

Jeffrey S. Evans

The Nature Conservancy
Senior Landscape Ecologist
Conservation Lands, Global Science Team
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GOALS

To bring methodology and rigor from diverse fields such as landscape ecology, spatial statistics, applied mathematics and remote sensing to address practical conservation questions.

SKILLS AND STATISTICS

Landscape ecology, spatial statistics, passive (spectral) and active (lidar & radar) remote sensing, multi-scale techniques, species habitat and niche modeling, Bayesian methods, landscape genetics, spatial data analysis, geostatistics and spatial simulation, climate change, nonparametric statistics, and gradient modeling. R programmer and package developer, high competency with ArcGIS, QGIS, ERDAS and ENVI/IDL. Research Statistics - H-Index:22, i10-Index: 30, ResearchGate RG score: 32.86 (90th percentile), StackExchange score: 9862 (98th percentile).

PROFESSIONAL EXPERIENCE

SENIOR LANDSCAPE ECOLOGIST, The Nature Conservancy, Central Science. Fort Collins, CO (2008-Current)

AFFILIATE FACULTY, Zoology and Physiology - University of Wyoming, Laramie, WY (2011-Current)

RESEARCH ECOLOGIST, USDA Forest Service, Rocky Mountain Research Station. Moscow, ID (1999-2008)

ASSOCIATE PROFESSOR, College of Natural Resources - University of Idaho, Moscow, ID (2001-2008)

ECOLOGIST, USDA Forest Service, Plumas National Forest. Quincy, CA. (1994-1999)

RESEARCH ASSOCIATE, California Academy of Sciences, Ornithology and Mammalogy, San Francisco, CA. (1989-1994).

EDUCATION

Ph.D. 1994 Ecology, University of California, Berkeley. Berkeley, CA.

B.S. 1989 Ecology and Statistics, University of California, San Diego, La Jolla, CA.

PUBLICATIONS

Submitted, in review or in preparation

Doherty K.E., J.S. Evans, P.S. Coates, B.C. Fedy (in review) Importance of regional variation in conservation planning and defining thresholds for a declining species: A range-wide example of the Greater Sage-grouse. *Ecosphere*

Evans, J.S., J.M. Kiesecker, J. Fargione, K. Doherty, K. Foresman, D. Naugle, N. Nibbelink, N. Niemuth (in prep) Relationships Between Species Occurrence and Human-induced Disturbance. *Nature*

Evans, J.S. (in review) Modeling Pseudo-Absence using Support Vectors. *Ecological Modeling*

Evans, J.S., M. Heiner, J.M. Kiesecker, K. Sochi (in prep) Using Imputation Analysis to Identify Offsets in Mitigation Planning. Target journal: *Ecological Modeling*

Evans J.S., J. Oakleaf J, S.A. Cushman, D. Theobald (in prep) A GIS Statistical Toolbox for Surface Gradient and Geomorphometric Modeling. *Ecography*

Evans, J.S. and M.A. Murphy (in review) GeNetIt: An R package for spatial graph theoretical genetic connectivity modeling. *Methods in Ecology and Evolution*.

- Fekety, P. A., M. J. Falkowski, A. T. Hudak, T. B. Jain, and J. S. Evans (submitted) Ecoregion-level imputation of forest biomass and composition using disjunct LiDAR collections. *Canadian Journal of Forest Research*
- Kennedy, C.M., P.L. Hawthorne, D.A. Miteva, L. Baumgarten, K Sochi, M. Matsumoto, J.S. Evans, M. Viera, P. Ferreira, et al., (in review) Optimizing Land Use Decision-making to Brazilian Agriculture Profits, Biodiversity and Ecosystem Services. *Proceedings of the National Academy of Sciences*
- MacKenzie D.L., & J.S. Evans (in prep) A Spatial-Temporal Bayesian model of Sage Grouse lekking trends. *Ecological Modelling*.
- Murphy M.A., J.S. Evans, C. Peterson, A. Storfer (in review) Modeling niche space of breeding habitat for two anurans in Yellowstone National Park. *Ecology*
- Murphy, M.A., W.C. Funk, E. Muths, J.S. Evans (Submitted) A landscape genetics approach for science-based conservation planning along the Front Range, Colorado. *Conservation Genetics*.
- Schwalm, D.L., M.A. Murphy, J.S. Evans, L.P. Waits, W.B. Ballard (Submitted) Multiple factors influence gene flow and functional connectivity in short and mixed grass prairies of the Great Plains: a swift fox case study. *Ecological Applications*.
- Smith, J.T., J.S. Evans, S. Baruch-Mordo, J.M. Kiesecker, D.E. Naugle (in review) Reducing cropland conversion risk to sage-grouse through strategic conservation of working rangelands. *Biological Conservation*

Published peer-reviewed manuscripts, books and reports

- Griscom, B.W., P.W. Ellis, A. Baccini, D. Matrhinus, J.S. Evans, L. Hovani (2016) Synthesizing global datasets for jurisdictional forest carbon accounting in Berau, Indonesia. *PLoS One*. DOI: 10.1371/journal.pone.0146357
- Doherty K.E., J.S. Evans, J. Walker, J.H. Devries, D.W. Howerter (2015) Building the Foundation for International Conservation Planning for Breeding Ducks across the U.S. and Canadian Border. *PLoS ONE* 10(2): e0116735. doi:10.1371/journal.pone.0116735
- Dunscumb, J.K., J.S. Evans, J.M. Strager, M.P. Strager, J.M. Kiesecker (2015) Assessing Future Energy Development across the Appalachian Landscape Conservation Cooperative. Appalachian Landscape Conservation Cooperative technical Report #2012-02.
- Evans, J.S., & M.A. Murphy (2015). GeNetIt; An R package for Graph-theoretical Spatial Genetic Gravity Models. R package version 0.1-0. <http://CRAN.R-project.org/package=GeNetIt>
- Evans, J.S., S.R. Schill, G.T. Raber (2015) A Systematic Framework for Spatial Conservation Planning and Ecological Priority Design in St. Lucia, Eastern Caribbean. Chapter 26 in *Central American Biodiversity : Conservation, Ecology and a Sustainable Future*. F. Huettman (eds). Springer, NY.
- Evans, J.S. (2015) spatialEco: An R package for spatial analysis and modeling. R package version 0.1-1. <http://cran.r-project.org/package=spatialEco>
- Evans, J.S., C. Pedraza, T. Walschburger, J.C. Gonzalez, J.M. Kiesecker (2015) A Shell-TNC Development by Design Project for Implementation of the Mitigation Hierarchy in Colombia's Magdalena River Basin to Enable Shell to Manage Impacts from both Conventional and Unconventional Oil and Gas Development (Phase I Critical Habitat Analysis). The Nature Conservancy, Technical report.
- Gabrielsen, C.G., M.A. Murphy, J.S. Evans (accepted) Using Probabilistic, Multiscale Approaches to Identify Spatial and Temporal Wetland Gradients. *Remote Sensing of the Environment*.
- Lipsey, M.K., K.E. Doherty, D.E. Naugle, S. Fields, J.S. Evans, S.K. Davis and N. Koper (2015) One step ahead of the plow: Using cropland conversion risk to guide grassland songbird conservation. *Biological Conservation*. 191:739–749
- Strager, M.P., J.M. Strager, A.E. Maxwell, J.S. Evans, J. Dunscumb, B. Kreps (2015) Combining a Spatial Model and Demand Forecasts to Map Future Surface Coal Mining in Appalachia. *PLoS ONE*
- Evans, J.S. and M.A. Murphy (2014) rfUtilities: An R package for model selection and validation of Random Forests. R package version 1.0-1. <http://CRAN.R-project.org/package=rfUtilities>
- Evans, J.S., J.M. Kiesecker (2014) Shale Gas, Wind and Water: Assessing the Potential Cumulative Impacts of Energy Development on Ecosystem Services within the Marcellus Play. *PLoS ONE* 9(2): e89210. doi:10.1371/journal.pone.0089210
- Vogeler, J.C., A.T. Hudak, L.A. Vierling, J.S. Evans, P. Green and K.T. Vierling (2014) Terrain and vegetation structural influences on local avian species richness in two mixed-conifer Forests. *Remote Sensing of Environment*. 147:13-22

- Baruch-Mordo, S., J.S. Evans, J. Severson, J. D. Naugle, J. Kiesecker, J. Maestas, and M.J. Falkowski (2013) Saving sage-grouse from the trees: A proactive solution to reducing a key threat to a candidate species *Biological Conservation* 167:233-241
- Murphy, M.A., J.S. Evans, C.G. Gabrielsen (2013) Wetland Hydroperiod and Climate Change. Report to the Plains and Prairie Pothole Landscape Conservation Cooperative.
- Poznanovic, A.J., M.J. Falkowski, A.L. Maclean, and J.S. Evans (2014) An Accuracy Assessment of Tree Detection Algorithms in Juniper Woodlands. *Photogrammetric Engineering & Remote Sensing* 80(5):627–637
- Copeland, H.E., A. Pocewicz, D.E. Naugle, T. Griffiths, D. Keinath, J.S. Evans, J. Platt (2013) Measuring the effectiveness of conservation: a novel framework to quantify the benefits of sage-grouse conservation policy and easements in Wyoming. *PLoS One* 8(6):e67261
- Kiesecker, J., K. Sochi, M. Heiner, B. McKenney, J.S. Evans, and H. Copeland. (2013) Development by Design: Using a revisionist history to guide a sustainable future. In: Levin S.A. (ed.) *Encyclopedia of Biodiversity*, second edition, pp. 495-507. Waltham, MA: Academic Press.
- Martinuzzi, S., W.A. Gould, L.A. Verling, A.T. Hudak, R.F. Nelson, J.S. Evans (2012) Quantifying Tropical Dry Forest Type and Succession: Substantial Improvement with LiDAR. *Biotropica* 10.1111/j.1744-7429.2012.00904.x
- DiBari, J., A. Pocewicz, J.S. Evans, and J. Gage (2012) An exploration of the spatial relationships between conservation easements and residential development in western Montana. *Landscape and Urban Planning*
- Evans J.S., M.A. Murphy, Z.A. Holden, S.A. Cushman (2011). Modeling species distribution and change using Random Forests in *Predictive species and habitat modeling in landscape ecology: concepts and applications*. eds Drew CA, YF Wiersma, F Huettmann. Springer, NY
- Heiner, M., G. Davaa, J.M. Kiesecker, B. McKenney, J.S. Evans, T. Enkhtsetseg, Z. Dash, U. Vanchindorj, O. Baast, S. Dolgorjav, G. Radnaabazar, E. Donchinbuu, O. Lhamjav, S. Gongor, E. Girvetz and R. McDonald (2011) Identifying Conservation Priorities in the Face of Future Development: Applying Development by Design in the Grasslands of Mongolia. The Nature Conservancy, Technical report.
- Kiesecker, J.M., J.S. Evans, J. Fargione, K. Doherty, K. Foresman, D. Naugle, N. Nibbelink, N. Niemuth (2011) A Win-Win for Wind and Wildlife: A Vision for Facilitating Sustainable Development. *PLoS-One* 10.1371/journal.pone.0017566
- Murphy, M.A., J.S. Evans (2011) Genetic Patterns as a Function of Landscape Process: Application of Neutral Genetic Markers for Predictive Modeling in Landscape Ecology in *Predictive species and habitat modeling in landscape ecology: concepts and applications*. eds Drew CA, YF Wiersma, F Huettmann. Springer, NY
- Evans, J.S., & Z.A. Holden (2010) Classification of Landsat-derived Burn Severity Using Local Spatial Autocorrelation and Fuzzy C-Means Clustering. *International Journal of Wildland Fire* 19:1-8.
- Cushman, S.A., J.S. Evans, K. McGarigal, J.M. Kiesecker (2010). Toward Gleasonian Landscape Ecology: From Communities to Species, From Patches to Pixels. Res. Pap. RMRS-RP-84. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 12 p.
- Cushman, S.A, K. McGarigal, J.S. Evans. (2010). Landscape Ecology: Past, Present and Future. Chapter 4 in S.A. Cushman and F. Huettman (eds). *Spatial Complexity, Informatics and Animal Conservation*, Springer.
- Cushman, S.A, K. McGarigal, K. Gutzwiller and J.S. Evans. (2010). The gradient paradigm: A conceptual and analytical framework for landscape ecology. Chapter 5 in S.A. Cushman and F. Huettman (eds). *Spatial Complexity, Informatics and Wildlife Conservation*, Springer, New York.
- Doherty, K.E., J.D. Tack, J.S. Evans, D.E. Naugle (2010) Mapping breeding densities of greater sage-grouse: A tool for range-wide conservation planning. Bureau of Land Management. Report Number: L10PG00911.
- Doherty, K.E., D.E. Naugle, and J.S. Evans (2010) A Currency for Offsetting Energy Development Impacts: Horse-Trading Sage-Grouse on the Open Market. *PLoS One* 5(4):e10339
- Hegel T., S.A. Cushman, F. Huettmann, and J.S. Evans (2010) Current State of the Art for Statistical Modeling of Species Distributions. Chapter 16 in *Spatial Complexity, Informatics and Wildlife Conservation* eds. F Huettmann and S.A. Cushman. pp. 273-311. Springer, New York.
- Murphy M, J.S. Evans, and A. Storfer (2010) Quantifying *Bufo boreas* connectivity in Yellowstone National Park with landscape genetics. *Ecology* 91:252-261
- Sochi, K., J.S. Evans, J.M. Kiesecker (2010) Conservation in the Wyoming Basins Ecoregion: Planning Today by Assessing Future Scenarios. *GAP Analysis Bulletin*. 17:23-25.

- Evans J.S., A.T. Hudak, R. Faux, A.M.S. Smith (2009) Discrete Return Lidar in Natural Resources: Recommendations for Project Planning, Data Processing, and Deliverables. *Remote Sensing* 1(4):776-794
- Evans, J.S. and S.A. Cushman (2009) Gradient Modeling of Conifer Species Using Random Forest. *Landscape Ecology* 5:673-683.
- Falkowski, M.J., J.S. Evans, S. Martinuzzi, P.E. Gessler, and A.T. Hudak. (2009) Characterizing forest succession with lidar data: An evaluation for the Inland Northwest, USA. *Remote Sensing of Environment* 113:946-956.
- Holden, Z.A., P. Morgan, and J.S. Evans (2009) A predictive model of burn severity based on 20-year satellite-inferred burn severity data in a large southwestern US wilderness area. *Forest Ecology and Management* 258(11):2399-2406
- Hudak A.T., J.S. Evans, A.M.S. Smith (2009) LiDAR Utility for Natural Resource Managers. *Remote Sensing* 1(4):934-95
- Martinuzzi, S., L.A. Vierling, W. Gould, M.J. Falkowski, J.S. Evans, A.T. Hudak, and K.T. Vierling (2009) Mapping snags and understory shrubs for a lidar-based assessment of wildlife suitability. *Remote Sensing of Environment* 113(12):2533-2546
- Smith, A.M.S., M.J. Falkowski, A.T. Hudak, J.S. Evans, A.P. Robinson (2009) A cross-comparison of field, spectral, and lidar estimates of forest canopy cover. *Canadian Journal of Remote Sensing* 35(5):447-459
- Falkowski, M.J., A.M.S. Smith, P.E. Gessler, A.T. Hudak, L.A. Vierling and J.S. Evans. (2008). The influence of conifer forest canopy cover on the accuracy of two individual tree measurement algorithms using lidar data. *Canadian Journal of Remote Sensing* 34(2):338-350.
- Falkowski, M.J., A.M.S. Smith, P.E. Gessler, A.T. Hudak, L.A. Vierling and J.S. Evans. (2008). The influence of conifer forest canopy cover on the accuracy of two individual tree measurement algorithms using LiDAR data. *Canadian Journal of Remote Sensing* 34(2):S338-SS350.
- Hudak, A.T., N.L. Crookston, J.S. Evans, D.E. Hall and M.J. Falkowski. (2008). Nearest neighbor imputation modeling of species-level, plot-scale structural attributes from LiDAR data. *Remote Sensing of Environment* 112:2232-2245.
- Hudak, A.T., J.S. Evans, N.L. Crookston, M.J. Falkowski, B. Steigers, R. Taylor, H. Hemingway (2008) Aggregating pixel-level basal area predictions derived from LiDAR data to industrial forest stands in Idaho. In *Third Forest Vegetation Simulator Conference Proceedings*; Havis, Robert N., Crookston, Nicholas L., Comps.; Proceedings RMRS-P-54. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. pp. 133-146.
- Hudak, A.T., J.S. Evans, M.J. Falkowski, N.L. Crookston, P.E. Gessler, P. Morgan and A.M.S. Smith (2008). Predicting plot basal area and tree density in mixed-conifer forest from lidar and Advanced Land Imager (ALI) data. *Proceedings of the 26th Canadian Symposium on Remote Sensing*.
- Jain, T.B., R.T. Graham, J. Snadquist, M. Butler, K. Brockus, D. Frigard, D. Cobb, H. Sup-Han, J. Halbrook, R. Denner, J.S. Evans. (2008). Restoration of Northern Rocky Mountain Moist Forest: Integrating Fuel Treatments from the Site to the Landscape. *Proceedings of the 2007 National Silviculture Workshop*. USDA Forest Service, General Technical Report PNW-GTR-733_5.
- Meddens A. J. H., A. T. Hudak, J. S. Evans, W. A. Gould, and G. González (2008) Characterizing Forest Fragments in Boreal, Temperate, and Tropical Ecosystems *AMBIO* 37(7-8):569-576
- Murphy M.A., J.S. Evans, S.A. Cushman, A. Storfer (2008) Evaluation of a novel approach for representing "populations" as continuous surfaces in landscape genetics *Ecography* 31:685-697
- Smith A.M.S., E.K. Strand, C.M. Steele, D.B. Hann, S.R. Garrity, M.J. Falkowski, J.S. Evans (2008) Production of vegetation spatial-structure maps by per-object analysis of juniper encroachment in multi-temporal aerial photographs. *Canadian Journal Remote Sensing* 34(2):268-285
- Evans, J.S., & A.T. Hudak. (2007). A multiscale curvature algorithm for classifying discrete return lidar in forested environments. *IEEE Transactions on Geoscience and Remote Sensing* 45(4):1029-1038
- Storfer A. M.A. Murphy, J.S. Evans., C. Goldberg, S. Robinson, S. Spear, R. Dezzani, E. Delmelle, L. Vierling, L. Waits (2007) Putting the landscape in landscape genetics *Heredity* 98:128-142
- Hudak, A.T., N.L. Crookston, J.S. Evans, M.J. Falkowski, A.M.S. Smith, P. Gessler and P. Morgan. (2006) Regression modeling and mapping of coniferous forest basal area and tree density from discrete-return lidar and multispectral satellite data. *Canadian Journal of Remote Sensing* 32: 126-138.
- Rehfeldt, G.E., N.L. Crookston, M.V. Warwell, J.S. Evans. (2006). Empirical analysis of plant-climate relationships for the western United States. *International Journal of Plant Science*. 167(6):1123-1150

- Hudak, A.T., N.L. Crookston, J.S. Evans, M.J. Falkowski, A.M.S. Smith, P. Gessler and P. Morgan. (2006) Regression modeling and mapping of coniferous forest basal area and tree density from discrete-return lidar and multispectral satellite data. *Canadian Journal of Remote Sensing* 32: 126-138.
- Hudak, A., P. Robichaud, J.S. Evans, J. Clark, K. Lannom, P. Morgan and C. Stone. (2004) Field validation of Burned Area Reflectance Classification (BARC) products for post fire assessment. UNL Faculty Publications, Paper 220.
- Evans, J.S., and T. Rice. (2003) Scale and Variance in Spatial Models. Proceedings of the 6th annual Forest Service Geospatial Conference. USDA Forest Service Geospatial Service and Technology Center. CD-ROM 10:23-37.
- McDonald, G.I., J.S. Evans., M. Moeur., T. Rice., E. Strand. (2003) Using digital terrain modeling and satellite imagery to map interactions among fire and forest microbes.in Galley, K.E.M., Klinger, R.C., Sugihara, N.G., Miscellaneous publication No. 13, Tall Timbers Research Station, Tallahassee, FL.
- Evans, J.S., T.B. Jain., R.T. Graham. (2000) Using Multiple Spatial Scales to Typify Historic Western White Pine Abundance. Proceedings of the 5nd annual Forest Service Geospatial Conference. USDA Forest Service Geospatial Service and Technology Center. CD-ROM 8.
- Evans J.S., L. Baptista, and S. Bailey. (1998) Modeling the Fragmentation Response of Gradient Gene Flow. *Ecological Modeling*. 72:38-46
- Quincy Library Group. (1997) Resource Advisory Committee, General technical report on implementation of natural resource management plan. Rogue Institute, Misc. publication 42.
- Evans J.S. & L. Baptista. (1996) Spatial Dynamics of Salt Marsh Sparrows; Movements and Impacts in a Gradient Based Gene Flow System. *The American Naturalist* 158:120-135.
- Evans J.S., & R. Mandel. (1994) Spatial Analysis of Policy and Environmental Planning in Interdisciplinary Monitoring. *Rogue Institute*, Misc. publication 47, 1997.
- Evans, J.S., (1994) Demographics and Fragmentation Response of *Melospiza melodia sammualis* in Coastal Salt Marshes, Dissertation, 140 pp, University of California, Berkeley.
- Glade M., J.S. Evans, H. Terhorest. (1992) Evaluation of Radio-tracking by Triangulation with special Reference to *Stirx occidentals* movements in the Oregon Cascade Range. *Living Birds* 9:45-58

SELECTED PRESENTATIONS AND INVITED WORKSHOPS

- Evans, J.S. (2015) Spatial Analysis in R: An introduction to data manipulation, spatial data analysis and statistical modeling. University of Wyoming, Laramie WY. **Invited workshop**.
- Evans, J.S., K.E. Doherty and D.L. MacKenzie (2015) Evaluating spatial-temporal trends and population density of greater sage-grouse. **Invited seminar**, *Environmental Protection Agency*.
- Baruch-Mordo, J.S. Evans (2015) Saving sage-grouse from the trees: A proactive solution to reducing a key threat to a candidate species. **Invited seminar**, *Environmental Protection Agency*.
- Evans, J.S. and J. Kiesecker (2013) Shale Gas, Wind and Water Quality: Assessing Potential Impacts of Energy Development on Drinking Water. *International Association of Landscape Ecology*, Austin, TX, USA.
- Evans, J.S., and F. Hutterman. (2013) Nonparametric and Machine Learning modeling using opensource tools. **Invited workshop**. *International Association of Landscape Ecology*, Austin, TX, USA.
- Evans, J.S., J.M. Kiesecker (2013) Development by Design: Harnessing the Power of Conservation Planning to Evaluate Impacts and Provide Solutions. **Invited seminar**, *Environmental Protection Agency*
- Evans, J.S., J.M. Kiesecker (2013) Assessing the Potential Cumulative Impacts of Energy Development on Ecosystem Services within the Marcellus Play. *University of Wyoming, Progress in Geography Seminar Series*. **Invited Seminar**
- Falkowski, M.J., C.A. Hagen, J.S. Evans (2013). Developing Targeting Tools for Woody Plant Encroachment and Prairie Grouse Conservation. 30th Meeting of the Prairie Grouse Technical Council Crookston, MN. October.
- Maestas J., D. Naugle, S. Baruch-Mordo, J.S. Evans (2013) Saving Sage Grouse From The Trees: Benefits Of Targeted Tree Removal To Declining Birds. Society for Range Management, Oklahoma City, OK, USA.
- Evans J.S., S. Schill and G. Raber (2012) Statistical Methods for Spatial Conservation Planning. **Invited workshop**, Haiti Government. Funding provided by the Rattray Kimura Foundation and US State Department. Port-Au-Prince, Haiti.

- Maestas, J, C.A. Hagen, D. Naugle, J.P. Severson, J.S. Evans, A. Larkins (2012) A Strategic Approach to Tackling Conifer Encroachment and Quantifying Outcomes for Sage-grouse. *USDA-NRCS Sage and Columbian Sharp-tailed Grouse Workshop*. Steamboat Springs, CO. USA.
- Cushman, S.A., J.S. Evans, J.A. Little (2012) Using intensively sampled microclimate data to improve predictions of species distributions in complex terrain. *International Association of Landscape Ecology - U.S. Regional Association*. Newport, RI, USA.
- Evans, J.S. J.M. Kiesecker and J. Fargione (2011) Development by Design: Balancing Wind Energy-Impacts with Biodiversity *International Association of Landscape Ecology*, Portland, OR, USA.
- Dyer, R, M.A. Murphy, H. Wagner, and J.S. Evans (2011) Landscape Genetics. *International Association of Landscape Ecology - U.S. Regional Association*. Portland, OR, USA. **Invited Workshop**
- Murphy, M.A. and J.S. Evans (2011) A landscape genetics approach for science-based conservation planning along the Front Range, Colorado. *International Association of Landscape Ecology*. Portland, OR, USA.
- Evans, J.S. (2011) The Gradient Paradigm: A Conceptual and Analytical Framework for Spatial Modeling. University of Wyoming, Progress in Geography Seminar Series. **Invited Seminar**
- Kiesecker, J.M., J.S. Evans, J. Fargione (2010) Energy by Design: Science-Based Wind Energy Siting and Mitigation. **Invited Symposium, Annual Meeting of the Society for Range Management**. Denver, Colorado, USA.
- Fargione J., J.M. Kiesecker and **J.S. Evans** (2010) Biofuels and Wind Energy: Threats and Opportunities for Conservation. *Green Energy Summit*, Milwaukee Wisconsin, USA
- Kiesecker J.M., M. Heiner, **J.S. Evans**, and B. McKenney (2010) The Conservation/Development Balancing Act: Maintaining Balance with Mitigation. **Invited Symposium, American Cultural and Information Center**. Ulaanbaatar, Mongolia.
- Evans, J.S., (2009) Predictive modeling using Random Forests **Invited workshop, International Association of Landscape Ecology**. Snowbird, UT.
- Evans, J.S. (2009) Lidar Processing for Natural Resource Applications. USFS Region 1, Missoula, MT. **Invited Workshop**
- Evans, J.S. and S.A. Cushman. (2009). Gradient Analysis: A New Paradigm in Vegetation Modeling. *American Geophysical Union*. San Francisco, CA. **Keynote speaker**
- Evans, J.S. and S.A. Cushman. (2008). Gradient Prediction of Vegetation Composition. *International Association of Landscape Ecology*. Madison, WI.
- Evans, J.S., A.T. Hudak, M.J. Falkowski, E. Uebler. (2008). Towards Operational Implementation of Lidar in Natural Resource Management. *Proceedings of the Twelfth Biennial Forest Service Remote Sensing Applications Conference*
- Falkowski, M.J., J.S. Evans, A.T. Hudak.(2008). Classifying Forest Succession with Lidar Data. *Proceedings of the Twelfth Biennial Forest Service Remote Sensing Applications Conference*
- Murphy M.A., J.S. Evans, L. Moriarty, A. Storfer (2008) Quantifying habitat connectivity and niche separation using landscape genetics: two amphibians species in Yellowstone National Park. *The Wildlife Society* Miami, FL.
- Murphy M.A., J.S. Evans, A. Storfer (2008) Quantify ecological process at multiple spatial scales using landscape genetics: *Bufo boreas* connectivity in Yellowstone National Park *SNVB Missoula, MT*
- Evans, J.S., A. Smith, S.A. Cushman, J. Mital, A.T. Hudak. (2007). An Algorithmic Approach to Modeling Old-Growth Using Spectral and Topographic Data. *American Geophysical Union fall meeting, San Francisco, California, Dec 13-17*.
- Evans, J.S. and A.T. Hudak. (2007). Subsampling Approach to Aggregating LiDAR-Derived Forest Structure Predictions to the Stand Level. *International Association of Landscape Ecology*, Tucson, AZ
- Murphy M, J.S., Evans, A. Storfer. (2007). Boreal toad (*Bufo boreas boreas*) population connectivity in Yellowstone National Park: quantifying matrix resistance and model uncertainty using landscape genetics. *International Association of Landscape Ecology*, Tucson, AZ
- Meddens, A.J.H., A.T. Hudak, J.S. Evans, W.A. Gould, G. González. (2007). Imputation of canopy and surface fuel attributes from LiDAR and Landsat ETM+ imagery. *International Association of Landscape Ecology*. Finland.
- Evans, J.S. (2006). Introduction to Lidar processing and basic modeling. **Invited workshop, United States Geological Survey, America View**. Laramie Wy.
- Evans, J.S., A.T. Hudak. (2006). Subsampling Relationships in Aggregating LiDAR-Derived Forest Structure Predictions to the Stand Level. *Proceedings of the Eleventh Biennial Forest Service Remote Sensing Applications Conference*

- Evans, J.S. and A.T. Hudak. (2006). Quantifying Three-Dimensional Canopy Structure in Conifer Forests using Discrete Return LiDAR. *Society for Conservation Biology* San Jose, CA
- Evans, J.S., and A.T. Hudak. (2006). Predicting Forest Structure Using Discrete Return Lidar. *Foresters Forum*, Coeur D'Alene, ID.
- Murphy M, J.S., Evans, A. Storfer. (2006). Landscape genetics with continuous "populations": evaluation of a novel spatial analysis technique for modeling genetic patterns. *The Wildlife Society* Anchorage, AK
Invited Speaker
- Murphy M, J.S., Evans, C. Peterson, A. Storfer. (2006) Where can I go to find amphibians? Explaining amphibian occurrence in Yellowstone National Park using topographically derived landscape variables *Society for Conservation Biology* San Jose, CA
- Evans, J.S. and A.T. Hudak. (2005). Subsampling Approach to Aggregating LiDAR-Derived Forest Structure Predictions to the Forest Stand Level. *American Geophysical Union fall meeting*, San Francisco, California, Dec 13-17.
- Evans, J.S., and A.T. Hudak. (2005). Using LiDAR to quantify vertical structure of canopy. *International Association of Landscape Ecology - U.S. Regional Association*, Syracuse, New York, March 12-16.
- Murphy M, J.S., Evans, A. Storfer (2005). Landscape genetics: evaluation of a spatial analysis technique for modeling genetic patterns. *Palouse Behavior, Ecology, and Evolution Research Symposium* Moscow, ID. **Best presentation award**
- Hudak, A.T., **J.S. Evans**, M.J. Falkowski, N.L. Crookston, P.E. Gessler, P. Morgan and A.M.S. Smith. (2005). Predicting plot basal area and tree density in mixed-conifer forest from lidar and Advanced Land Imager (ALI) data. *26th Canadian Symposium on Remote Sensing*, Wolfville, Nova Scotia, Canada, June 14-16.
- Murphy, M.A., and J.S. Evans. (2005) Implementing Landscape Genetics; Evaluation of a Novel Spatial Analysis Technique for Modeling Genetic Patterns. *International Association of Landscape Ecology - U.S. Regional Association*, Syracuse, New York, March 12-16.
- Evans J.S. (2004). Introduction to GPS for Scientific Applications. *USFS-Rocky Mountain Research Station and University of Idaho*. **Invited seminar**.
- Evans. J.S. (2004) Introduction to Lidar Processing and Analysis. *United States Geological Survey, America View*. Laramie Wy. **Invited Workshop**.
- Evans, J.S. (2004). Spatial Data Analysis: Statistical Models in Quantitative Landscape Ecology. *College of Natural Resources, University of Idaho*. **Short course**.
- Evans, J.S., and A.T. Hudak. (2004). Integrating Multiscale Analysis and Biophysical Modeling to Optimize Relationships in Spatial Models. *18th Annual Meeting of Society for Conservation Biology*, Columbia University, New York, New York, 30 Jul – 2 to Aug 2004. Session Moderator.
- Murphy, M.A., and J.S. Evans. (2004) Landscape Genetics; Simulating Multi-locus Genetic Data to Assess a Novel Spatial Analysis Technique for Testing Spatial Patterns. *18th Annual Meeting of Society for Conservation Biology*, Columbia University, New York, New York, 30 Jul – 2 Aug. **Best Student Presentation award**.

MENTORING

Charlotte Gabrielsen, University of Wyoming, Ph.D. Advisor, Abdullahi Hussein Ali - University of Wyoming, Ph.D. Graduate Committee, J. Hart - University of Wyoming, Ph.D. Graduate Committee. M. Falkowski - University of Idaho, Ph.D. Graduate Committee, H. Sip Han - University of Idaho, M.S. Graduate Committee, J. Jang - University of Idaho, Ph.D. Graduate Committee, S. Martinuzzi - University of Idaho, Ph.D. Graduate Committee, J. Snadquist - University of Idaho, M.S. Graduate Committee, A. Guseappi – Washington State University, M.S. Graduate Committee, C. Fuller - University of Idaho, Undergraduate Honors Thesis Committee, A. Davidson, USFS-RMRS Intern., H. Scott McDonald, USFS-RMRS Intern

SELECTED GRANTS AND AWARDS

USFWS and WAFWA (\$300,000), USDA, NRCS Sage Grouse Initiative (\$200,000), USDI USFWS APP-LCC (\$150,000), USDI USFWS PPR-LCC (\$130,000), USDA Natural Resources Conservation Service (\$100,000), USDA Natural Resources Conservation Service (\$200,000), Robertson Foundation (\$1,500,000), USDI BLM (\$500,000), American Wind Wildlife Institute (\$300,000), U.S. Department of Energy (\$125,000), Colorado State Land Board (\$40,000), USDA Forest Service Region 1 (\$200,000). USDA Joint Fire Sciences (\$100,000). USDA Resource Management Group (\$85,000), USDA Joint Fire Sciences (\$150,000), California Academy of Sciences (\$20,000), National Science Foundation - Graduate research improvement grant (\$10,000), Ford Foundation (\$100,000),
USFS Rocky Mountain Research Station - Certificate of Merit 2000, 2004, 2007 & 2008
USFS Plumas National Forest - Certificate of Merit 1995 & 1997
USFS Pacific North West Research Station-Certificate of Merit 1991

PROFESSIONAL SERVICES

USFWS Science Advisory Committee for the Greater sage grouse (*Centrocercus urophasianus*) listing decision.
Statistical advisor, USFWS Technical Advisory Committee for the Sprague's Pipit (*Anthus spragueii*) listing decision.
Reviewer: Nature, Ecology, PNAS, Landscape Ecology, Ecography, Forest Science, Remote Sensing of Environment, Canadian Journal of Remote Sensing, Native Plants Journal, Ecological Modeling, Ecological Applications, Canadian Journal of Forest Science, Forests, Trends in Plant Science, Remote Sensing, Journal of Applied Statistics, IEEE Transaction in Geosciences and Remote Sensing, Journal of Statistical Software, Biological Conservation, PLoS One, Journal of Spatial Statistics, Applied Statistics.
Remote Characterization of Vegetation Structure (2008) *American Geophysical Union fall meeting*, San Francisco, CA, 2008. **Convener and Chair**
Remote Sensing for Vegetation Structure (2007) *Annual Landscape Ecology Meeting*, Flagstaff, AZ. **Convener and Chair**
Spatial Modeling for Conservation Applications (2004) *Annual Conservation Biology Meeting*, New York City, NY. **Convener and Chair**

OUTREACH AND CONSERVATION

Rocky Mountain Belgian Tervuren Club, Vice President (2015-current)
Palouse Folklore Society Moscow, ID,
Quincy Library Group. Quincy, CA.,
Applegate Community Forest Management Initiative. Ashland, OR,
Sierra Planning Organization. Tahoe, CA.,
Coordinated Resource Management Group (CRM), Greenville, CA.,
Northern California GIS Lead Partnership Group, Tahoe, CA.
Plumas Audubon Society. Quincy, CA.

PROFESSIONAL AND HONORARY SOCIETIES

International Association of Landscape Ecology, International Society for Conservation Biology, Ecological Society of America, American Geophysical Union, American Union of Wetland Scientist, American Ornithologist Union, Spatial Statistics Society, American Statistical Association, Royal Statistical Society.