas, Melissa L. Evans, Ernest R. Keeley, Kenneth Rodnick, Michael Thomas. Seed Grant (\$19,971). Mar 2017. Not Funded.

National Science Foundation Preliminary Proposal “Does Reticulate Evolution Promote Genetic Change as a Response to Environmental Change?” Submitted as Co-PI with Marlis R. Douglas, Michael E. Douglas, Ernest R. Keeley. Jan 2016. Not Invited.

National Science Foundation, “MRI: Acquisition of a Next-Generation genome sequencer for research and education.” Submitted as Co-PI with Michael Thomas, Erin O’Leary-Jepson, Timothy Magnuson. Instrumentation Grant (\$294,500). Jan 2016. Not Funded.

ISU Office of Research, “Phylogeography of a polytypic species: the rainbow trout (*Oncorhynchus mykiss*).” Research Grant (\$2500). Nov 2016 – May 2017.

Molecular Research Core Facility Graduate Student Seed Grant, Idaho State University, “Connections or Containers: Using genetic data to understand how watershed connections and nonnative species influence cutthroat trout distribution.” Submitted as Co-PI with Kendra Eaton, Ernest R. Keeley. Research Grant (\$500). Oct 2016.

National Science Foundation, “Sacred Learning Places (SLP) with Communities on the River (COTR).” Submitted as Co-PI with Ernest R. Keeley. Research Grant (\$2,786,312). Nov 2015. Not Funded.

Idaho EPSCoR iSeed, “Evaluating the effects of habitat fragmentation on the genetic diversity in cutthroat trout inhabiting stream ecosystems.” Research Grant (\$29,783.20). Spring 2014. Not Funded.

Shoshone-Bannock Tribes, “Genetic analysis of the origin of Yankee Fork Chinook salmon.” Research Grant (\$20,000). Sep 2013- Sep 2014.

Western Division, American Fisheries Society, International Travel Grant (\$1465).

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National Science Foundation CAREER Proposal, “Historical phylogeography and evolutionary diversification: using the Great Basin as a landscape for learning.” Research Grant (\$590,417). Jul 2013. Not Funded.

Great Northern Landscape Conservation Cooperative, “Building the biodiversity portfolio for aquatic species in the Inland Northwest: a guide for managers.” Submitted as Co-PI with Michael Young, Kevin McKelvey, Dan Isaak, Ernest Keeley, Lisa Eby, Matthew Campbell, and Jason Dunham. Research Grant (\$143,321). Jun 2013. Not Funded.

National Science Foundation Preliminary Proposal “Bioenergetic calculations as a means of estimating and predicting temperature-induced changes to habitat quality for stream fishes.” Submitted as Co-PI with Ernest Keeley and Ed Galindo. Jan 2013. Not Invited.

National Science Foundation Division of Undergraduate Education “Early integration of research experiences into the undergraduate biology curriculum.” Submitted as Co-PI with Jeffrey Hill and Carolyn Weber. Research/Teaching Grant (\$199,791). May 2012 – May 2015.

University Research Committee, Idaho State University, “D2 Dopamine Receptors and Demand for Food in Obese Zucker Rats and Humans: A Translational Study.” Submitted as Co-PI with Erin Rasmussen. Research Grant (\$17,000). May 2012 – Feb 2014.

National Science Foundation EPSCoR Concept Preliminary Proposal, “Filling the pool: evaluating the effects of stream habitat fragmentation and isolation as a means of increasing the retention and flow of students from Idaho’s citizenry into higher education.” Invited to participate in Idaho EPSCoR Brainstorming workshop, Feb 2012.

National Science Foundation Preliminary proposal, “Integrating genetic diversity and habitat suitability to quantify the effects of habitat fragmentation in stream ecosystems.” Submitted as Co-PI with Ernest Keeley. Jan 2012. Not Invited.

Molecular Research Core Facility Graduate Student Seed Grant, Idaho State University, “Population genetic structure and abundance of northern leatherside chub.” Submitted as Co-PI with Jason Blakney and Ernest Keeley. Research Grant (\$500). May 2011.

United States Fish and Wildlife Service Research Grant, “Distribution, abundance, and genetic population structure of northern leatherside chub in the Snake River Basin of Idaho.” Submitted as Co-PI with Ernest Keeley. Research Grant (\$81,900). Aug 2009 – Sep 2012.

WeLEAD Research Grant, “Phylogeography of Catastomid fishes in the Intermountain West.” Research Grant (\$3,444). May 2010 – Aug 2010.

Stoller Corporation, “The effect of population size and barriers to movement on the distribution of geographic population genetic structure of small mammals at the Idaho National Laboratory. Research Grant (\$80,845.69). Not Funded.

Molecular Research Core Facility Graduate Student Seed Grant, Idaho State University, “The influence of barriers to movement on the genetic population structure of westslope cutthroat trout (*Oncorhynchus clarkii lewisi*) in the traditional-use area of the Shoshone-Bannock Tribes (the Salmon River Basin) in central Idaho.” Submitted as Co-PI with Sammy Matsaw and Ernest Keeley. Research Grant (\$500). May 2009.

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Bear River Environmental Coordination Committee, “Identifying conservation units of freshwater fishes in the Bear River watershed.” Submitted as Co-PI with Ernest Keeley. Research Grant (\$72,620.90). Not Funded.

WeLEAD Research Grant, “Temporal and spatial influences of barriers to movement on genetic variation in westslope cutthroat trout.” Research Grant (\$14,942.73). Aug 2008 – Aug 2010.

Idaho Technology Incentive Grant, State Board of Education, “WILDEST: Workshop-Integrated Learning for Dual Enrollment Secondary Teachers.” 2007. Submitted as a collaborator with PI Stephen Adkison, and CO PI’s Terry Engebretsen and Barbara Bishop. (\$121,000). Not Funded.

Norwegian Institute for Nature Research, “The sociobiology of solitary living: linking the ecology of space use with the genetics of relatedness in large felids.” 2006. Submitted as a collaborator with CO PI’s John D. C. Linnell and Øystein Flagstad. Not Funded.

Department of Biological Sciences, Idaho State University, “The relationship between dispersal and gene flow among populations of mountain lions (*Puma concolor*) in Idaho.” Research Grant (\$500).

Graduate Student Research and Scholarship Committee, “Dispersal and gene flow among populations of mountain lions in fragmented habitat.” 1999. Research Grant (\$840).

National Science Foundation, Dissertation Improvement Grant, “The relationship between dispersal and gene flow among subpopulations of mountain lions.” 1999. Research Grant (\$9000). Not Funded.

Graduate Student Research and Scholarship Committee, “Genetic variation and gene flow within and among populations of mountain lions (*Puma concolor*) in Idaho.” 1997. Research Grant (\$570).

PRESENTATIONS

What’s in a name? Assessing genetic variation in Idaho Redband Trout. (T. Breech, E. Keeley). 3MT presentation. Idaho State University Graduate School, November 2025.

Stream habitat extent and hybridization determine genetic diversity of Redband Trout populations. (A. Zambie, E. Keeley). American Fisheries Society, Boise, Idaho, April 2025.

Examining the evolutionary history of Rainbow Trout. (T. Breech, E. Keeley). 28th NSF EPSCoR National Conference, Omaha, Nebraska, October 2024.

Examining the evolutionary history of Rainbow Trout using mitochondrial sequences and nuclear single nucleotide polymorphisms. (T. Breech, E. Keeley). American Fisheries Society, Spokane, Washington, May 2024.

Interspecific hybridization in a large-river population of Yellowstone cutthroat trout: a 20-year programmatic evaluation. (J. Hargrove, M. Campbell, K. Gunnell, B. High, C. Johnson, P. Kennedy, M. Ptacek, S. Seiler, E. Keeley). American Fisheries Society, Spokane, Washington, May 2024.

Introgression in native Redband Trout from a desert watershed. (K. Rufo, E. Keeley, S. Narum). American Fisheries Society, Spokane, Washington, May 2024.

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Does habitat extent predict a decline in genetic diversity for fragmented populations of redband trout? (A. Zambie, E. Keeley, S. Narum). American Fisheries Society, Spokane, Washington, May 2024.

Adaptive capacity across scales: from genomes to landscapes in rainbow trout (T. Seaborn, M. Keefer, Z. Chen, J. Masingale, S. Narum, A. Ringelman, E. Keeley, L. Huang, K. Andrews, T. Link, E. Du, K. Griswold, B. Kline, P. Hohenlohe, L. Waits, D. Pradhan, A. Wooding, B. Small, C. Caudill). American Fisheries Society Annual Meeting, Honolulu, Hawaii, September 2024.

Evolutionary diversification of rainbow trout from Western North America. (T. Breech, E. Keeley). Coastwide Salmonid Genetic Conference, Boise, Idaho, June 2023.

Intraspecific variation in native Rainbow Trout: a comparison of morphological and genetic diversity. (T. Breech, E. Keeley). American Fisheries Society Annual Meeting, Baltimore, Maryland, November 2021.

Cryptic Catostomids: Using morphological and genetic data to assess species diversity in bluehead and mountain suckers across watershed boundaries. (B. Smith, E. Keeley), American Fisheries Society Annual Meeting, Baltimore, Maryland, November 2021.

DNA-methylation profiles of redband trout from desert and montane environments. (B. Kline, E. Keeley). American Fisheries Society, Boise, Idaho (virtual), March 2021.

Genetic and morphometric tools to identify species diversity of catostomid fishes in the intermountain western United States. (B. Smith, E. Keeley). American Fisheries Society, Boise, Idaho (virtual), March 2021.

Genetic analysis of native redband trout legacy samples in Idaho. (T. Breech, E. Keeley, S. Narum). American Fisheries Society, Boise, Idaho (virtual), March 2021.

What is the native distribution of rainbow trout and related subspecies in western North America? (T. Breech, E. Keeley). American Fisheries Society, Couer d'Alene, Idaho, March 2020.

Epigenetic variation as a potential mechanism for generating phenotypic plasticity in locally adapted ectotherms (B. Kline, E. Keeley). American Fisheries Society, Couer d'Alene, Idaho, March 2020.

Genetic and morphometric tools to identify species diversity of catostomid fishes in the intermountain western United States (B. Smith, T. Hallbert, E. Keeley). American Fisheries Society, Couer d'Alene, Idaho, March 2020.

What are the major phylogenetic lineages of rainbow trout (*Oncorhynchus mykiss*) and their geographic ranges? (T. Breech, E. Keeley). 2019 Idaho EPSCoR Annual Meeting, December 2-3, 2019. Boise, ID. Meristic and Morphological Analysis Provides Evidence for Distinctiveness Between Populations of Bluehead Suckers (*Catostomus discobolus*) (B. Smith, T. Hallbert, E. Keeley). American Fisheries Society, Boise, Idaho, March 2019.

Connections or containers: Using genetic data to understand how watershed evolution and human activities may influence cutthroat trout biogeography (K. Eaton, E. Keeley). American Fisheries Society, Idaho Falls, Idaho, March 2018.

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Genetic tools for species conservation. The Honor Society of Phi Kappa Phi Scholarly Lecture, Invited Speaker. Pocatello, Idaho, October 2017.

Yankee Fork Salmon River Chinook salmon mixed stock genetics evaluation. Shoshone-Bannock Tribes/Yankee Fork, Idaho Team Meeting. Fort Hall, Idaho. April 2017.

Connections or containers: Using genetic data to understand how watershed evolution and human activities may influence cutthroat trout biogeography (K. Eaton, E. Keeley). American Fisheries Society, Boise, Idaho, March 2017.

Intraspecific morphological and genetic diversification of cutthroat trout from western North America (E. Keeley). National American Fisheries Society annual meeting, Portland, Oregon. August 2015.

The phylogeography of westslope cutthroat trout based on whole-mitome sequences and nuclear SNP markers (M.K. Young, K.S. McKelvey, D. Bingham, R. Cronn, E. Keeley, M. K. Schwartz). National American Fisheries Society annual meeting, Portland, Oregon. August 2015.

Population genetic structure of Yellowstone and Bonneville cutthroat trout in a contact zone (S. Gregory, K. Knapp, E. Keeley). American Fisheries Society annual meeting, Boise, Idaho. March 2015.

Evaluating the effects of barriers to movement and stocking history on the extent of hybridization between westslope cutthroat trout and rainbow trout (E. Keeley, Z. Njoroge). Western Division American Fisheries Society Meeting, Mazatlan, Mexico. April 2014.

Intraspecific morphological and genetic diversification of cutthroat trout from western North America. (E. Keeley). Western Division American Fisheries Society Meeting, Mazatlan, Mexico. April 2014.

Natural or Unnatural? Understanding the geographic distribution of Bonneville and Yellowstone cutthroat trout (M. Alenezy, C. Andrus, J. Delgado, S. Gregory, T. Harding, A. Horvath, A. Jenson, K. Knapp, T. Neibaur, M. Ramirez, P. Ropski, D. Viall, R. Whitworth, J. Wolk, E. Keeley). AMOEBA Poster, Biology Research Symposium, April 2014.

Using a mentored learning community to include freshmen in discovery-based research (J. Hill, C. Weber, K. Boydston, T. Goodnoe). CUREnet Conference on Course-Based Undergraduate Research Experiences, Cold Spring Harbor, New York, March 2014.

Effects of stocking history and barriers to movement on the pattern of hybridization in cutthroat trout populations (E. Keeley, S. Matsaw, Z. Njoroge). Western Division American Fisheries Society, Boise, Idaho. April 2013.

The phylogeography of westslope cutthroat trout based on whole-mitome sequences and nuclear SNP markers (M. Young, K. McKelvey, T. Jennings, K. Armes R. Cronn, E. Keeley, and M. Schwartz). Western Division American Fisheries Society, Boise, Idaho. April 2013.

Watershed boundaries and geographic isolation: patterns of diversification in cutthroat trout from western North America (E. Keeley). Western Division of the American Fisheries Society, Jackson, Wyoming. March 2012.

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Distribution, habitat associations, and genetic diversity of northern leatherside in Wyoming (L. Shultz, J. Blakney, E. Keeley). Western Division of the American Fisheries Society, Jackson, Wyoming. March 2012.

Distribution and genetic structure of a needle in the fragmented haystack: The tale of a rare high desert minnow, the northern leatherside chub (J. Blakney, E. Keeley). Idaho Chapter of the American Fisheries Society, Couer d'Alene, Idaho. March 2012.

Influence of barriers to movement on the population genetic structure of westslope cutthroat trout (S. Matsaw, E. Keeley). Idaho Chapter of the American Fisheries Society, Coeur d'Alene, Idaho. March 2012.

Natural history and population structure of pumas in the Intermountain west. Pocatello Zoo, Pocatello, Idaho. August 2011.

Phylogenetic relationships of cutthroat trout: does evolutionary history reflect geological history? (E. Keeley). Idaho Chapter of the American Fisheries Society, Boise, Idaho. March 2011.

Detecting the disjunctly distributed: the case of the northern leatherside chub in Idaho. (J. Blakney, E. Keeley). Idaho Chapter of the American Fisheries Society, Boise, Idaho. March 2011.

Evolutionary relationships of cutthroat trout: does evolutionary history reflect geological history? (E. Keeley). WeLead Research Symposium, Idaho State University, Pocatello, Idaho. January 2011.

Range-wide phylogenetic analysis of cutthroat trout subspecies (*Oncorhynchus clarkii* spp.) from western North America (E. Keeley). International Symposium: Advances in the Population Ecology of Stream Salmonids, Lueca, Spain. May 2010.

Patterns of hybridization in westslope cutthroat trout and rainbow trout (Z. Njoroge, S. Matsaw, and E. Keeley). Idaho State University Undergraduate Research Symposium, Pocatello, Idaho, April 2010.

Range-wide phylogenetic analysis of cutthroat trout subspecies (*Oncorhynchus clarkii* spp.) from western North America (E. Keeley). Idaho Chapter of the American Fisheries Society, Pocatello, Idaho, March 2010.

Barriers to movement and genetic population structure of westslope cutthroat trout (*Oncorhynchus clarkii lewisi*) in the Salmon River Basin, Idaho (S. Matsaw and E. Keeley). Idaho Chapter of the American Fisheries Society, Pocatello, Idaho, March 2010.

The effect of barriers to movement on the population genetic structure and hybridization of cutthroat trout in the Salmon River Basin. WeLead Research Symposium, Pocatello, Idaho. November 2009.

Barriers to movement and genetic population structure of westslope cutthroat trout (*Oncorhynchus clarkii lewisi*) in the traditional-use area of the Shoshone-Bannock Tribes (the Salmon River Basin) of central Idaho (S. Matsaw and E. Keeley). Bioinformatics Workshop, Lava Hot Springs, Idaho. October 2009.

Microsatellite markers do not suggest sex-biased dispersal in a solitary carnivore, the wolverine (F. Dalerum, B. Shults, K. Kunkel, and J. Cook). 1st International Symposium on Wolverine Research and Management. Jokkmokk, Sweden. June 2005.

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Geographic population genetic structure of steelhead (*Oncorhynchus mykiss*) in the Yakima River Basin. Yakima Basin Aquatic Science and Management Conference, Ellensburg, Washington. March 2003.

Conservation of pumas (*Puma concolor*) in fragmented habitat. Winthrop University, Rock Hill, South Carolina. September 2002. Invited Speaker.

Ecology and genetics of pumas in the western United States. Washington Department of Fish and Wildlife, Olympia, Washington. September 2002.

Conservation genetics of pumas (*Puma concolor*) in Idaho. Idaho Chapter The Wildlife Society, Idaho Falls, Idaho. March 2002. The impact of habitat fragmentation on the population genetic structure of pumas (*Puma concolor*). Lehigh University, Bethlehem, Pennsylvania. November 2001. Invited Speaker.

The relationship between dispersal and gene flow among fragmented populations of pumas. 6th Mountain Lion Workshop, San Antonio, Texas. December 2000.

Population subdivision of pumas (*Puma concolor*) in Idaho based on microsatellite diversity. Society for Conservation Biology, Missoula, Montana. June 2000.

Population subdivision in a fragmented landscape: microsatellite variation in pumas. Society for the Study of Evolution, Madison, Wisconsin. June 1999.

Allozymic variation in mainland and insular populations of *Oryzomys palustris* and *Peromyscus leucopus*. American Society of Mammalogists, Washington D. C. June 1994.

Genetic variation among populations of *Oryzomys palustris* and *Peromyscus leucopus* on the Virginia Barrier islands and Delmarva Peninsula. Virginia Academy of Science, Harrisonburg, Virginia. May 1994.

PROFESSIONAL SERVICE

Idaho State University Early College Program Advisory Board (2005- present)

NSF EPSCoR GEM3 ISU Lead, Research and Education Convergence Team, responsible for facilitating effective team science/education strategies, implementing the GEM3 research, education and workforce development agenda (2018-2023).

NSF EPSCoR GEM3 ISU Lead, Vertically Integrated Projects, use VIP to establish an on-ramp for students and provide training, mentoring and professional development support to both students and faculty at ISU (2018-2023).

Idaho State University Early College Program Faculty Liaison (2005-2020)

Member American Fisheries Society (Genetics Subunit), Phi Kappa Phi Honors Society

Panel member for the National Science Foundation (January 2015, February 2009)

Journal referee for Biological Journal of Linnean Society, Journal of Mammalogy, Marine and Freshwater Research, Wildlife Biology, Evolution, North American Journal of Fisheries Management, Transactions of the American Fisheries Society, Environmental Biology of Fishes, Conservation Genetics, Fisheries