

VIERLING, Kerri T.

CURRICULUM VITAE

University of Idaho

NAME: Kerri Tashiro Vierling

DATE: February 7, 2022

RANK OR TITLE: Professor

DEPARTMENT: Fish and Wildlife Sciences

OFFICE LOCATION AND CAMPUS ZIP: College of Natural Resources Bldg., Room 105E

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WEB: <http://www.uidaho.edu/cnr/fishwild/kerrivierling>

DATE OF FIRST EMPLOYMENT AT UI: Fall, 2004

DATE OF TENURE: July 1, 2008

DATE OF PRESENT RANK OR TITLE: Professor

EDUCATION BEYOND HIGH SCHOOL:

Degrees:

Ph.D., Environmental Biology, University of Colorado, Boulder, CO, 1998

M.S., Environmental Biology, University of Colorado, Boulder, CO, 1994

B.A. The Colorado College, Colorado Springs, CO, Biology. 1990

EXPERIENCE:

Teaching, Extension and Research Appointments:

Full Professor, University of Idaho (July 2015-present)

Visiting Scientist, Center for Tropical Agriculture and Ecology (CATIE), Costa Rica (2010-present)

Associate Professor, University of Idaho (July 2008-June 2015)

Assistant Professor, University of Idaho (August 2007 – July 2008; full-time appointment)

Assistant Professor, University of Idaho (September 2004 – August 2007; 75% time appointment)

Associate Professor, South Dakota School of Mines and Technology (July 2004-August 2004)

Assistant Professor, South Dakota School of Mines and Technology (August 1999 –June 2004)

Visiting Professor, South Dakota School of Mines and Technology (August 1998 – July 1999)

Visiting professor, University of Colorado (Summer 1999)

Graduate Research and Teaching Assistant, University of Colorado (September 1992 -1997)

Undergraduate Research Assistant, The Colorado College, (Summers 1990, 1991)

Governmental:

Wildlife Biologist, City of Boulder Open Space Department (October 1997-August 1998)

Graduate Research Assistant, US Forest Service, Summer 1994

Non-Academic Employment including Armed Forces:

Sept. 1990-May 1991 Blue Cross/Blue Shield, Seattle, Washington. Medical review specialist. Responsible for coding and filing insurance paperwork related to medical claims.

TEACHING ACCOMPLISHMENTS:

Areas of Specialization: Ecology, ornithology, wildlife

Courses Taught:

South Dakota School of Mines and Technology (August 1998-May 2004)

Course	Title	Approximate enrollment	Credit hours
BIOL 121	Human Anatomy	150	4
BIOL 123	Human Physiology	150	4
BIOL 311	Principles of Ecology	25	3
BIOL 330	Environmental Science	25	3
BIOL 403	Global Environmental Change	25	3
BIOL 485	Technology and the Environment	25	3

University of Colorado (summer 1999)

Course	Title	Approximate enrollment	Credit hours
EPOB	Conservation Biology	15	3

University of Idaho (September 2004 – present)

Course	Title	Approximate enrollment	Credit hours
NR 200	Seminar: Introduction to Ecology and Conservation Biology	10	1
WLF 220	Principles of Ecology	75	3
FISH 316	Principles of Population Ecology	17	2
WLF 314	Wildlife Ecology I	55	3
WLF 316	Wildlife Ecology II	32	4
WLF 482	Ornithology	30	4
WLF 483/485/497	Ecology and Conservation Biology thesis and presentation	3	1
WLF 495	Wildlife seminar	20	1
WLF 501	Graduate seminar	10	1
WLF 501	Advanced avian ecology	8	1
FISH 526	Climate change effects on fish and wildlife populations	25	2
WLF 504	Current issues in avian conservation and management (online)		3

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WLF 500/EnvS 500	Thesis research credits	Variable	variable
WLF 600/EnvS 600	Thesis research credits	Variable	variable

Students Advised:

Undergraduate Students: (advised to completion of degree, number per year)

2004: na
2005: ~10
2006: ~10
2007: ~10
2008: ~10
2009: ~10
2010: ~10
2011: ~30
2012: ~30
2013: ~20
2014: ~20
2015: ~25
2016: ~25
2017: ~15
2018: ~15
2019: ~20
2020: ~5
2021: ~5

Current Graduate Student Advisees

- Brent Barry, PhD (co-advised with Dr. Sophie Gilbert; Environmental Science (ENVS))
- Jess Stitt, PhD (Natural Resources; Wildlife)
- Rick Clawges, PhD (Natural Resources; Wildlife)
- Kassandra Townsend, PhD (Natural Resources; Wildlife)
- Anne Yen, MS (co-advised with Dr. Courtney Conway)
- Jennifer White (ENVS, non-thesis)
- Lane Page (ENVS; non-thesis)
- Jake DiBello (Master of Natural Resources (MNR); non-thesis)

Former Graduate Student Advisees

PhD Alejandra Martinez-Salinas (2016), University of Idaho/CATIE
Dissertation title: Contribution of agricultural land uses to bird conservation: a case study of ecosystem service provisioning.
Current position: Research scientist, CATIE, Costa Rica

Joe Holbrook (2015), University of Idaho
Dissertation title: Social-Ecological Research in the Sagebrush Ecosystem: Evaluating the Landscape Ecology of Burrowing Animals and Implementing a Social-Ecological Impact Assessment
Current position: Assistant Professor, University of Wyoming

Teresa Lorenz (2014), University of Idaho
Dissertation title: Primary cavity excavator nesting ecology, space use, and distribution: a multi-scale perspective.
Current position: postdoc with USFS

Tom Rodhouse (2011), University of Idaho
Dissertation title: Ecological monitoring in the age of spatial awareness: novel approaches to estimating status and trend in the presence of spatial complexity.
Current position: Research Ecologist, National Park Service
*Recipient of the Alumni Award for Excellence (2011), the Outstanding CNR graduate student (2012), and the Alumni Achievement Award for CNR (2016).

Dale Gentry (2006), South Dakota School of Mines and Technology
Dissertation title: Dynamics of cavity using birds in old-burn and unburned forests in the Black Hills, South Dakota.
Current position: Associate Professor, University of Northwestern (St. Paul)

Cynthia Stubblefield Holte, (2006), South Dakota School of Mines and Technology
Dissertation title: Landscape ecology and distribution of elk in the Black Hills, South Dakota.
Relevant Positions: Wildlife biologist, Department of Marine and Wildlife Resources, Samoa; U.S. Fish and Wildlife Service; has currently left the field of wildlife biology/natural resource management

M.S.
(thesis) Deo Lachman (2020), University of Idaho, Natural Resources
Thesis title: Behavioral and environmental factors affecting nest site selection and nest survival in a colonial nesting waterbird.
Current position: Wildlife biologist, Bear Lake National Wildlife Refuge

Laura Ehlen (2019), University of Idaho, Natural Resources
Thesis title: An assessment of grassland bird communities, shrub use, and reproduction in the context of shrub encroachment
Current position: Wetland restoration project manager, South Carolina Department of Natural Resources

Jamie Jarolimek (2017), University of Idaho; Fall 2017 graduation date
Thesis title: Understory composition and thermal environments of Quaking aspen (*Populus tremuloides*): implications for wildlife in a changing climate.
Current position: Bureau of Land Management, Wildlife Biologist

Heidi Becker (2016), University of Idaho
Thesis title: Habitat selection of meadow voles and diet of vagrant shrews on a wet prairie.
Current position: National Park Service, Natural Resource manager

Charles Swift (2016), University of Idaho
Thesis title: Influence of canopy composition and vegetation structure on avian diversity and red-naped sapsucker (*Sphyrapicus nuchalis*) occupancy across an aspen-conifer forest gradient.
Current position: Database manager, University of Idaho

Amber Lankford (2013), University of Idaho
Thesis title: Climate change vulnerability of terrestrial wildlife: an Idaho case study
Current position: Science educator

Patrick Adam (2012), University of Idaho
Thesis title: Using satellite and airborne LiDAR to predict woodpecker presence at the

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landscape scale

Current position: owner of Protium Innovations, LLC (a drone-related company)

Jody Vogeler (2011), University of Idaho

Thesis title: The utilization of remotely-sensed ecological variables in the examination of avian species richness and species specific habitat relationships in two mixed-conifer forests in north-central Idaho.

Current position: Research scientist, Colorado State University

Giancarlo Sadoti (2009), University of Idaho

Thesis title: Breeding ecology of two primary cavity-excavators in aspen forests of the northeastern Great Basin: is habitat selection adaptive among red-naped sapsuckers and northern flickers?

Current position: Postdoc at University of Nevada Reno

Mark Pollock (2009), University of Idaho

Thesis title: Effects of sheep grazing on Brewer's sparrow and vesper sparrow habitat selection and breeding success in mountain big sagebrush steppe

Current position: Wildlife Biologist, Power Engineers

Jessica Murray (Pollock) (2009), University of Idaho

Thesis title: Evaluating microclimate and occupancy of natural and artificial cavities for breeding birds

Current position: Idaho Bird Observatory

Rick Clawges (2006), South Dakota School of Mines and Technology.

Thesis title: Use of LiDAR in ecological investigations: case studies for avian habitat assessment and estimation of biophysical properties of western larch (*Larix occidentalis*)

Current position: Water resource specialist, USGS, Pueblo, Colorado

M.S. Graduate advisees (non-thesis)

Adam Dutra (ENVS)	2021
Aaron Ellig (ENVS)	2021
Robert Petrillo, MNR	2021
Brian Owen, MS, (ENVS)	2021
Lindsey White, MS, (ENVS)	2021
Katelynn Lamb, (ENVS)	2021
John Stefka (ENVS)	2020
Troy Taylor (ENVS)	2018
Carmen DeLeon (McCall Outdoor Science School; MNR)	2013
Bryce Pewonka (ENVS)	2012
Marcie Carter (Fish and Wildlife Sciences)	2010

Current and former graduate student committee service (student name, degree, graduation date, advisor)

Susan Frawley (M.S. in progress; M.C. Quist, advisor)

Ian Riley, MS (MS, 2019, C. Conway)

Eric Walsh (PhD, 2018, T. Hudiburg)

Landon Charlo, MS (WSU, MS, 2018, D. Thornton, M. Swanson)

Conor McClure (MS, 2017, M.C. Quist)

John Severson, PhD, 2016 (K. Reese)

Zach Swearingen, MS, 2015, (C. Conway)

Kyla Berendzin, MS, 2014, (P. Morgan)

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Harry Jageman, PhD, 2014 (O. Garton)
Lief Wiechman, MS, 2013 (K. Reese)
Melanie Johnson, PhD, 2012 (L. Vierling)
Bryan Stevens, MS, 2011 (K. Reese)
Sebastian Martinuzzi, PhD, 2010 (L. Vierling)
Ethan Ellsworth, PhD, 2009 (J. Rachlow)
Trevor Fox, MS, 2008 (J. Ratti)
Kara Gebhardt, MS, 2007 (L. Waits)

Materials Developed:

1. 2005: Species account for Idaho Fish and Game:
 - a. Lewis's Woodpecker (*Melanerpes lewis*)
 - b. American Three-toed Woodpecker (*Picoides dorsalis*)

Courses Developed:

1. FISH 526 (Climate change effects on fish and wildlife populations; 2 credits)
This course is an online course designed to meet requirements for the Environmental Science and Masters of Natural Resources graduate programs. It is a team-taught course.
2. WLF 220 (Principles of Ecology; 3 credits).
This course serves as a core course for the College of Natural Resources and is an introduction to ecological principles and concepts.
3. FISH 316 (Principles of population ecology; 2 credits).
This course serves as an introduction to population ecology concepts for fisheries majors and ecology/conservation biology majors. It is often the first time that the students have to incorporate equations and math concepts to better understand how populations change over time.
4. WLF 316 (Wildlife Ecology II; 4 credits).
This course is taken by junior level wildlife majors, and encompasses the introduction of population ecology concepts and incorporates habitat-specific case studies to illustrate how changes in landscapes can affect demographic processes.
5. WLF 482 (Ornithology; 4 credits)
This course is taken by a wide variety of students across campus (wildlife majors, biology majors, environmental science majors, etc.) and addresses avian biology, ecology and conservation.
6. WLF 495: Wildlife seminar
This course is a required course for all WLF majors, and the purpose of the course is to refine written and oral presentation skills as well as to discuss current wildlife issues.
7. WLF 501: (Advanced Avian Ecology; 1 credit)
This is a graduate level seminar that explores local and global issues related to avian conservation.
8. WLF 501: (Forest Bird Conservation; 1 credit)
This is a graduate level seminar that explores forest bird management and conservation in the context of fire, insect outbreaks, and forest management practices.

Non-credit Classes, Workshops, Seminars, Invited Lectures, etc.:

Please note that student names are in bolded italics, and * indicate that they were my advisees.

1. **Vierling, K.T.**, S. Gilbert, J. Holbrook, J. Vogeler, and L.A. Vierling. 2021. Unveiling multiple dimensions of ecology using lidar: from the leaf to the stars. Invited plenary talk, Idaho Chapter of the Wildlife Society annual meeting (virtual), February 24-25, 2021.
2. Invited to be the plenary speaker at an international workshop entitled "3D vegetation mapping using advanced remote sensing- implications for seamless modeling of

terrestrial ecosystems” in September 2014 in Grafenau, Germany, hosted by the Nationalpark Bayerischer Wald. Unable to accept due to a previous obligation. A colleague (Jan Eitel) went in my stead and presented the talk:

Eitel, J.U.H., Vierling, L.A., Magney, T.S., Greaves, H.E., **Vierling, K.T.**, Hudak, A.T., Dittmar, G. 2014. Beyond 3-D. International Workshop 3D Vegetation Mapping using Advanced Remote Sensing - Implications for Seamless Modeling of Terrestrial Ecosystems September 24th-26th, St. Oswald, Germany (*invited*)

3. Vierling, L.A., Finch, S., Vogeler, J., Silva, C., **Vierling, K.T.**, Hudak, A.T., and Eitel, J. 2014. Using LiDAR to quantify multiple ecosystem attributes at the individual landowner scale. Quantification of Ecosystem Services: Concepts and Measurement Workshop. CATIE/CGIAR, Turrialba, Costa Rica, 12 March 2014 (*invited*).
4. Hudak, A.T., S. Finch, **K. Vierling**, L. Vierling, J. Vogeler, and C. Swift. Ecosystem services with backyard benefits: avian diversity, forest diversity, and carbon sequestration on Moscow Mountain. Sponsored by White Pine Chapter, Idaho Native Plant Society, Moscow, Idaho, 23 Jan 2014. (oral presentation).
5. **Vierling, K.T.** Living in a 3-D world: the role of LiDAR in characterizing habitat and understanding patterns of animal distributions. Gonzaga University, October 17, 2014. (*Invited*).
6. **Vierling, K.T.** 2013. Guest speaker/panelist for new faculty orientation. August 16, 2013.
7. Vierling, L.A., **S. Martinuzzi**, A.T. Hudak, J.U.H. Eitel, **J. Vogeler***, **T. Magney**, and **K.T. Vierling**. 2013. Earth in 3-D: shedding new light on environmental studies using lasers. Whitman College, Walla Walla, WA. (*invited*).
8. Vierling, L.A., **S. Martinuzzi**, A.T. Hudak, J.U.H. Eitel, **J. Vogeler***, **H. Greaves**, **T. Magney**, N. Boelman, K. Griffin, and **K.T. Vierling**. 2013. Lasers, Ecology, and YOU. University of Alaska Fairbanks/Toolik Field Station LTER, North Slope, AK. (*invited*).
9. **Vierling, K.T.** 2012. Grazing effects on songbird nest-site selection and nest survival in sagebrush steppe. University of Idaho Sagebrush Seminar series. February 15, 2012.
10. **Vierling, K.T.** 2012. A nest web approach to evaluating fire effects on cavity-using communities. University of Idaho, FOR 211 guest speaker. March 28, 2012.
11. **Vierling, K.T.** 2012. Fire severity effects on bird populations in coniferous forests. Washington State University. (*invited*).
12. Vierling, L.A., **S. Martinuzzi**, A.T. Hudak, **S.R. Garrity**, J.U.H. Eitel, E.K. Strand, M.J. Falkowski, **J. Vogeler***, and **K.T. Vierling**. 2012. The role of remote sensing data in understanding ecological legacies. University of Wisconsin (*invited*).
13. **Vierling, K.T.** 2011. “Preparing a lesson plan, tips for lecturing, and holding office hours”. University of Idaho, university-wide TA training. Invited speaker. Fall 2011.
14. **Vierling, K.T.** and L.A. Vierling. 2010. Mapping vegetation structure with lasers: the role of lidar in wildlife conservation and management. The Colorado College. (*invited*).
15. **Vierling, K.T.** 2010. Avian responses to changing landscapes: population and community perspectives from western North America. Center for Tropical Agriculture and Ecology (CATIE), Costa Rica. (*invited*).
16. **Vierling, K.T.** 2010. Influences of urbanizing landscapes on avian populations. Center for Tropical Agriculture and Ecology (CATIE), Costa Rica. (*invited*).
17. **Vierling, K.T.** 2009. WLF 314/315 guest lecturer, September 2009
18. **Vierling, K.T.** 2009. CORE 101: September 22, 2009
19. **Vierling, K.T.** 2008. “Teaching in field settings”, University of Idaho, EDTE 541, April, 2008
20. **Vierling, K.T.** 2007. Guest lecturer, NR 101, Fall 2007.
21. **Vierling, K.T.** 2007. Panel member, “Excellence in Advising”, University of Idaho, September 7, 2007.

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22. **Vierling, K.T.** 2007. Faculty panel member, Teaching Orientation Workshop for new faculty orientation, August, 2006
23. **Vierling, K.T.** 2007. "Teaching in field settings", University of Idaho, EDTE 541, April 2007
24. **Vierling, K.T.** 2007. Nest webs and remote sensing: an interdisciplinary approach to understanding fire effects on cavity nesters. The Colorado College, Colorado Springs. (*invited*).
25. **Vierling, K.T.** 2006. "Teaching in field settings", University of Idaho, EDTE 541, March 28, 2006
26. **Vierling, K.T.** 2006. Guest lecturer, NR 101, Fall, 2006
27. **Vierling, K.T.** 2005. Birds, burns, and balancing habitat needs in pine savannas", University of Idaho, RNGE 501, October 24, 2005
28. **Vierling, K.T.** 2005. Burning questions: cavity nesters and wildfire in western North America. Bowdoin College, Maine. (*invited*).
29. **Vierling, K.T.** 2003. Forest fires, woodpeckers, and habitat selection: post-fire succession and spatial scale influences. Augustana College, Sioux Falls, SD. (*invited*).
30. **Vierling, K.T.** 2001. The effect of non-equilibrium fire dynamics on cavity nesting communities and population dynamics. The Colorado College, Colorado Springs, CO. (*invited*).
31. **Vierling, K.T.** 2000. Source and sink habitats of a generalist species in a suburban/rural landscape: a case study of Red-winged blackbirds. Black Hills State University, Spearfish SD. (*invited*).
32. **Vierling, K.T.** 1999. Source and sink habitats of a generalist species in a suburban/rural landscape: a case study of Red-winged blackbirds. University of South Dakota, Vermillion, SD. (*invited*).
33. **Vierling, K.T.** 1995. Population trends and ecology of the Lewis' woodpecker (*Melanerpes lewis*) in southeastern Colorado. The Colorado College, Colorado Springs, CO. (*invited*).
34. **Vierling, K.T.** 1991. The breeding biology of Scrub jays (*Aphelocoma californicus*) in Colorado. Invited lecture. The Colorado College, Colorado Springs, CO. (*invited*).

Honors and Awards:

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| 2020 | University of Idaho Alumni Association Award for Excellence, teaching and advising award (for undergraduate student Madi Thurston). |
| 2020 | University of Idaho Alumni Association Award for Excellence, teaching and advising award (for undergraduate student Cassandra Townsend). |
| 2020 | College of Natural Resources Outstanding Teacher of the Year award |
| 2017 | University of Idaho Alumni Association Award for Excellence, teaching and advising award (for graduate student Jamie Jarolimek). |
| 2017 | College of Natural Resources External Advisory Board's Faculty Excellence Award. This award honors teaching excellence, and was the first such award the CNR External Advisory Board has given to a faculty member in the college. |
| 2017 | National Academic Advising Association Region 8 Faculty Advisor Certificate of Merit award. Region 8 consists of advisors across Alaska, Alberta, British Columbia, Idaho, Montana, Oregon, Washington, and the Yukon Territory, and the award honors faculty advisors making significant contributions to academic advising, with only two awardees total in the faculty advisor category. |

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- 2016 University of Idaho Advising Excellence Award (top undergraduate advising award at the University level)
- 2015 University of Idaho Alumni Association Award for Excellence, teaching and advising award for undergraduate Emily Brown.
- 2015 University of Idaho, Teaching Excellence Award (top teaching award at the University level)
- 2014 University of Idaho Alumni Association Award for Excellence, teaching and advising award. Two awards were received in 2014; both based on undergraduate teaching/advising for Jake Fincher and Matt Modlin.
- 2014 College of Natural Resources Outstanding Teacher of the Year award
- 2011 University of Idaho Alumni Association Award for Excellence, teaching and advising award. Two awards were received in 2011; one based on undergraduate teaching/advising (Katie Coyle), and one based on graduate student mentorship and advising (Tom Rodhouse).
- 2010 University of Idaho Alumni Association Award for Excellence; teaching and advising award (for Amber Lankford)
- 2010 College of Natural Resources Outstanding Teacher of the Year award
- 2008 University of Idaho Alumni Association Award for Excellence; teaching and advising award (for Tati Gettelman)
- 2007 College of Natural Resources Outstanding Teacher of the Year award
- 2002 South Dakota School of Mines and Technology PIF College award for excellence in teaching and research
- 1999 Nominee for Ennenga teaching award for outstanding teaching, South Dakota School of Mines and Technology
- 1995-1996 Teaching Assistant of the Year, Environmental, Population, and Organismic Biology Department, University of Colorado

SCHOLARSHIP ACCOMPLISHMENTS: I started my first tenure-track position at the South Dakota School of Mines and Technology in 1999, where my typical appointment was approximately 75% teaching, 15% research, and 10% service. During this time, I taught 9 credits/semester and coordinated 4-5 lab sections/semester. I started at the University of Idaho in Fall 2004, and between 2004-2007, I was on a 75% tenure track position where my research appointment was approximately 30% of my position description. I have been a full-time tenure track faculty member at the University of Idaho since Fall 2007, and was on sabbatical for the 2010-2011 academic year.

Publications, Exhibitions, Performances, Recitals:

Peer Reviewed/Evaluated: (i.e. books, book chapters, journals, etc.). Please note that student names are in bolded italics, and * indicate that they were my advisees. I am typically listed as the final author on papers as the leader of my lab, but am occasionally listed as 2nd author. My role as 2nd author/leader of the lab are equivalent in such situations.

1. **Vierling, K.T.**, J. Aycrigg, T. Cohn, J.D. Holbrook, and L. Svancara. 2021. Improving communication between landscape ecologists and managers: challenges and opportunities. In *Wildlife and Landscapes: Principles and Applications for Landscape Management*. W.F. Porter, C.J. Parent, and D.M. Williams (Eds). John Hopkins University Press. Invited.
2. **Vierling, K.T.** and S.M.P. Sullivan. 2018. Ecosystem and Landscape Management and Planning in Ornithology: Foundation, Critique, and Application. M. Morrison, A Rodewald, G. Voelker, J.Prather, and M. Colon. (Eds). John Hopkins University Press.
3. Mueller, J. and **K.T. Vierling**. 2014. Assessing biodiversity by airborne laser scanning. In "Forestry applications of airborne laser scanning – Concepts and Case Studies", M. Maltamo, E. Næsset, and J. Vauhkonen (Eds.). pp. 357-374. Springer, Dordrecht, The Netherlands
4. **Vierling, K.T.**, V.A. Saab and B.W. Tobalske. 2013. Lewis's Woodpecker (*Melanerpes lewis*), The Birds of North America Online (A. Poole, Ed.). Cornell Lab of Ornithology, Ithaca, NY. <http://bna.birds.cornell.edu/bna/species/284>
5. Aycrigg, J., G. Beauvais, T. Gotthardt, K. Boykin, S. Williams, S. Lennartz, **K.T. Vierling, S. Martinuzzi**, and L.A. Vierling. 2010. Mapping Species Ranges and Distribution Models across the United States. Incorporating interspecific relationships to map secondary cavity user distributions. U.S. Geological Survey Gap Analysis Program Bulletin 18: 12-20.
6. **Martinuzzi, S.**, L.A. Vierling, W.A. Gould, and **K.T. Vierling**. 2009. Improving the Characterization and Mapping of Wildlife Habitats with Lidar Data: Measurement Priorities for the Inland Northwest, USA. In Maxwell, J., Gergely, K., Aycrigg, J., and Davidson, A., eds., Gap Analysis--A geographic approach to planning for biological diversity: U.S. Geological Survey Gap Analysis Program Bulletin No. 16, 104 pages.
7. Vierling, L., **E. Rowell, X. Chen, D. Dykstra**, and **K. Vierling**. 2002. Relationships among airborne scanning LiDAR, high resolution multispectral imagery, and ground-based inventory data in a ponderosa pine forest. IEEE International Geoscience and Remote Sensing Symposium (IGARSS), Toronto, Canada, *Proceedings of IGARSS '02*.

Refereed/Adjudicated:

Please note that student names are in bolded italics, and * indicate that they were my advisees. Two asterisks denote an undergraduate student. I am typically listed as the final author on papers as the leader of my research lab, but am occasionally listed as 2nd author. My role as 2nd author/leader of the lab are equivalent in such situations.

1. **Stitt, J***, A.T. Hudak, C. Silva, L.A. Vierling, and **K.T. Vierling**. 2022. Evaluating the use of lidar to discern snag characteristics important for wildlife. Remote Sensing. *In press*.
2. **Stitt, J***, A.T. Hudak, C. Silva, L.A. Vierling, and **K.T. Vierling**. 2021. Characterizing individual tree-level snags using airborne lidar-derived forest canopy gaps within closed-canopy canopy forests. *Methods in Ecology and Evolution* <https://doi.org/10.1111/2041-210X.13752>

3. Asbeck, T., M. Basile, **J. Stitt***, J. Bauhus, I. Storch, and **K.T. Vierling**. 2020. Tree-related microhabitats are similar in mountain forests of Europe and North America and their occurrence may be explained by tree functional groups. *Trees* 34:1453-1466.
4. **Lachman, D.***, C. Conway, **K.T. Vierling** and Ty Matthews. 2020. Drones provide an improved method to find nests and estimate nest survival for colonial waterbirds: a demonstration with western grebes. *Wetlands Ecology and Management* 28:837-845.
5. Paolini, K.E., **M. Modlin****, A.A. Suazo, D.S. Pilliod, R.S. Arkle, **K.T. Vierling**, and J.D. Holbrook. 2020. Harvester ant seed removal in an invaded sagebrush ecosystem: implications for restoration. *Ecology and Evolution* <https://doi.org/10.1002/ece3.6963>
6. **Stitt, J.M.***, L.K. Svancara, L.A. Vierling, and **K.T. Vierling**. 2019. Smartphone lidar can measure keystone habitat structures for wildlife studies. *Wildlife Society Bulletin* 43:159-166.
7. **Jarolimek, J.*** and **K.T. Vierling**. 2019. Thermal environments within aspen (*Populus tremuloides*) tree cavities during summer: implications for breeding and roosting cavity users. *Journal of Thermal Biology* <https://doi.org/10.1016/j.jtherbio.2019.02.011>
8. **Walsh, E.S., K. Vierling**, E. Strand, K. Bartowitz, and T. Hudiburg. 2019. Climate change, woodpeckers, and forests: current trends and future modeling needs. *Ecology and Evolution*. <https://doi.org/10.1002/ece3.4876>
9. Karp, D.S., R. Chaplin-Kramer, and 156 co-authors including K.T. Vierling and **A. Martinez-Salinas***. 2018. Crop pests and predators exhibit inconsistent responses to surrounding landscape composition. *Proceedings of the National Academy of Sciences*. DOI: 10/1073/pnas.1800042115.
10. Bae, S. J. Muller, L. Dowon, **K.T. Vierling**, J.C. Vogeler, L.A. Vierling, A.T. Hudak, H. Latifi, and S. Thorn. 2018. Non-linear and contrasting effects of canopy density determine taxonomic, functional, and phylogenetic diversity of breeding birds in temperate forests. *Remote Sensing of Environment* 215:145-156.
11. **Vierling, K.T.**, T.J. Lorenz, P. Cunningham, and **K. Potterf****. 2018. Thermal conditions within tree cavities in ponderosa pine (*Pinus ponderosa*) forests: potential implications for cavity users. *International Journal of Biometeorology* 62:553-564.
12. **Swift, C.***, **K.T. Vierling**, A. Hudak, and L.A Vierling. 2017. Relationships among Vegetation Structure, Canopy Composition, and Avian Richness Patterns across an Aspen-Conifer Forest Gradient. *Canadian Journal of Remote Sensing*. <http://dx.doi.org/10.1080/07038992.2017.1317205>
13. **Martinez-Salinas, A.***, Fabrice DeClerck, **K.T. Vierling**, L.A. Vierling, L. Legal, S. Vilchez-Mendoza, and J. Avelino. 2016. Bird functional diversity supports pest control services in a Costa Rican coffee farm. *Agricultural, Ecosystems and Environment* 235:277-288.
14. **Bentley Brymer, A., J.D. Holbrook***, **R. Niemeyer**, **A. Suazo**, J.D. Wulfhorst, **K.T. Vierling**, B. Newingham, T. Link, and J. Rachlow. 2016. A social-ecological impact assessment for public land management: application of a conceptual and methodological framework. *Ecology and Society* 21(3):9. <http://dx.doi.org/10.5751/ES-08569-210309>.

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1. **Lachman, D.***, C.J. Conway, K.T. Vierling, D. Evans-Mack, and T. Matthews. Microsite variation in water depth affects nest placement within breeding colonies of Western grebes (*Aechmophorus occidentalis*). *In review: Waterbirds*

Presentations and Other Creative Activities: (i.e. slide sets, web pages, video productions, etc., provide date and location)

NA

Professional Meeting Papers, Workshops, Showings, Recitals:

1. **Keo, A.****, M. Heller*, C. Conway, **K. Vierling**, **A. Yen***, and M.C. Quist. 2021. Determining if there is a correlation of gill-net depths and gill-net capture rates. Ecological Society of America annual meeting (virtual), August, 2021.
2. **Linder, K.****, M. Heller*, MC Quist, **K. Vierling**, C. Courtney, and **A. Yen***. 2021. Assessing fish species richness of St. Charles Creek. Ecological Society of America annual meeting (virtual), August, 2021.
3. **Kirk, R.****, A. Allison, C. Conway, and **K. Vierling**. 2021. Pre-hibernation body mass as a function of survival in adult male northern Idaho ground squirrels (*Uroditellus brunneus*). Ecological Society of America annual meeting (virtual), August, 2021.
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5. **Stitt, J.M.***, A.T. Hudak, C.A. Silva, L.A. Vierling, and **K.T. Vierling**. 2021. Gaps & ghosts: How dead space & dead trees complement each other for a fuller picture of forest structure. IGNITE talk given at: *Idaho Chapter of the Wildlife Society Annual Meeting 2021*. February 22-25, 2021; virtual.
6. **Yen, A***, C. Conway, and **K. Vierling**. 2021. Nesting success and recruitment of Western Grebes in Idaho. Idaho Coop Unit Cooperators annual meeting, April 30, 2021. University of Idaho, Moscow, Idaho.
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9. **Sanchez, Z****, D. Oleyar, and **K.T. Vierling**. 2020. Evaluating the influence of land cover classification on nest site selection, productivity, and reproductive success of American kestrels (*Falco sparverius*). Idaho Chapter of the Wildlife Society annual meeting, March 9-12, 2020. Moscow, Idaho.
10. **Stitt, J.***, L.A. Vierling, A.T. Hudak, and **K.T. Vierling**. 2020. Seeing the forest without the trees: how lidar-derived canopy gaps can inform snag modeling and provide value for wildlife. Idaho Chapter of the Wildlife Society annual meeting, March 9-12, 2020. Moscow, Idaho.
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12. **Cardenas-Ritzert, O.****, **A. Cano-Perez****, A. Allison, C. Conway, and K. Vierling. 2020. Determining relationships between northern Idaho ground squirrel (*Uroditellus brunneus*) hibernaculum and logs. Ecological Society of America annual meeting. Virtual.
13. **Zuniga, Z.****, **E. Cook****, J.T. Styhl, K. Vierling, and C. Conway. 2020. Ant mound density in Greater sage-grouse habitat. Ecological Society of America annual meeting. Virtual.

14. **Cano-Perez, A.** O. Cardenas-Ritzert****, K. Vierling, C. Conway, and A. Allison. 2020. What hibernacula characteristics do northern Idaho ground squirrels select for? Ecological Society of America annual meeting. Virtual.
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22. **Vierling, K.T.**, A.T. Hudak, **J. Jarolimek***, M.A. Jusino, T. Lorenz, **C. Silva, J. Stitt***, **C. Swift***, and L.A. Vierling. Perspectives on Piciformes: influences on biodiversity from holes to whole landscapes. European Congress for Conservation Biology, Jyvaskala, Finland, June 12-15, 2018.
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40. Braker, Elizabeth, C.M. Moffitt, **K. Vierling**, C. Conway, and M. Quist. Investment in mentoring to promote diversity in conservation professions. American Society of Fisheries Idaho Chapter annual meeting, March 3-6, 2015.
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42. **Holbrook, J.***, K. Vierling, L. Vierling, **P. Adam***, and A. Hudak. 2014. Ecosystem engineers in a coniferous forest: using LiDAR to understand the role of vegetation structure and disturbance across spatial scales. Joint meeting with the Northwest Section and Idaho Chapter of the Wildlife Society, 4 March 2014, Boise, Idaho.

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44. **Martinez-Salinas, A.***, J. Avelino, K.T. Vierling, L.A. Vierling, and F. DeClerck. 2014. Coffee berry borer *Hypothenemus hampei* (Coleoptera: Curculionidae: Scolytinae) removal in coffee plantations: a pest control service provided by birds. Conference of the Ecosystem Services Partnership, San Jose, Costa Rica.
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47. Carlisle, J., R. Cavallaro, D. Dobkin, **K.T. Vierling**, V. Saab, and **G. Sadoti**. 2013. Aspen and wildlife diversity. Eastern Idaho Aspen Working Group meeting, July 16-17, 2013. Pocatello, ID.
48. **Lorenz, T.J.***, J.M. Kozma, J. Millard, and **K.T. Vierling**. 2012. Home ranges, foraging behavior, and survivorship of white-headed woodpeckers: a synthesis of past and current research from Oregon and Washington. Presented for U.S. Department of Agriculture, Region 6, Wildlife Biologist annual meeting. Portland, OR.
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51. **Swift, C.***, A. Hudak, **K. Vierling**, L. Vierling, and **J. Vogeler***. 2012. Modeling brown creeper occupancy using LiDAR derived forest canopy metrics. 42nd Annual Meeting of the Idaho Chapter of The Wildlife Society, March 5-8, 2012, Boise, ID.
52. **Rodhouse, T.***, P. Ormsbee, K. Irvine, L. Vierling, J. Szewczak, and **K. Vierling**. 2012. Annual turnover in bat occupancy patterns: predictions from life history theory with implications for conservation and monitoring. Ecological Society of America Annual meeting, August 7, 2012, Portland, OR.
53. Vierling, L.A., **K.T. Vierling**, **S. Martinuzzi**, **J. Vogeler***, and A.T. Hudak. 2012. MacArthur's Ladder: Advancing the role of LiDAR in assessing and conserving biodiversity. Silvilaser annual conference, Vancouver, WA. September 17, 2012. ***Plenary talk.**
54. Vierling, L.A., **S. Finch**, **K.T. Vierling**, E.K. Strand, A.T. Hudak, **J. Vogeler***, **S. Martinuzzi**, J. Eitel and J. J. Falkowski. 2012. Lasers on the Landscape: Quantifying 3-D ecosystem structure to map continuous surfaces of carbon, avian species richness, and tree species distributions. December 5, 2012. American Geophysical Union annual meeting, San Francisco, CA.
55. **P. Adam***, L. Vierling, **K. Vierling**, E. Strand, and A. Hudak. 2011. Characterization of woodpecker habitat using airborne and satellite lidar-derived forest structure metrics. Idaho Chapter of The Wildlife Society. 41st Annual meeting, March 28-31, 2011, Idaho Falls, ID.
56. **K. Vierling**, L. Vierling, B. Linkhart, **P. Adam***, J. Aycrigg**, **J. Pollock***, **G. Sadoti***, and **J. Vogeler***. 2011. Placing the keystones: elucidating interactions among woodpeckers and cavity-dependent species for improved vertebrate

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conservation and management. Idaho Chapter of The Wildlife Society 41st Annual meeting, March 28-31, 2011, Idaho Falls, ID. **Dr. Aycrigger presented this talk in my absence.

57. **P. Adam***, L.A. Vierling, **K.T. Vierling**, E. Strand, and A. Hudak. 2011. Assessing Pileated woodpecker habitat from space: Predicting presence from lidar derived forest structure. ESA 96th Annual meeting, August 7-12, 2011, Austin, TX
58. Vierling, L.A., **S. Martinuzzi**, A.T. Hudak, **S.R. Garrity**, J.U.H. Eitel, E.K. Strand, M.J. Falkowski, **J. Vogeler***, and **K.T. Vierling**. 2011. The role of remote sensing data in understanding agro-ecological legacies. *CATIE/PCP/UI Conference: From the Leaf to the Landscape: Field and Remote Sensing Approaches for Understanding Vegetation Structure and Dynamics*. CATIE, May 12-13, 2011, Turrialba, Costa Rica.
59. **Vogeler, J. C.***, **K. T. Vierling**, L. A. Vierling, and A. T. Hudak. 2010. "The use of LiDAR in predicting forest bird richness in a western mixed conifer forest." Wildlife Society 17th Annual National Conference, October 2-6, 2010. Snowbird, UT.
60. Irvine, K. M., **T. J. Rodhouse***, and **K. T. Vierling**. 2010. Incorporating Spatial Correlation Within a Bayesian Hierarchical Trend Model for Camas Lily Abundance. Annual Meeting of the Western North American Region of the International Biometric Society (WNAR), Seattle, WA, Invited Oral Presentation. June, 2010.
61. Vierling, L.A., **S. Martinuzzi**, A.T. Hudak, S.R. Garrity, J.U.H. Eitel, E.K. Strand, M.J. Falkowski, and **K.T. Vierling**. 2010. Landsat Time Series-based Vegetation Change: Context for Understanding Ecological Legacies. Landsat Science Team Semi-Annual Meeting, 16 June 2010, Boise, ID.
62. Sullivan, M.S.P. and **K.T. Vierling**. 2010. Deciphering spatial linkages in mountain watersheds with the American dipper (*Cinclus mexicanus*). Ecological Society of America annual meeting, August 1-6, 2010. Pittsburgh, Pennsylvania.
63. **Vierling, K.T.**, L.A. Vierling, and A. Hudak. 2010. Lidar applications for wildlife biodiversity and habitat modeling. Idaho Chapter of the Wildlife Society annual meeting, Boise, Idaho. ***Received Best Professional Paper Presentation Award**
64. **Adam, P.***, L.A. Vierling, **K.T. Vierling**, A.T. Hudak, and E.K. Strand. 2010. Using satellite and airborne LiDAR to predict woodpecker presence at the landscape scale. American Geophysical Union annual meeting, December 13-17, 2010, San Francisco, CA. **Highlighted by BBC News.**
<http://www.bbc.com/news/science-environment-11867165>
65. **Martinuzzi, S.**, L.A. Vierling, W.A. Gould, J. Evans, M. Falkowski, A. Hudak, and **K.T. Vierling**. 2009. Using discrete return lidar data to map the distribution of snags, understory shrubs, and avian habitat suitability in a mixed conifer forest. Ecological Society of America annual meeting, August 2-7, 2009. Albuquerque, NM.
66. Co-organized and moderator of a special session at the Ecological Society of America annual meeting (2009): "Lidar measures of ecosystem structure: implications for biodiversity and wildlife habitat modeling". August 2-7, 2009. Albuquerque, NM.
67. **Pollock, M.G.*** and **K.T. Vierling**. 2009. Effects of sheep grazing on Brewer's sparrow nest site selection and reproductive success in mountain big sagebrush habitat. Idaho Chapter of the Wildlife Society annual meeting, March 10-12, 2009, Moscow, Idaho.
68. **Pollock, J.*** and **K.T. Vierling**. 2009. A comparison of internal temperatures between nest boxes and artificially created cavities for secondary cavity nesting birds in northern Idaho. Idaho Chapter of the Wildlife Society annual meeting, March 10-12, 2009, Moscow, Idaho.

69. **Sadoti, G.*** and **K.T. Vierling**. 2009. Nesting ecology of red-naped sapsuckers: choices, consequences, and the role of scale. Idaho Chapter of the Wildlife Society annual meeting, March 10-12, 2009, Moscow, Idaho.
70. Baxter, C.V., R.L. Malison, **B. Jackson**, P. Della Croce, M. Sullivan, **K. Vierling**, J. Braatne, and G. W. Minshall. 2008. "The fire pulse": mid-term effects of wildfire on stream-riparian linkages in wilderness watersheds of central Idaho. International Association of Wildland Fire, September 22-27, 2008. Jackson Hole, WY.
71. **Vierling, K.T.**, E. Strand, A. Smith, and L.B. Lentile. 2008. An evaluation of fire severity classification techniques and implications for habitat studies of birds in burned environments. American Ornithologists' Union/Cooper Ornithological Union/Society of Canadian Ornithologists joint meeting. August 4-9, 2008. Portland, Oregon.
72. Leu, M., A.M. Haines, L.K. Svancara, G. Wilson, J.M. Scott, and **K. Vierling**. 2008. Biodiversity hotspots and avian species. American Ornithologists' Union/Cooper Ornithological Union/Society of Canadian Ornithologists joint meeting. August 4-9, 2008. Portland, Oregon
73. **Sadoti, G.S.*** and **K.T. Vierling**. 2008. Multi-scale influences on nest-site selection and productivity in aspen-associated cavity nesters. American Ornithologists' Union/Cooper Ornithological Union/Society of Canadian Ornithologists joint meeting. August 4-9, 2008. Portland, Oregon
74. **Rodhouse, T.***, W.E. Rainey, **K.T. Vierling**, and R.G. Wright. 2008. Temporal variability in bat foraging and commuting activity patterns. Idaho Chapter of the Wildlife Society Meeting, March 4-6, 2008. Boise, Idaho.
75. Haines, A.M., M. Leu, L.K. Svancara, G. Wilson, J. Michael Scott, and **K.T. Vierling**. 2008. Biodiversity Hotspots and Species Conservation. Idaho Chapter of the Wildlife Society Meeting, March 4-6, 2008. Boise, Idaho.
76. **Martinuzzi, S.**, L. Vierling, W. A. Gould, A. Hudak, R. F. Nelson, and **K. Vierling**. 2007. The use of lidar and high-resolution remote sensing data to assess vegetation mapping and wildlife habitat modeling. National Gap Analysis Conference, September 2007, Asheville, NC.
77. **Martinuzzi, S.**, L. Vierling, W. Gould, **K.T. Vierling**, A. Hudak, and R. Nelson. 2007. Potential of LIDAR data to improve species modeling and habitat characterization. Ecological Society of America Annual Conference, August 5-10, 2007, San Jose, California.
78. Sullivan, M.S.P. and **K.T. Vierling**. 2007. Evaluations of morning versus evening riparian bird surveys and implications for experimental design and ecological theory. Ecological Society of America Annual Conference, August 5-10, 2007, San Jose, California.
79. **Vierling, K.T.**, L.B. Lentile, and **N. Nielsen-Pincus**. 2007. Fire severity influences on cavity nester density and habitat selection in burned ponderosa pine forests. Ecological Society of America Annual Conference, August 5-10, 2007, San Jose, California.
80. Sullivan, M.S.P., R.D. Mann, and **K.T. Vierling**. 2007. Effects of landscape changes on American Dipper (*Cinclus mexicanus*) feeding and breeding ecology. Ecological Society of America Annual Conference, August 5-10, 2007, San Jose, California.
81. **Gentry, D.J.*** and K.T. Vierling. 2007. Reuse of cavities during the breeding and non-breeding season in old burns in the Black Hills, South Dakota. Cooper Ornithological Conference, Moscow, Idaho.
82. **Martinuzzi, S.**, K. T. Vierling, L. A. Vierling, **R. Clawges***, W. A. Gould. 2007. Lidar technology – applications and potential for wildlife habitat studies. Idaho Chapter of The Wildlife Society, Pocatello, Idaho.
83. **Gentry, D.J.*** and **K.T. Vierling**. 2006. Reuse of cavities during the breeding and non-breeding season in old burns in the Black Hills, South Dakota. North American Ornithological Conference, Veracruz, Mexico.

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84. **Vierling, K.T.** and L.B. Lentile. 2006. Nest-site selection and reproduction in a mixed pine and aspen woodland following fire. North American Ornithological Conference, Veracruz, Mexico.
85. **Clawges, R***, **K.T. Vierling**, and L. Vierling. 2006. Use of airborne LIDAR for avian habitat assessment in the Black Hills, South Dakota, USA, IEEE International Geoscience & Remote Sensing Symposium & 27th Canadian Symposium on Remote Sensing, Denver, CO.
86. **K.T. Vierling** and L.B. Lentile. 2006. Red-headed Woodpecker nest-site selection in a burned pine forest in the Black Hills, South Dakota. The Idaho Chapter of the Wildlife Society Meeting. Boise, ID.
87. **Clawges, R.***, **K.T. Vierling**, L.A. Vierling, and **E. Rowell**. 2005. Use of laser altimetry for avian habitat assessment in forested landscapes. The Wildlife Society annual meeting, Madison, WI.
88. **Gentry, D.J*** and K.T. Vierling. 2005. Non-breeding season cavity use patterns in high intensity burns in the Black Hills, South Dakota. The Wildlife Society annual meeting, Madison, WI
89. **K.T. Vierling**, V.A. Saab, and R.A. Russell. 2005. Examination of models predicting Black-backed Woodpecker habitat use in burned forests. The Wildlife Society meeting, Madison, WI
90. Rumble, M. and **K.T. Vierling**. 2004. Comparisons of Black-backed Woodpeckers in mountain pine beetle outbreaks and wildfires. The Wildlife Society annual meeting, Calgary, Alberta. Sept. 2004.
91. Vierling, L.A. and **K.T. Vierling** 2004. Creating undergraduate ambassadors for Earth System Science education. American Geophysical Union annual meeting. San Francisco, CA, Dec. 2004.
92. **Gentry, D.J*** and **K.T. Vierling**. 2004. Nest sites of primary cavity users in old salvage logged and unlogged stand-clearing wildfires in the Black Hills, South Dakota. Cooper Ornithological Annual Meeting, Lacrosse, WI.
93. **Vierling, K.T.** and D. Gentry. 2003. The influence of burn age on Lewis's Woodpecker (*Melanerpes lewis*) reproductive success and productivity. Ecological Society of America Annual Meeting, Savannah, GA
94. **Vierling, K.T.** 2003. The influence of pre-burn canopy coverage on post-fire use by Black-backed Woodpeckers in the Jasper Fire. South Dakota Academy of Sciences Annual Meeting, Rapid City, SD.
95. Vierling, L., **E. Rowell**, **X. Chen**, **D. Dykstra**, and **K.T. Vierling**. 2002. Relationships Among Airborne Scanning LiDAR, High Resolution Multispectral Imagery, and Ground-Based Inventory Data in a Ponderosa Pine Forest. IEEE International Geoscience and Remote Sensing Symposium, Toronto, Canada.
96. **Vierling, K.T.** and V. Saab. 2002. Influence of pre-fire structure on post-fire cavity nesting communities. Ecological Society of America, Annual Meeting, Tucson, AZ.
97. **Foreman, C.** and **K.T. Vierling**. 2002. Effects of urbanization on brown trout diet. Ecological Society of America Annual Meeting, Tucson, AZ.
98. **Vierling, K.T.** and **P.R. Nelson**. 2001. Brown trout diet along an urbanized gradient. South Dakota Academy of Sciences Annual Meeting, Vermillion, SD.
99. Saab, V. and **K. Vierling**. 2000. Burned forests: implications as source habitat for Lewis's Woodpecker. Society for Conservation Biology Annual Meeting, Spokane, WA.
100. Saab, V. and **K.T. Vierling**. 1999. Reproductive success of Lewis' Woodpecker in cottonwood riparian and burned pine forests. Ecological Society of America Annual Meeting, Annual Meeting, Spokane, WA.
101. **Vierling, K.T.** 1999. Effects of suburbanization and haying on the reproductive success of grassland birds breeding in hayfields. Society for Conservation Biology Annual Meeting, College Park, MD.
102. **Vierling, K.T.** 1998. Effects of suburbanization and haying on the reproductive

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- success of grassland birds breeding in hayfields. Ecological Society of America Annual Meeting, Baltimore, MD.
103. **Vierling, K.T.** 1997. Use of source and sink habitats by Red-winged blackbirds in Boulder, Colorado. Ecological Society of America Annual Meeting, Albuquerque, NM.
 104. **Vierling, K.T.** 1997. Predation and source/sink dynamics of Red-winged blackbirds in Boulder, CO. Wilson Ornithological Society Annual Meeting, Manhattan, KS.
 105. **Vierling, K.T.** 1996. Source and sink habitats of Red-winged blackbirds in Boulder, Colorado. Guild of Rocky Mountain Population Biologists Annual Meeting, Crestone, CO.
 106. **Vierling, K.T.** 1995. Habitat selection of the Lewis' woodpecker (*Melanerpes lewis*) in southeastern Colorado. Guild of Rocky Mountain Population Biologists Annual Meeting, Nederland, CO.

Patents: None

Grants and Contracts Awarded: (provide principal and co investigators, title, sponsor, funding dates, amount)

Funding received as an assistant/associate professor: I received the prestigious NSF CAREER award for \$500,000 to study the influences of post-fire succession on the keystone function of woodpeckers in pine forests. As noted above, I was in a 75% teaching position from 1999-2004, a 75% tenure track position from 2004-2007, and have been in a full-time tenure track position since Fall, 2007. I was on sabbatical for the 2010-2011 academic year at the Center for Tropical Agriculture and Ecology (CATIE), Costa Rica. To date, I have received over \$3.6 million in grants.

1. **K.T. Vierling**, S. Gilbert, J. Vogeler, and J.D. Holbrook. NASA. Evaluating GEDI data fusion tradeoffs for characterizing critical habitat components for animals and biodiversity assessments. \$441,741. 1/1/2021 – 12/31/2023.
2. C. Conway and **K.T. Vierling**. Causes of low nest success of Western and Clark's grebes. US Geological Survey. \$200,000. 6/1/2020 – 5/31/2025
3. **K.T. Vierling** and C. Conway. The National Educational Partnership for Diversity in Conservation Science. Doris Duke Charitable Foundation \$358,027. 5/1/2020 – 10/1/2023.
4. Conway, C. and **K.T. Vierling**. Causes of low nest success of Western and Clark's grebes. Bureau of Reclamation. \$89,594. 7/27/2020 – 12/31/2023.
5. Conway, C. and **K.T. Vierling**. Causes of low nest success of Western and Clark's grebes. USFWS \$40,556. November 2019 – October 2022.
6. Conway, C. and **K.T. Vierling**. Causes of low nest success of Western and Clark's grebes. USFWS. \$16,000. 5/1/2019 – 4/29/2020.
7. **Vierling, K.T.** (PI). Avian inventory and habitat analysis for the Weippe Prairie, Nez Perce National Historical Park. National Park Service. \$38,000. Dates 9/9/2017 – 12/31/2019.
8. **Vierling, K.T.** (PI). Administrative support for the Upper Columbia Basin Inventory and Monitoring program; \$71,193. PI shift to Dr. Jocelyn Aycrigg in January 2022. 9/20/2017 – 9/1/2022.
9. **Vierling, K.T.** (PI). Fungal associations of woodpecker cavities. US Forest Service. \$5000. 8/1/2016 -7/31/2021.
10. **Vierling, K.T.** (PI). Avian inventory and habitat analysis for the Weippe Prairie, Nez Perce National Historical Park. \$61,591. Dates 9/9/2016 – 12/31/2019.

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11. **Vierling, K.T.** (PI). Developing vegetation assessment protocols. \$104,017. 9/1/2016 – 11/30/2022. National Park Service. PI shift to Dr. Jocelyn Aycrigg in January 2022.
12. **Vierling, K.T.** (PI), C. Conway (co-PI), C. Moffitt (co-PI), and M. Quist (co-PI). The National Educational Partnership for Diversity in Conservation Science. Doris Duke Charitable Foundation \$318,529. Dates 5/1/2016 – 12/31/2019.
13. **Vierling, K.T.** (PI) and E. Strand. Aspen vulnerability and effects on wildlife. Northwest Climate Science Center. \$31,300. 1/1/2015 – 8/13/2016.
14. **Vierling, K.T.** (PI). Small mammal inventory and species assessment project for the Weippe Prairie Site, Nez Perce National Historical Park. National Park Service. Dates: 8/1/2014 – 12/31/2015. \$11,580.
15. **Vierling, K.T.** (PI), C. Conway (co-PI), and C. Moffitt (co-PI). The National Educational Partnership for Diversity in Conservation Science. Doris Duke Charitable Foundation. Dates: 1/1/2014 – 12/31/2016. \$227,648. *Three out of 122 proposals were funded.
16. Conway, C. (PI), C. Moffitt (co-PI), and **K.T. Vierling** (co-PI). The effect of disturbance on animal communities. US Geological Survey. Dates: 10/01/2013 – 12/01/2019. \$283,330.
17. **Vierling, K.T.** (PI). Small mammal inventory and species assessment for the Wieppe Prairie Site, Nez Perce National Historic Park. National Park Service. 05/27/2013 – 12/31/2015. \$51,938.
18. **Vierling, K.T.** (PI). Rodent abundance, predation, and dispersal of whitebark pine seed. US Forest Service Dates: 04/01/2012 – 12/31/2014. \$8300.
19. **Vierling, K.T.** (PI). Cooke City whitebark pine restoration and effectiveness monitoring. US Forest Service. Dates: 8/29-2011 – 7/31/2016. \$10,000.
20. **Vierling, K.T.** (PI). Rodent dispersal of whitebark pine seeds. US Forest Service. Dates: 6/15/2011 – 6/30/2012. \$6400.
21. **Vierling, K.T.** (PI). White-headed woodpecker space use in the eastern Washington Cascades. US Forest Service. 5/30/2011 – 12/31/2011. \$13000.
22. Bosque-Perez (PI) et al. **Vierling, K.T.** (participant). Evaluating resilience of ecological and social systems in changing landscapes: a doctoral research and education program in Idaho and Costa Rica. National Science Foundation. Dates: 2009-present. \$3.2 million.
23. **Vierling, K.T.** (PI). The role of fire severity and watershed characteristics on cavity excavator dynamics in the Frank Church Wilderness. DeVlieg Graduate Research Assistantship. Dates: 1/1/2009-12/31/2009. \$20,000.
24. **Vierling, K.T.** (PI). Utilizing lidar in assessments of forest structure and avian communities on the Nez Perce National Forest. U.S. Forest Service. Dates: 7/1/2009 - 7/21/2014. \$20,600.
25. **Vierling, K.T.** (PI) and L.A. Vierling (co-PI). U.S. Geological Survey. Incorporation of keystone species maps in GAP models to improve species habitat and biodiversity assessments. Dates: 08/15/2008 - 8/14/2012. \$241,724.
26. **Vierling, K.T.** (PI) University of Idaho Seed Grant. An interdisciplinary approach to the assessment of forest structure and its influence on cavity nester habitat selection and keystone species function. 2007. \$8000.
27. **Vierling, K.T.** (PI), K. Launchbaugh (co-PI), S. Bunting (co-PI), S. Cooke (co-PI), and E. Strand (co-PI). Enhancing the spatial heterogeneity of grazed landscapes: implications for the fire fuel matrix and insects and birds. U.S. Department of Agriculture. Dates: 10/01/06 – 9/30/09.

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- \$180,000.
28. **Vierling, K.T.** (PI). NSF EPSCoR. \$9911. Support of graduate students in STEM fields.
 29. **Vierling, K.T.** (PI). Assessment of avian community composition and reproduction within juniper/aspen stands in the Owyhees. Idaho Fish and Game Department. 2008-2010: \$26,900.
 30. **Vierling, K.T.** (PI). Gender in Science and Engineering: Implementation of a women's mentoring program to increase retention of female undergraduate science and engineering students at the South Dakota School of Mines and Technology. National Science Foundation. 2004-2009. \$200,000.
 31. **Vierling, K.T.** (PI) Black-backed and Lewis's Woodpecker reproduction following fire and salvage logging in the Jasper Fire. South Dakota Game, Fish, and Parks. 2003-2004. \$28,900.
 32. **Vierling, K.T.** (PI) The use of LiDAR remote sensing to determine avian diversity. South Dakota NASA-EPSCoR Program Initiation Grant. 2004. \$10,000.
 33. **Vierling, K.T.** (PI) The potential uses of LiDAR (Light Detection and Ranging) for detecting avian community structure. South Dakota NASA-EPSCoR Graduate Research Assistant funding. 2003. \$7,000.
 34. **Vierling, K.T.** (PI) Black-backed and Lewis's Woodpecker reproduction following fire and salvage logging in the Jasper Fire. South Dakota Game, Fish, and Parks. 2002-2003. \$30,000.
 35. **Vierling, K.T.** (PI) Surveys of woodpecker abundance following the Jasper Fire. South Dakota Game, Fish, and Parks Small Diversity Grant program. 2001. \$5000.
 36. **Vierling, K.T.** (PI) Research experience for undergraduates: supplement. National Science Foundation. 2002-2006. \$6,000.
 37. **Vierling, K.T.** (PI) CAREER: A keystone species approach to determining post-fire successional influence on cavity user communities in the Black Hills, South Dakota. (DEB 0133854); National Science Foundation. 2001-2006. \$500,000.
 38. **Vierling, K.T.** (PI). Evaluation of a model examining post-fire impacts of the Jasper fire on primary cavity nesters. U.S. Forest Service 2001-2002. \$100,000.
 39. **Vierling, K.T.** (PI) Development of an ecologically-related research/educational program. Bush Foundation Fellowship Grant. \$3300. 2001.
 40. **Vierling, K.T.** (PI) South Dakota Game, Fish and Parks Department. (2000-2003) \$68,741. A multi-agency approach to managing a brown trout fishery.
 41. **Vierling, K.T.** (PI) South Dakota School of Mines and Technology Nelson Grant. \$5000. The effects of suburbanization on brown trout diet.

Funding received as a student: I received approximately \$63,000 as a graduate student. The largest grant supporting my graduate activities was the Patricia Roberts Harris Fellowship from the Department of Education to support minorities in the sciences.

Honors and Awards:

- | | |
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| 2020 | Invited to be a co-advisor for João Soutinho's PhD committee; University of Portugal, Porto |
| 2019 | Selected to be an external reviewer for a PhD student at Melbourne University, |

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Australia

- 2019 Nominated and selected as an American Ornithological Society Elective Member, based on significant contributions to ornithology and/or service to AOS.
- 2019 Selected as the host faculty member for mentoring and collaborating with two PhD students funded by the University of Freiburg
- 2019 Selected to be an external reviewer for a PhD student at LaTrobe University, Australia
- 2015 Selected to be one of two external “PhD opponents” for an international dissertation defense; the invitation was from the Norwegian University of Life Sciences.
- 2014 Invited to be the plenary speaker at an international workshop entitled “3D vegetation mapping using advanced remote sensing- implications for seamless modeling of terrestrial ecosystems” in September 2014 in Grafenau, Germany, hosted by the Nationalpark Bayerischer Wald.
- 2010 Idaho Chapter of the Wildlife Society Outstanding Professional Presentation Award
- 2010 Selected to be an external reviewer for a PhD student at the University of Tasmania

SERVICE:

Major Committee Assignments: (National, State, District, County, University, College, Departmental and dates)

University

1. UI Budget and Finance Committee (Fall 2016 – Spring 2019)
2. President’s Diversity Council (Fall 2016 – Spring 2020)
3. Gender Equity in Athletics (Spring 2016 – Spring 2017)
4. Periodic review committee for CNR dean; Fall 2014
5. Search committee, Head Women’s soccer coach (January 2014)
6. University Curriculum Committee (Fall 2013-present)
7. President’s Athletic Advisory Council (Fall 2013 – present)
8. Borah Committee (2013-2014)
9. University Classroom Improvement Initiative committee (2012-2015)
10. University of Idaho Doctoral Scholars Program (2010 – 2012)
11. Honors degree committee (2009-2012)
12. Commencement Committee (2005-2008; Chair, 2007-2008)
13. Teaching Enhancement Committee (2005-2008)
14. Search committee for International Studies position (served as outside member), 2006

College of Natural Resources

1. CNR Diversity and Inclusion committee, co-chair, 2020.
2. CNR Promotion and Tenure review committee, Chair, 2013-2014.
3. Masters of Natural Resources committee (2009-2010)
4. Graduate student committee (2009, 2010)
5. Represented college/department at “Prospective graduate student day”, October 9, 2009.

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6. Committee on Committees (2008-2010)
7. Strategic Enrollment Management committee (2008)
8. Member of the Ecology and Conservation Biology faculty (2004-present)

Department

1. Search committee chair for Research Assistant Professor (2017-2018).
2. Promotion committee for faculty member; Chair (2016)
3. Student programs committee; Co-Chair (2016-present).
4. Search committee for Wildlife Ecology and Management faculty position; Chair (2014-2015)
5. Search committee for department head (2013-2014)
6. Search committee for population ecologist (2013-2014)
7. Tenure committee for faculty member; chair (2009)
8. Promotion committee for faculty member (2009)
9. Facilitated transfer of bird collection from Biological Sciences to the Department of Fish and Wildlife; catalogued and organized collection (2008-2009).
10. Search committee, Limnology position (2006-2007)
11. DeVlieg Award Committee (2006)
12. Tenure and promotion committee for faculty member (2006)
13. Fish and Wildlife Gratson Scholarship committee (2005, 2009)
14. Fish and Wildlife Curriculum committee (2005-present)

Professional and Scholarly Organizations (including memberships, committee assignments, editorial services, offices held and dates)

Memberships:

1. The Wildlife Society
2. The Ecological Society of America
3. American Ornithologists' Union
4. Cooper Ornithological Society
5. Association of Field Ornithologists
6. Wilson Ornithological Society

Committee assignments

1. Student awards committee, American Ornithologists' Union, 2009-2012.
2. Paper and poster judge for the Idaho Chapter of the Wildlife Society annual meeting, March 2012.
3. Session chair for the Idaho Chapter of the Wildlife Society meeting, 2008, Boise, ID.
4. Judge for the best student presentation; Joint meeting of the American Ornithologists' Union, Cooper Ornithological Society, and Canadian Field Ornithologist meeting, Portland, OR, 2008.
5. Organized the scientific program for the Idaho Chapter of the Wildlife Society meeting, 2006, 2007, Boise, ID.
6. Vice president, Idaho Chapter of the Wildlife Society 2006-2007.
7. Lead organizer of the scientific program as well as the overall logistics for the Cooper Ornithological Society national conference held in Moscow, ID in June 2007.
8. Invited member of a national 5-person Committee of Visitors (COV) to assess NSF EPSCoR and to provide future recommendations for the direction of NSF EPSCoR. July 26-27, 2005.
9. Invited reviewer of scientific accuracy (by the Black Hills National Forest) of the Draft EIS concerning the Black-backed Woodpecker in the Black Hills (March, 2005)

Editorial services

1. 2015 – present; external reviewer for approximately 8 manuscripts/year from journals such as Ecosphere, Ecological Applications, Remote Sensing of Environment, Ibis and others.
2. 2014 – Panel member for National Science Foundation, Division of Environmental Biology,

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Spring 2014

3. Associate Editor, *Journal of Wildlife Management*, 2011 – 2020.
4. 2014 – Reviewed ~ 7 articles for journals such as *Trends in Ecology and Evolution*, *Remote Sensing of Environment*, and *Journal of Ornithology*.
5. 2013 – Reviewed 8 manuscripts for journals such as *European Journal of Remote Sensing*, *The Auk*, and *Forest Ecology and Management*
6. 2011 (*on sabbatical for spring semester) – reviewed 5 manuscripts for journals such as *Remote Sensing of Environment*, *Journal of Applied Ecology*, and *The Condor*
7. 2010 (*on sabbatical for fall semester) – reviewed manuscripts for *Forest Ecology and Management and Systematics and Biodiversity*
8. 2009 - Reviewed 7 manuscripts for journals such as *Ecological Applications*, *Forest Ecology and Management*, and *Journal of Field Ornithology*
9. 2008 – Reviewed 7 manuscripts for journals such as *Ecological Applications*, *Wildlife Biology*, and *The Auk*
10. 2007 – Reviewed 7 manuscripts for journals such as *The Auk*, *Journal of Environmental Management*, and the *American Midland Naturalist*
11. 2006 – Panel member for the National Science Foundation Partnerships for Innovation program
12. 2006 - External reviewer for the National Science Foundation
13. 2005 External reviewer for the National Science Foundation
14. 2005- External reviewer for the US Forest Service
15. 2005 – Reviewed 6 manuscripts for journals such as the *Wildlife Society Bulletin* and *Forest Ecology and Management*.
16. 2000-2005: Published over 50 reviews of current literature and books in the *Journal of Field Ornithology*.

Outreach Service: (Including popular press, interview articles, newspaper articles, workshops-seminars-tours organized, Extension impact statements)

1. Vierling, KT. 2016. Fire effects on avian populations and communities. *Palouse Audubon Society*. February 2016.
2. Facilitated implementation of a “Birding in Schools” grant for nest boxes with cameras to be installed at 2 elementary schools and at the McCall Outdoor Science School. 2016.
3. Hudak, A.T., **S. Finch**, **K. Vierling**, L. Vierling, **J. Vogeler***, and **C. Swift***. 2014. Ecosystem services with backyard benefits: avian diversity, forest diversity, and carbon sequestration on Moscow Mountain. Sponsored by White Pine Chapter, Idaho Native Plant Society, Moscow, Idaho, 23 Jan 2014. (oral presentation).
4. Guest speaker, “Life/work balance in the natural resource field”; Honors Brown Bag, January 29, 2014.
5. Field Ecology class instructor for K-12 teachers, McCall Outdoor Science School, June 2010.
6. Field Ecology class instructor for University of Idaho Helping Orient Indian Students and Teachers into STEM (HOIST) students, McCall Outdoor Science School, June 2010.
7. Work by UI advisee Patrick Adam presented at the American Geophysical Union meeting in 2009 highlighted by BBC News. <http://www.bbc.com/news/science-environment-11867165>.
8. Field ecology class instructor, Boise Boys and Girls Club, McCall Outdoor Science School, July, 2009.
9. Field ecology class instructor, University of Idaho Helping Orient Indian Students and Teachers into STEM (HOIST) students, McCall Outdoor Science School, July, 2009.
10. Guest presenter, McDonald Elementary, Moscow, Idaho, “Owls”, September 24, 2009
11. Guest presenter, McDonald Elementary, Moscow, Idaho, “Bats”, September 24, 2009
12. Guest presenter, McDonald Elementary, Moscow, Idaho, “Animal Adaptations”, September 5 and September 19th, 2008

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13. Interviewee for Cub Scout member's badge requirement, November 10th, 2008
14. Guest presenter, Palouse Audubon Society, "Fire effects on cavity nester communities", December 17, 2008.

Community Service: (non-academic unrelated to employment)

1. Board member, Moscow Education Foundation; 2018-2021
2. Central American Youth Ambassador mentor: 2 Latina students, 3+ years, 2013 to 2019
3. Soccer coach, Moscow United Soccer Club, 2009-2016
4. Soccer coach, Quad Cities Fusion, 2016-2017
5. Moscow Arts Commission Band, 2011-2015

Honors and Awards: None for service

PROFESSIONAL DEVELOPMENT: (workshops and seminars attended)

Teaching/Advising:

1. "Creating interactive presentations...in under 30 minutes". October 28, 2019. UI Center for Excellence in Teaching and Learning workshop.
2. "Creating Significant Online Learning Experiences". September 30, 2019. UI Center for Excellence in Teaching and Learning workshop.
3. "Teaching for Learning: making the most of the new science of learning". November 8, 2017. Speaker: Dr. Todd Zakrajsek, UNC-Chapel Hill. Seminar supported by the UI Center for Excellence in Teaching and Learning
4. "Teaching large classes", November 2, 2017, UI Center for Excellence in Teaching and Learning workshop
5. "Classroom and teaching assessment techniques", October 19, 2017, UI Center for Excellence in Teaching and Learning workshop.
6. "Turning around academic performances: academic resilience among 'at risk' university students. Region 8 NACADA conference, Missoula, MT, April 11-12, 2017.
7. "Mindful advising for the anxious health-profession student". Region 8 NACADA conference, Missoula, MT, April 11-12, 2017.
8. "Supporting students post-election: impacts of Trump presidency and how advisors can help". Region 8 NACADA conference, Missoula, MT, April 11-12, 2017.
9. "Exploring student identity: integrating career conversations into academic advising". Region 8 NACADA conference, Missoula, MT, April 11-12, 2017.
10. "Gen Z: is it the end of advising as we know it?" Region 8 NACADA conference, Missoula, MT, April 11-12, 2017.
11. "The art of observation: melding science and art". Region 8 NACADA conference, Missoula, MT, April 11-12, 2017.
12. "Developing a shared understanding to enrich the international student experience". Region 8 NACADA conference, Missoula, MT, April 11-12, 2017.
13. "Expanding your comfort zone: strategies for developing and demonstrating cultural competence in academic advising". NACADA (National Academic Advising Association). Youtube: <https://www.youtube.com/watch?v=Kt3LaHXmkvs&feature=youtu.be>. October 21, 2016.
14. "College student mental health: information and suggestions for academic advising". youtube: <https://www.youtube.com/watch?v=3e5fw19p2fE>. October 20, 2016.
15. Approaches for teaching undergraduate laboratories in ornithology. August 16, 2016, North American Ornithological Conference, Washington DC
16. Forum on innovative teaching; August 16, 2016, North American Ornithological Conference, Washington DC
17. "Effective Academic Advising Strategies", NACADA. youtube: www.youtube.com/watch?v=nMw9UChY9IE. January 2016.
18. "Trends and Future for Technology in Advising" NACADA. youtube:

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- www.youtube.com/watch?v=tnYoKaOljuA. January, 2016.
19. "Empathy while traveling in the 'Tin Shed' – Engaging Students in Cultural Diversity" – Teaching Excellence Brown Bag series, March 7, 2013.
 20. 3 weeks of Spanish training; increasing proficiency in Spanish, 2010-2011
 21. "Advising in the face of apathy", UI advising symposium, September 11, 2009
 22. "Exploring and writing your philosophy of advising", UI advising symposium, September 11, 2009.
 23. "Significant Conversations: The Art and Science of Communication in Transformational Advising. November 6, 2008. NACADA Webinar @ the University of Idaho.
 24. "What matters most to Native American students in colleges and universities". Presented at the symposium "Balancing "new knowledge with cultural wisdom: American Indian student development conference". University of Idaho. November 9-10, 2008.
 25. "Providing student support services for American Indian students at predominately white institutions: a comprehensive approach. Presented at the symposium "Balancing "new knowledge with cultural wisdom: American Indian student development conference". University of Idaho. November 9-10, 2008.
 26. "What is it that your office does, exactly? Defining the intricacies, needs, and good work of the Native American student affairs unit". Presented at the symposium "Balancing "new knowledge with cultural wisdom: American Indian student development conference". University of Idaho. November 9-10, 2008.
 27. "Exploring Blackboard", University of Idaho, October 30, 2007
 28. "Scientific teaching and interactive learning: strategies to maximize student understanding in the biological sciences", Ecological Society of America annual meeting, San Jose, CA, August 5, 2007.
 29. "Advising strategies and assessing advising effectiveness", University of Idaho, September 7, 2007.
 30. "Building partnerships with helicopter parents", University of Idaho, September 7, 2007.
 31. "Academic advising and the millenials: new issues and new demands", University of Idaho, October 13, 2006
 32. "Advising your graduate student: supervising and mentoring for your mutual success", October 13, 2006
 33. Advising brown bag luncheon, November 11, 2006
 34. "Teaching with Technology", University of Idaho, September 21, 2005
 35. "Advising: more than just course selection", University of Idaho, October 14, 2005
 36. "Student responsibility in advising", University of Idaho, October 14, 2005
 37. "The academic advisor as teacher: facilitating student learning", University of Idaho, 2005

Scholarship:

1. Bird banding with El Programa Monitoreo de Aves at the Center for Tropical Agriculture and Ecology (CATIE), Costa Rica. August 2009 – July 2010.
2. "Introduction to R", September-October 2009
3. "Modeling in R", September – October 2009
4. "New approaches to space use and habitat utilization analyses", Cooper Ornithological Society annual meeting, June 20, 2007
5. "Use of stable isotopes in avian studies", Cooper Ornithological Society annual meeting, June 20, 2007
6. NSF - CAREER grant workshop. National Science Foundation. Arlington, VA. 2004

Outreach: NA

Administration/Management:

Director of Graduate Studies, College of Natural Resources: August 17, 2020 – present