

Timothy J. Assal

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Education

- Ph.D. 2015. Colorado State University, Fort Collins, CO. Ecology (Emphasis in Biogeography, Remote Sensing, Disturbance Ecology).
- M.S. 2001. University of Wyoming, Laramie, WY. Botany (Emphasis in Spatial Ecology).
- B.S. 1999. The George Washington University, Washington, DC. Environmental Studies (Minor: Geography).

Professional Academic Experience

- 2019 - present Assistant Professor – Dept. of Geography, Kent State University
- 2016 - present Affiliate Professor – Dept. of Anthropology & Geography Program, Colorado State University
- 2016 - 2019 Postdoctoral Research Ecologist – U.S. Geological Survey, Fort Collins Science Center
- 2011 - 2016 Ecologist (Student Career Experience Program) – U.S. Geological Survey, Fort Collins Science Center

Teaching Experience

- 2019 - present Assistant Professor, Dept. of Geography, Kent State University, Kent, OH
Courses Taught: Environmental Data Analysis in R (Fall 2019, 2020), Remote Sensing (Spring 2020), Natural Disasters and Society (Fall 2020); graduate student mentorship.
- 2016 - present Affiliate Professor, Dept. of Anthropology & Geography, Colorado State University, Ft. Collins, CO. Graduate student mentorship and serving on master and doctoral student advisory committees through the Graduate Degree program in Ecology.
- 2012 Invited Workshop, Dept. of Forestry and Natural Resources, Universidad Austral de Chile, Valdivia, Chile. Course Taught: Land Change Detection, Monitoring and Assessment: Remote Sensing Methods, Workflow and Application.
- 2005 - 2011 Geography Instructor, Dept. of Social and Behavioral Sciences, Front Range Community College, Fort Collins, CO. Courses Taught: World Regional Geography (1 semester) and Physical Geography (14 semesters; traditional classroom, online and hybrid).
- 2001 Biology Laboratory Coordinator, Dept. of Biology, University of Wyoming, Laramie, WY. Coordinated graduate teaching assistants and implemented curriculum for special needs students (1 semester).
- 2000 - 2001 Graduate Teaching Assistant, Dept. of Biology, University of Wyoming, Laramie, WY. Course Taught: Introduction to Biology Laboratory for science-majors (2 semesters).

Funded Research

- Vulnerability of lower-elevation aspen forests to altered fire and climate dynamics: assessing risks and developing actionable science (co-investigator with Doug Shinneman, Paul Rogers, Susan McIlroy). Northwest Climate Adaptation Science Center. **\$299,842**; 2020-2022
- Assessment of environmental benefits of agricultural lands with space-based observations. U.S. Geological Survey. **\$37,000**; 2019-2020
- Monitoring the vegetation dynamics of shrubland ecosystems with respect to ecological disturbance and management actions. U.S. Geological Survey. **\$45,500**; 2019-2020
- Assessment of deciduous riparian communities using remote sensing. Wyoming Game and Fish Department. **\$10,000**; 2018

- Assessing environmental benefits of the Conservation Reserve Program grasslands to inform USDA conservation policies (co-investigator with Mark Vandever). U.S. Department of Agriculture. **\$273,000**; 2018-2019.
- Assessment of aspen community condition in the Bighorn Mountains. Wyoming Governor’s Big Game License Coalition. **\$10,000**; 2017.
- Assessing Treatment Effectiveness of Mule Deer Enhancement Projects within the Rio Grande del Norte National Monument, NM (co-investigator with Collin Haffey). BLM Taos Field Office **\$60,000**; 2017-2019
- Persistence of USDA Conservation Practices for Wildlife Benefits (co-investigator with Mark Vandever and Sarah Carter). U.S. Department of Agriculture. **\$430,000**; 2016-2017
- Time-series analysis of multi-resolution imagery to quantify sagebrush defoliation and mortality in SW Wyoming. Wyoming Landscape Conservation Initiative. **\$80,000**; 2015-2017
- Effectiveness monitoring of conservation actions in focal ecosystems of southwestern Wyoming. Wyoming Landscape Conservation Initiative (co-investigator with Patrick Anderson). **\$225,000**; 2013-2017
- Doctoral Dissertation Improvement Award. U.S. Geological Survey. **\$7,000**; 2014
- Rapid assessment of woodland vegetation to link ground measurements with space-based observations (co-investigator with Patrick Anderson). U.S. Geological Survey. **\$29,200**; 2014

Refereed Journal Publications

- Germaine, S., **T.J. Assal**, A. Freeman, and S.K. Carter, 2020. [Distance effects of gas field infrastructure on pygmy rabbits in southwestern Wyoming](#). *Ecosphere* 11(8): e03230.10.1002/ecs2.3230 *Open-access
- Coop, J., S. Parks, C. Stevens-Rumann, (and others including **T.J. Assal**). [Wildfire-driven forest conversion in western North American landscapes](#). *BioScience* 70(8):659-673 *Open-access
- **Assal, T.J.**, González, M.E., and Sibold, J.S., 2018. [Burn severity controls on postfire Araucaria-Nothofagus regeneration in the Andean Cordillera](#). *Journal of Biogeography*: 45(11):2483-2494. *Open-access
- Carlson, A.R., J. Sibold, **T.J. Assal**, and J. Negron, 2017. [Evidence of Compounded Disturbance Effects on Vegetation Recovery Following High-Severity Wildfire and Spruce Beetle Outbreak](#). *PLoS One* 12(8): e0181778. *Open-access
- Monroe, A.P., C.L. Aldridge, **T.J. Assal**, K.E. Veblen, D.A. Pyke, M.L. Casazza, 2017. [Patterns in Greater Sage-grouse population dynamics correspond with public grazing records at broad scales](#). *Ecological Applications* 27(4):1096-1107
- Malone, S.L., M.G. Tulbure, A.J. Perez, **T.J. Assal**, L.L. Bremer, D.P. Drucker, V. Hillis, S. Varela, and M. Goulden, 2016. [Drought resilience across California ecosystems: evaluating changes in carbon dynamics using satellite imagery](#). *Ecosphere* 7(11): e01561. 10.1002/ecs2.1561 *Open-access
- **Assal, T.J.**, Anderson, P., Sibold, J., 2016. [Spatial and Temporal Trends of Drought Effects in a Heterogeneous Semi-Arid Forest](#). *Forest Ecology and Management* 365:137-151. *Open-access
- **Assal, T.J.**, Anderson, P., Sibold, J., 2015. [Mapping forest functional type in a forest-shrubland ecotone using SPOT imagery and predictive habitat distribution modelling](#). *Remote Sensing Letters* 6:755–764.
- **Assal, T.J.**, J. Sibold, and R. Reich. 2014. [Modeling an Historical Mountain Pine Beetle Outbreak Using Multiple Lines of Evidence](#). *Remote Sensing of Environment* 155:275-288.
- O’Donnell, M., **T.J. Assal**, P.J. Anderson, and Z.H. Bowen. 2014. [Geospatial Considerations for a Multi-Organization Landscape-Scale Program](#). *Journal of Map and Geography Libraries* 10(1):62-99.
- Veblen, K.E., D.A. Pyke, C.L. Aldridge, M.E. Cassaza, **T.J. Assal**, and M.A. Farinha. 2014. [Monitoring of Livestock Grazing Effects on the Bureau of Land Management Land](#). *Rangeland Ecology and Management* 67(1):68-77.
- **Assal, T.J.** and J.M. Montag. 2012. [A Tale of Two Land Uses in American West: Rural Residential Growth and Energy Development](#). *Journal of Maps* 8(4): 327-333. *Open-access

- **Assal, T.J.** and J.A. Lockwood. 2007. [Utilizing remote sensing and GIS to the detect prairie dog colonies.](#) *Rangeland Ecology and Management* 60:45-53.

Manuscripts Under Review

- **Assal, T.J.**, V. Steen, T. Caltrider, N. Manning, T. Cundy, C. Stewart, P. Anderson. Monitoring long-term riparian vegetation trends to inform local habitat management in a mountainous environment. *Under Review: Ecological Indicators*.
- Monroe, A.P., D.R. Edmunds, C.L. Aldridge, M.J. Holloran, **T.J. Assal**, A.G. Holloran. Prioritizing market-based conservation programs for grassland birds with hierarchical community models. *Under review: Landscape Ecology*
- Vandever, M.W., S.K. Carter, **Assal, T.J.**, K. Elgersma, A. Wen, J. Welty, R. Arkle, R. Iovanna. Evaluating establishment of conservation practices in the Conservation Reserve Program across the western United States. *Under Review: Environmental Research Letters*.

Book Chapters and Edited Volumes

- **Assal, T.J.** 2020. Quaking Aspen: [The Iconic and Dynamic Deciduous Tree of the Rocky Mountains](#). Pages 20-28 in M.J. Keables. Editor. [The Rocky Mountain West: A Compendium of Geographic Perspectives](#). American Association of Geographers, Washington, D.C.
- **Assal, T.J.**, C.P. Melcher, and N.B. Carr (eds.), 2015. [Southern Great Plains Rapid Ecoregional Assessment - Pre-Assessment Report](#): U.S. Geological Survey Open-File Report 2015–1003. 284 p.

Theses

- **Assal, T.J.** 2015. The ecological legacies of drought, fire, and insect disturbance in western North American Forests. Ph.D. Dissertation. Colorado State University: 194pp.
- **Assal, T.J.** 2001. Detection of black-tailed prairie dog colonies on Wyoming mixed-grass prairie integrating remote sensing and GIS. Thesis. University of Wyoming: 123pp.

Referred Government Publications & Data

- Zeigenfuss, L., (and others including **Assal, T.J.**), 2019, [U.S. Geological Survey science for the Wyoming Landscape Conservation Initiative—2017 annual report](#): U.S. Geological Survey Open-File Report 2018–1188, 57 p.
- **Assal, T.J.**, 2018, Bighorn Mountains, Wyoming Forest Mapping, 2013-2017: U.S. Geological Survey data release, <https://doi.org/10.5066/P98OS2XK>.
- **Assal, T.J.**, 2018, Standardized Precipitation Evaporation Index for the Upper Green River Basin (1896-2017): U.S. Geological Survey data release, <https://doi.org/10.5066/P9VLM7Z6>.
- **Assal, T.J.**, 2018, Burn severity (2002) and field data (2012) from Tolhuaca National Park (Chile): U.S. Geological Survey data release, <https://doi.org/10.5066/P9YMIVFU>
- Bowen, Z.H., (and others including **Assal, T.J.**), et al. 2018, [U.S. Geological Survey science for the Wyoming Landscape Conservation Initiative—2016 annual report](#): U.S. Geological Survey Open-File Report 2018–1048, 49 p.
- Manier, D.J., Anderson, P.J., **Assal, T.J.**, Chong, G.W., Melcher, C.P., 2017, Monitoring the southwestern Wyoming landscape – A foundation for management and science: U.S. Geological Survey Fact Sheet 2017–3030, 6 p., <https://doi.org/10.3133/fs20163030>.
- Reese, G.C., D.J. Manier, N.B. Carr, R. Callan, I.F. Leinwand, **T.J. Assal**, L. Burris, D.A. Ignizio, 2016, [Estimated Historical Distribution of Grassland Communities of the Southern Great Plains](#): U.S. Geological Survey Open-File Report 2016–1184. 13 p.
- Bowen, Z.H., Aldridge, C.L., Anderson, P.J., **Assal, T.J.**, et al. 2016, [U.S. Geological Survey science for](#)

- [the Wyoming Landscape Conservation Initiative—2015 annual report](#): U.S. Geological Survey Open-File Report 2016–1141, 70 p.
- Bowen, Z.H., Aldridge, C.L., Anderson, P.J., **Assal, T.J.**, et al. 2015, [U.S. Geological Survey science for the Wyoming Landscape Conservation Initiative—2014 annual report](#): U.S. Geological Survey Open-File Report 2015–1091, 61 p.
 - Bowen, Z.H., Aldridge, C.L., Anderson, P.J., **Assal, T.J.**, et al. 2014, [U.S. Geological Survey science for the Wyoming Landscape Conservation Initiative—2013 annual report](#): U.S. Geological Survey Open-File Report 2014–1213, 60 p.
 - Bowen, Z.H., C.L. Aldridge, P.J. Anderson, **T.J. Assal**, et al. 2014. [U.S. Geological Survey Science for the Wyoming Landscape Conservation Initiative—2012 Annual Report](#): U.S. Geological Survey Open-File Report 2014–1093. 71 p.
 - Bowen, Z.H., C.L. Aldridge, P.J. Anderson, **T.J. Assal**, et al. 2013. [U.S. Geological Survey Science for the Wyoming Landscape Conservation Initiative—2011 Annual Report](#): U.S. Geological Survey Open-File Report 2013–1033. 145 p.
 - **Assal, T.J.**, S.L. Garman, Z.H. Bowen, P.J. Anderson, D. Manier, and R.R. McDougal. 2012. [Data Resources for the Wyoming Landscape Conservation Initiative \(WLCI\) Integrated Assessment \(IA\)](#): U.S. Geological Survey Data Series 700.
 - **Assal, T.J.**, K.E. Veblen, M.A. Farinha, C.L. Aldridge, M.E. Cassaza, and D.A. Pyke. 2012. [Data resources for range-wide assessment of livestock grazing across the Sagebrush Biome](#): U.S. Geological Survey Data Series 690.
 - Bowen, Z.H., C.L. Aldridge, P.J. Anderson, **T.J. Assal**, et al. 2011. [U.S. Geological Survey Science for the Wyoming Landscape Conservation Initiative—2010 Annual Report](#): U.S. Geological Survey Open-File Report 2011–1219. 147 p.
 - Veblen, K.E., D.A. Pyke, C.L. Aldridge, M.L. Cassazza, **T.J. Assal**, and M.A. Farinha. 2011. [Range-Wide Assessment of Livestock Grazing Across the Sagebrush Biome](#): U.S. Geological Survey Open-File Report 2011-1263, 74p.
 - Bowen, Z.H., C.L. Aldridge, P.J. Anderson, **T.J. Assal**, et al. 2010. [U.S. Geological Survey Science for the Wyoming Landscape Conservation Initiative—2009 Annual Report](#): U.S. Geological Survey Open-File Report 2010-1231. 106 p.
 - Bowen, Z.H., C.L. Aldridge, P.J. Anderson, **T.J. Assal**, et al. 2009. [U.S. Geological Survey Science for the Wyoming Landscape Conservation Initiative—2008 Annual Report](#): U.S. Geological Survey Open-File Report 2009–1201. 83 p.

Technical Reports

- **Assal, T.J.** 2008. Cracking the Code: Making Sense of the Irrigation Geodatabase Tool. Report detailing customized GIS (utilizing ArcObjects and Visual Basic for Applications); prepared for Anderson Consulting Engineers, Inc.
- **Assal, T.J.** 2007. Irrigation Geodatabase Tool User’s Manual. Prepared for Anderson Consulting Engineers, Inc.
- **Assal, T.J.** and J.R. Sovell. 2004. Black-tailed prairie dog surveys of BLM lands in eastern Colorado. Bureau of Land Management Report. Prepared for the Colorado Natural Heritage Program.
- **Assal, T.J.** and R.W. Marrs. 2002. Remote evaluation of surface morphology and wildlife habitat in the vicinity of selected Peacekeeper Missile Facilities. Prepared for the U.S. Dept. of Defense; F.E. Warren Air Force Base Report.
- **Assal, T.J.** and J.A. Lockwood. 2002. Comparison of three remote sensing methodologies applied to the detection of black-tailed prairie dog colonies. Wyoming Game and Fish Report.

Presentations (since 2009)

- **Assal, T.J.** 2020. (*Invited Talk*) The legacies of fire in forest ecosystems: initiating change from local to landscape scales. Dept. of Biological Sciences, Kent State University, Ohio.
- **Assal, T.J.**, C. Haffey, E. Margolis, and C. Allen. 2019. An Open-Access Framework to track post-fire shifts in dominant plant function type at the watershed scale (Contributed Poster). American Geophysical Union Annual Meeting, San Francisco, California.
- **Assal, T.J.**, C. Haffey, E. Margolis, and C. Allen. 2019. Fire Sparks Conversion: Measuring Decadal Changes to Vegetation Structure in the Jemez Mountains. US-Int. Assoc. for Landscape Ecology Annual Meeting, Fort Collins, CO.
- **Assal, T.J.**, C. Haffey, E. Margolis, and C. Allen. 2019. Big fires lead to big changes in the vegetation structure of the Jemez Mountains, New Mexico. American Association of Geographers Annual Meeting, Washington, DC.
- **Assal, T.J.** 2019. (*Invited Talk*) From pixel to process: a space-based approach to gain insight into management of current and future landscapes. Dept. of Geography, Kent State University, Ohio.
- **Assal, T.J.** 2018. (*Invited Talk*) Mining the Macroscope to Understand Legacies of Ecological Disturbance: Insight into management of current and future landscapes. Dept. of Social Science, California Polytechnic State University, California.
- A. Carlson, J. Sibold, and **T.J. Assal**. 2018. Compound disturbance effects on vegetation recovery from spruce beetle outbreak and high-severity wildfire. American Association of Geographers Annual Meeting, New Orleans, LA.
- **Assal, T.J.**, P. Anderson, J. Randall, and K. Clause. 2017. A coarse-scale approach to understand drought-induced variability of sagebrush ecosystem productivity. Wyoming Chapter of The Wildlife Society Annual Meeting, Jackson, Wyoming.
- Germaine, S., S. Carter, A. Freeman, and **T.J. Assal**. 2017. Distance effects of gas field infrastructure on pygmy rabbits residing in the remaining undeveloped shrubsteppe habitat. Wyoming Chapter of The Wildlife Society Annual Meeting, Jackson, Wyoming.
- **Assal, T.J.** 2017. (*Invited Talk*) Remote sensing and the Macroscope provide key insights for Aspen Communities. 2017 Aspen Days Workshop (Wyoming Game and Fish Dept., U.S. Forest Service, Bureau of Land Management, Western Aspen Alliance), Sheridan, Wyoming.
- **Assal, T.J.**, M. González, and J. Sibold. 2017. Burn severity and post-fire regeneration in Chilean *Araucaria-Nothofagus* Forest. Ecological Society of American Annual Meeting, Portland, OR.
- **Assal, T.J.** 2017. (*Invited Talk*) Disturbance Legacies in Temperate Forests: Insight into management of current and future landscapes. Department of Geography & Environment, San Francisco State University, California.
- **Assal, T.J.** and P. Anderson. 2016. A cross-scale approach to understand drought-induced variability of sagebrush ecosystem productivity. American Geophysical Union Annual Meeting, San Francisco, California.
- **Assal, T.J.** and J. Sibold. 2016. After the gray phase: Can an historical mountain pine beetle outbreak influence subsequent patterns of burn severity? Ecological Society of American Annual Meeting, Fort Lauderdale, FL.
- **Assal, T.J.** 2016. (*Invited Talk*) Condition and Trends of Aspen Communities in Wyoming using Spaced-based Observations. 2016 Aspen Days Workshop (Wyoming Game and Fish Dept., U.S. Forest Service, Bureau of Land Management, Western Aspen Alliance), Lander, Wyoming.
- **Assal, T.J.** 2016. (*Invited Talk*) Spaced-based observations: “existing data” or untapped monitoring resource? Broader-scale Monitoring Strategy Workshop (U.S. Forest Service), Laramie, Wyoming.
- González, M., A. Muñoz, **T.J. Assal**, J. Sibold. 2016. Fire regimes and fire effects in Chilean *Araucaria* forests. VIII Southern Connection Congress, Punta Arenas, Chile.
- **Assal, T.J.**, P. Anderson and J. Sibold. 2015. Spatial and Temporal Analysis of Drought Effects in a

Heterogeneous Semi-Arid Forest Ecosystem (Contributed Poster). American Geophysical Union Annual Meeting, San Francisco, California.

- **Assal, T.J.**, P. Anderson and J. Sibold. 2015. Spatial and Temporal Trends of Drought Effects on Aspen Forest in Southwestern Wyoming. The Wildlife Society and Wyoming Landscape Conservation Initiative Joint Conference, Lander, Wyoming.
- Monroe, A.P., C.L. Aldridge, **T.J. Assal**, Veblen, K.E., D.A. Pyke, and M.L. Cassazza. 2015. Broad-scale population response of Greater Sage-Grouse (*Centrocercus urophasianus*) to grazing management and precipitation. 13th International Grouse Symposium, Reykjavik, Iceland.
- **Assal, T.J.** 2015. Fire, Insects and Drought: Using Remote Sensing to Uncover Ecological Legacies of Forest Disturbance. USGS Seminar, Fort Collins Science Center, Colorado.
- **Assal, T.J.** and J. Sibold. 2014. Spatial and Temporal Analysis of Drought Impacts on Semi-Arid Woodlands. ForestSAT, Riva del Garda, Italy.
- **Assal, T.J.**, J. Sibold and R. Reich. 2013. Modeling Mountain Pine Beetle Disturbance in Glacier National Park Using Multiple Lines of Evidence. American Association of Geographers Annual Meeting, Los Angeles, CA.
- **Assal, T.J.** and J. Sibold. 2013. Modeling Mountain Pine Beetle Disturbance in Glacier National Park Using Multiple Lines of Evidence. Front Range Student Ecology Symposium, Colorado State University, Fort Collins, CO.
- **Assal, T.J.**, P.J. Anderson, and A.K. Urza. 2012. Assessment and monitoring of semi-arid woodlands in the Little Mountain Ecosystem abs.. In: Third WLCI Science Mtg, Rock Springs, WY, May 14-17, 2012.
- **Assal, T.J.** and J. Sibold. 2012. Investigation of Disturbance Legacies Despite Vanished Evidence. Front Range Student Ecology Symposium, Colorado State University, Fort Collins, CO.
- **Assal, T.J.** and J. Sibold. 2011. Utilizing Historical Data to Detect Past Ecosystem Disturbance in Glacier National Park. American Association of Geographers Great Plains/Rocky Mountain Division Annual Meeting, Denver, CO.
- Veblen, K.E., D.A. Pyke, C.L. Aldridge, M.L. Cassazza, **T.J. Assal**, and M.A. Farinha. 2011. Monitoring of Livestock Grazing Effects on Bureau of Land Management. (Contributed Poster) Society for Range Management Annual Meeting, Billings, MT.
- **Assal, T.J.** and J.M. Montag. 2010. Modeling Land Cover Change and Human Population Growth using Remote Sensing and Dasymetric Mapping: Scenario Building for Planning and Wildlife Management. American Association of Geographers Annual Meeting, Washington, D.C.
- O'Donnell, M.S and **T.J. Assal**. 2009. A Scalable Geospatial Support Network Model. (Contributed Poster) ESRI International User Conference, San Diego, California.
- Montag, J. and **T.J. Assal**. 2009. Utilizing Dasymetric Modeling to Enhance Understanding of Human Population Distribution and Growth: a Scenario Building Tool for Management and Conservation Planning and Research. Wyoming Conservation Landscape Initiative Science Workshop, Laramie, Wyoming.
- **Assal, T.J.** and M.R. O'Donnell. 2009. The Role of Data Drivers in a Landscape Scale Project. Geospatial '09 (hosted by the U.S. Forest Service and Bureau of Land Management), Salt Lake City, Utah

Honors and Awards

- Invited Guest Lecture – Kent State University – Research and Presentation of Geographic Data Course – 2020
- Invited Panelist – “The Future of Sustainability: Perspectives from Early-Career Scientists,” School of Global Environmental Sustainability 10th Anniversary Symposium, Colorado State University – 2019
- Invited Guest Lecture – Kent State University – Natural Resources Course – 2019
- Fort Collins Science Center (USGS) – Performance Award - 2018
- Invited Guest Lecture – San Francisco State University – Environmental Science Course – 2017
- U.S. Geological Survey – Performance Award - 2016

- Invited Guest Lecture – University of Northern Colorado – Remote Sensing Course – 2016
- U.S. Geological Survey Postdoctoral Fellowship – “Exploiting the deluge from space through scientific synthesis and collaboration” - 2016
- Recipient of Best Paper Award for 2014 – Journal of Map and Geography Libraries – 2015
- U.S. Department of the Interior STAR Award - 2015
- Early career scientist fellowship - Ecological analysis and synthesis, National Center for Ecological Analysis and Synthesis, University of California, Santa Barbara - 2014
- U.S. Department of the Interior STAR Award - 2014
- Sustainability Leadership Fellow, School of Global Environmental Sustainability, Colorado State University – 2013-14
- Graduate Degree Program in Ecology, Colorado State University, Travel Grant - 2013
- USGS Fort Collins Science Center and ASRC Management Services Performance Award - 2010
- Invited Guest Speaker – Colorado State University Graduate Seminar in Ecological Careers - 2010
- Nominated for Master Online Instructor (Front Range Community College) – 2007
- University of Wyoming, Graduate School, Travel Grant - 2001
- Outstanding General Biology Teaching Assistant (University of Wyoming) - 2000-01
- Cafritz Foundation - Awarded grant for the Washington, DC tree planting project (Trees for GW, founder) - 1999

Professional Service & Outreach

- Manuscript Peer Review
Annals of Forest Science, Arid Land Research and Management, Canadian Journal of Forest Research, Ecological Applications, Ecosphere, Forests, Forest Ecology and Management, Frontiers in Ecology and Evolution, IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, International Journal of Geo-Information, International Journal of Remote Sensing, Journal of Biogeography, Journal of Geophysical Research – Biogeosciences, Journal of Maps, Remote Sensing, Remote Sensing Letters, Remote Sensing of Environment, Science of the Total Environment, Transactions in GIS
- University Service
Graduate Studies Committee, Kent State University, Dept. of Geography - 2019-
Faculty Advisory Committee, Kent State University, Dept. of Geography - 2020-
- Student Advisement
Ph.D. Committees Served On: Amanda Carlson (Ecology, Colorado State, 2019)
Masters Committees Served On: Michelle Escalambre (Geography, Kent State, 2020), Ariana Porter (Ecology, Colorado State, 2018)
Undergraduate Honors Thesis Committees Served On: Morgan Hirsh (Biology, Kent State, 2020)
Current Advisees: Mainul Islam (MS)
Current Committees: Ph.D.: Bharat Chaturvedi, Zhuo Chen, Amber Hill, Xin Hong, Tony Miller (Biology), Anthony Mirando, Harlee Rush (Biology) Anna Solberg, Tom Veldman, Ortis Yankey; MS: Jessica Reese
- Technology Workshop Series – Kent State University Library - Introduction to R - 2020
- Mogadore High School Outreach in Geography – Environmental Monitoring from Space - 2020
- Reviewer – Beck Award for Graduate Research – Kent State University - 2020
- GIS Day – Kent State University – Map a Map in R Demo - 2019
- Sustainability Leadership Fellowship Training - School of Global and Environmental Sustainability – Colorado State University – 2017

- Conference Judge – Ecol. Society of America, Assoc. of American Geographer, The Wildlife Society, Front Range Student Ecology Symposium - 2016-2019; Wyoming State Science Fair – 2000-02
- Review panel – Sustainability Leadership Fellowship – School of Global and Environmental Sustainability – Colorado State University – 2016, 2017
- Session Organizer - The Wyoming Chapter of the Wildlife Society & The Wyoming Landscape Conservation Initiative 2015 Joint Conference
- Science Advisory Team - Wyoming Landscape Conservation Initiative – 2010-16
- Session Organizer – The 3rd Wyoming Landscape Conservation Initiative Science Conference – 2012
- Planning Committee - Front Range Student Ecology Symposium - 2011
- Data and Information Management Team – Wyoming Landscape Conservation Initiative – 2008-10
- Catholic Relief Services (provide geospatial products for agriculture team in a developing country) - 2010