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- Experience:** COLORADO STATE UNIVERSITY, Fort Collins, CO
- Professor 2018-
    - Department of Fish, Wildlife, and Conservation Biology
    - Department of Statistics
  - Associate Professor 2013-2018
    - Department of Fish, Wildlife, and Conservation Biology
    - Department of Statistics
  - Assistant Professor 2010-2013
    - Department of Fish, Wildlife, and Conservation Biology
    - Department of Statistics
  - Faculty Affiliate, Graduate Degree Program in Ecology 2010-
- U.S. GEOLOGICAL SURVEY, Fort Collins, CO 2010-
- Assistant Unit Leader
    - Colorado Cooperative Fish and Wildlife Research Unit
- UTAH STATE UNIVERSITY, Logan, UT 2006-2010
- Assistant Professor of Statistics, Department of Mathematics and Statistics
  - Adjunct Faculty, Department of Wildland Resources
  - Faculty Associate, Ecology Center
- Education:** UNIVERSITY OF MISSOURI, Columbia, MO 2006
- Ph.D. Statistics Advisor: Christopher K. Wikle
  - Dissertation Topic: Hierarchical spatio-temporal models for ecological processes
- UNIVERSITY OF MISSOURI, Columbia, MO 2001
- M.S. Forest Ecology Advisor: David R. Larsen
  - Thesis Topic: Modeling the spatial distribution of ground flora
- KANSAS STATE UNIVERSITY, Manhattan, KS 1999
- B.S. Natural Resource Management Advisor: Mark Morgan
  - Minor in Wildlife Biology

## Books:

Hooten, M.B. and T.J. Hefley. (2019). Bringing Bayesian Models to Life. Chapman & Hall/CRC.

Hooten, M.B., D.S. Johnson, B.T. McClintock, and J. Morales. (2017). Animal Movement:

Statistical Models for Telemetry Data. Chapman & Hall/CRC.

Hobbs, N.T. and M.B. Hooten. (2015). Bayesian Models: A Statistical Primer for Ecologists. Princeton University Press.

**Selected Publications:** (students and post-docs underlined)

Williams, P.J., W.L. Kendall, and M.B. Hooten. (In Press). Selecting ecological models using multi-objective optimization. *Ecological Modelling*.

Hooten, M.B., J.M. Ver Hoef, and E.M. Hanks. (In Press). Simultaneous autoregressive (SAR) model. *Wiley StatsRef: Statistics Reference Online*.

Nolan, C., J. Tipton, R.K. Booth, M.B. Hooten, and S.T. Jackson. (In Press). Comparing and improving methods for reconstructing peatland water table depth from testate amoebae. *The Holocene*.

Scharf, H.R., M.B. Hooten, R.R. Wilson, G.M. Durner, T.C. Atwood. (In Press). Accounting for phenology in the analysis of animal movement. *Biometrics*.

Christianson, K.R., B.M. Johnson, M.B. Hooten, and J.J. Roberts. (2019). Estimating lake-climate responses from sparse data: an application to high elevation lakes. *Limnology and Oceanography*, **64**: 1371-1385.

Peterson, E.E., E.M. Hanks, M.B. Hooten, J.M. Ver Hoef, and M.-J. Fortin. (2019). Spatially structured statistical network models for landscape genetics. *Ecological Monographs*, **89**: e01355.

Williams, P.J., M.B. Hooten, G.G. Esslinger, J.N. Womble, J. Bodkin, and M.R. Bower. (In Press). The rise of an apex predator following deglaciation. *Diversity and Distributions*.

Ketz, A.C., T.L. Johnson, M.B. Hooten, and N.T. Hobbs. (2019). A hierarchical Bayesian approach for handling missing classification data. *Ecology and Evolution*, **9**: 3130-3140.

Hooten, M.B., H.J. Scharf, and J.M. Morales. (2019). Running on empty: Recharge dynamics from animal movement data. *Ecology Letters*, **22**: 377-389.

Dietze, M., A. Fox, L. Beck-Johnson, J.L. Betancourt, M.B. Hooten, C. Jarnevitch, T. Kiett, M. Kenney, C. Laney, L. Larsen, H. Loescher, C. Lunch, B. Pijanowski, J. Randerson, E. Reid, A. Tredennick, R. Vargas, K. Weathers, and E. White. (2018). Iterative near-term ecological forecasting: Needs, opportunities, and challenges. *Proceedings of the National Academy of Sciences*, **115**: 1424-1432

Scharf, H., M.B. Hooten, D.S. Johnson, and J. Durban. (2018). Process convolution approaches for modeling interacting trajectories. *Environmetrics*, **29**: e2487.

Buderman, F.E., M.B. Hooten, M. Alldredge, E.M. Hanks, and J.S. Ivan. (2018). Time-varying predatory behavior is primary predictor of fine-scale movement of wildland-urban cougars. *Movement Ecology*, **6**: 22.

Gerber, B.D., M.B. Hooten, C.P. Peck, M.B. Rice, J.H. Gammonley, A.D. Apa, and A.J. Davis. (2018). Accounting for location uncertainty in azimuthal telemetry data improves ecological inference. *Movement Ecology*, **6**: 14.

Conn, P.B., D.S. Johnson, P.J. Williams, S.R. Melin, and M.B. Hooten. (2018). A guide to Bayesian model checking for ecologists. *Ecological Monographs*, **88**: 526-542.

Hooten, M.B., H.R. Scharf, T.J. Hefley, A. Pearse, and M. Weegman. (2018). Animal movement models for migratory individuals and groups. *Methods in Ecology and Evolution*, **9**: 1692-1705.

Pejchar, L., T. Gallo, M.B. Hooten, and G. Daily. (2018). Predicting effects of large-scale reforestation on native and exotic birds. *Diversity and Distributions*, **24**: 811-819.

Ver Hoef, J.M., E.M. Hanks, and M.B. Hooten. (2018). On the relationship between conditional (CAR) and simultaneous (SAR) autoregressive models. *Spatial Statistics*, **25**: 68-85.

Ketz, A.C., T.L. Johnson, R.J. Monello, J. Mack, J.L. George, B.R. Kraft, M.A. Wild, M.B. Hooten, and N.T. Hobbs. (2018). Estimating abundance of an open population with an N-mixture model using auxiliary data on animal movements. *Ecological Applications*, **28**: 816-825.

Williams, P.J., M.B. Hooten, J.N. Womble, G.G. Esslinger, and M.R. Bower. (2018). Monitoring dynamic spatio-temporal ecological processes optimally. *Ecology*, **99**: 524-535.

Ver Hoef, J.M., E.E. Peterson, M.B. Hooten, E.M. Hanks, and M-J. Fortin. (2018). Spatial autoregressive models for statistical inference from ecological Data. *Ecological Monographs*, **88**: 36-59.

Itter, M.S., A.O. Finley, M.B. Hooten, P.E. Higuera, J.R. Marlon, R. Kelly, and J.S. McLachlan. (2018). A model-based approach to wildland fire reconstruction using sediment charcoal records. *Environmetrics*, **28**: e2450.

Buderman, F.M., M.B. Hooten, J.S. Ivan, and T.M. Shenk. (2018). Large-scale movement behavior in a reintroduced predator population. *Ecography*, **41**: 126-139.

Williams, P.J., M.B. Hooten, J.N. Womble, and M.R. Bower. (2017). Estimating occupancy and abundance using aerial images with imperfect detection. *Methods in Ecology and Evolution*, **8**: 1679-1689.

Hefley, T.J., B.M. Brost, and M.B. Hooten. (2017). Bias correction of bounded location errors in presence-only data. *Methods in Ecology and Evolution*, **8**: 1566-1573.

Steger, C., B. Butt, and M.B. Hooten. (2017). Safari Science: Assessing the reliability of citizen science data for wildlife surveys. *Journal of Applied Ecology*, **54**: 2053-2062.

Hooten, M.B., R. King, and R. Langrock. (2017). Guest editor's introduction to the special issue on "Animal Movement Modeling." *Journal of Agricultural, Biological, and Environmental Statistics*, **22**: 224-231.

Hanks, E.M., D.S. Johnson, and M.B. Hooten. (2017). Reflected stochastic differential equation models for constrained animal movement. *Journal of Agricultural, Biological, and Environmental Statistics*, **22**: 353-372.

Scharf, H., M.B. Hooten, and D.S. Johnson. (2017). Imputation approaches for animal movement modeling. *Journal of Agricultural, Biological, and Environmental Statistics*, **22**: 335-352.

Hefley, T.J., M.B. Hooten, R.E. Russell, D.P. Walsh, and J. Powell. (2017). When mechanism matters: forecasting the spread of disease using ecological diffusion. *Ecology Letters*, **20**: 640-650.

Pepin, K.M., S.L. Kay, B. Golas, S.S. Shriner, A.T. Gilbert, R.S. Miller, A.L. Graham, S. Riley, P.C. Cross, M.D. Samuel, M.B. Hooten, J.A. Hoeting, J.O. Lloyd-Smith, C.T. Webb, and M.B. Buhnerkempe. (2017). Inferring infection hazard in wildlife populations by linking data across individual and population scales. *Ecology Letters*, **20**: 275–292.

Roberts, J.J., K.D. Fausch, M.B. Hooten, and D.P. Peterson. (2017). Nonnative trout invasions combined with climate change threaten persistence of isolated cutthroat trout populations in the southern Rocky Mountains. *North American Journal of Fisheries Management*, **37**: 314-325.

Meredith, C.S., P. Budy, M.B. Hooten, and M.O. Prates. (2017). Assessing abiotic conditions influencing the longitudinal distribution of exotic brown trout (*Salmo trutta*) in a mountain stream: a spatially-explicit modeling approach. *Biological Invasions*, **19**: 503-519.

Davis, A.J., M.B. Hooten, R.S. Miller, M. Farnsworth, J. Lewis, K.M. Moxcey, and K.M. Pepin. (In Press). Inferring invasive species abundance using removal data from management actions. *Ecological Applications*.

Hooten, M.B. and D.S. Johnson. (2017). Basis function models for animal movement. *Journal of the American Statistical Association*, **112**: 578-589.

Tredennick, A.T., M.B. Hooten, and P.B. Adler. (2017). Do we need demographic data to forecast the state of plant populations? *Methods in Ecology and Evolution*, **8**: 541-551.

Hefley, T.J., M.B. Hooten, E.M. Hanks, R.E. Russell, and D.P. Walsh. (2017). Dynamic spatio-temporal models for spatial data. *Spatial Statistics*, **20**: 206-220.

Hefley, T.J., K.M. Broms, B.M. Brost, F.E. Buderman, S.L. Kay, H.R. Scharf, J.R. Tipton, P.J. Williams, and M.B. Hooten. (2017). The basis function approach to modeling autocorrelation in ecological data. *Ecology*, **98**: 632-646.

Williams, P.J., M.B. Hooten, J.N. Womble, G.G. Esslinger, M.R. Bower, and T.J. Hefley. (2017). An integrated data model to estimate spatio-temporal occupancy, abundance, and colonization dynamics. *Ecology*, **98**: 328-336

Small, R.J., B.M. Brost, M.B. Hooten, M. Castellote, and J. Mondragon. (2017). Potential for spatial displacement of Cook Inlet beluga whales by anthropogenic noise in critical habitat. *Endangered Species Research*, **32**: 43-57.

Hefley, T.J., M.B. Hooten, E.M. Hanks, R.E. Russell, and D.P. Walsh. (2017). The Bayesian group lasso for confounded spatial data. *Journal of Agricultural, Biological and Environmental Statistics*, **22**: 42-59.

Tipton, J., M.B. Hooten, and S. Goring. (2017). Reconstruction of spatio-temporal temperature from sparse historical records using robust probabilistic principal component regression. *Advances in Statistical Climatology, Meteorology and Oceanography*, **3**: 1-16.

Brost, B.M., M.B. Hooten, and R.J. Small. (2017). Leveraging constraints and biotelemetry data to pinpoint repetitively used spatial features. *Ecology*, **98**: 12-20.

Arab, A., M.B. Hooten, and C.K. Wikle (2017). Hierarchical Spatial Models. *In: Encyclopedia of Geographical Information Science, Second Edition*. Springer.

- Davis, A.J., M.B. Hooten, R.S. Miller, M. Farnsworth, J. Lewis, K.M. Moxcey, and K.M. Pepin. (2016). Inferring invasive species abundance using removal data from management actions. *Ecological Applications*, **26**: 2339–2346.
- Northrup, J.M., C.R. Anderson, M.B. Hooten, and G. Wittemyer. (2016). Movement reveals scale-dependence in habitat selection of a large ungulate. *Ecological Applications*, **26**: 2746-2757.
- Lepak, J.M., M.B. Hooten, C.A. Eagles-Smith, M.A. Lutz, M.T. Tate, J.T. Ackerman, J.J. Willacker Jr., D.C. Evers, J. Davis, C.F. Pritz, J.G. Wiener. (2016). Assessing mercury concentrations in fish across western Canada and the United States: potential health risks to fish and humans. *Science of the Total Environment*, **571**: 342-354.
- Scharf, H.R., M.B. Hooten, B.K. Fosdick, D.S. Johnson, J.M. London, and J.W. Durban. (2016). Dynamic social networks based on movement. *Annals of Applied Statistics*, **10**: 2182-2202. (ASA ENVR Student Paper Award, 2016).
- Tredennick, A.T., M.B. Hooten, C.L. Aldridge, C.G. Homer, A. Kleinhesselink, and P.B. Adler. (2016). Forecasting climate change impacts on plant populations over large spatial extents. *Ecosphere*, **7**: e01525.
- Hefley, T.J., M.B. Hooten, J.M. Drake, R.E. Russell, and D.P. Walsh. (2016). When can the cause of a population decline be determined? *Ecology Letters*, **19**: 1353-1362
- Williams, P.J. and M.B. Hooten. (2016). Combining statistical inference and decisions in ecology. *Ecological Applications*, **26**: 1930-1942.
- Ruiz-Gutierrez, V., M.B. Hooten, and E.H. Campbell Grant. (2016). Uncertainty in biological monitoring: a framework for data collection and analysis to account for multiple sources of sampling bias. *Methods in Ecology and Evolution*, **7**: 900-909.
- Broms, K.M., M.B. Hooten, and R.M. Fitzpatrick. (2016). Model selection and assessment for multi-species occupancy models. *Ecology*, **97**: 194-207.
- Hooten, M.B., F.E. Buderman, B.M. Brost, E.M. Hanks, and J.S. Ivan. (2016). Hierarchical animal movement models for population-level inference. *Environmetrics*, **27**: 322-333.
- Hanks, E.M., M.B. Hooten, S.A. Knick, S.J. Oyler-McCance, J.A. Ficke, T.B. Cross, and M.K. Schwartz. (2016). Latent spatial models and sampling design for landscape genetics. *Annals of Applied Statistics*, **10**: 1041-1062.
- Hefley, T.J. and M.B. Hooten. (2016). Hierarchical species distribution models. *Current Landscape Ecology Reports*: 1-11.
- Wikle, C.K., W.B. Leeds, and M.B. Hooten. (2016). Models for ecological models: Ocean primary productivity. *Chance*, **29** (2): 23.
- Tipton, J., M.B. Hooten, N. Pederson, M. Tingley, and D. Bishop. (2016). Reconstruction of late Holocene climate based on tree growth and mechanistic hierarchical models. *Environmetrics*, **27**: 42-54. (ASA ENVR Student Paper Award, 2015).
- Buderman, F.M., M.B. Hooten, J.S. Ivan, and T.M. Shenk. (2016). A functional model for characterizing long distance movement behavior. *Methods in Ecology and Evolution*, **7**: 264-273.

- Broms, K.M., M.B. Hooten, D.S. Johnson, L.L. Conquest, and R. Altwegg. (2016). Dynamic occupancy models for explicit colonization processes. *Ecology*, **97**: 194-204.
- Raiho, A., M.B. Hooten, S. Bates, and N.T. Hobbs. (2015). Forecasting the effects of fertility control on overabundant ungulates: White-tailed deer in the National Capital region. *PLoS One*, **10**: e0143122.
- Brost, B.M., M.B. Hooten, E.M. Hanks, and R.J. Small. (2015). Animal movement constraints improve resource selection inference in the presence of telemetry error. *Ecology*, **96**: 2590-2597.
- Hobbs, N.T., C. Geremia, J. Treanor, R. Wallen, P.J. White, M.B. Hooten, and J.C. Rhyan. (2015). State-space modeling to support adaptive management of brucellosis in the Yellowstone bison population. *Ecological Monographs*, **85**: 525-556.
- Hefley, T.J. and M.B. Hooten. (2015). On the existence of maximum likelihood estimates for presence-only data. *Methods in Ecology and Evolution*, **6**: 648-655.
- Schmelter, M.L., P. Wilcock, M.B. Hooten, D.K. Stevens. (2015). Multi-fraction Bayesian sediment transport model. *Journal of Marine Science and Engineering*, **3**: 1066-1092.
- Gerber, B.D., W.L. Kendall, M.B. Hooten, J.A. Dubovsky, and R.C. Drewien. (2015). Optimal population prediction of sandhill crane recruitment based on climate-mediated habitat limitations. *Journal of Animal Ecology*, **84**: 1299-1310.
- Ross, B.E., M.B. Hooten, J-M. DeVink, and D.N. Koons. (2015). Combined effects of climate, predation, and density dependence on Greater and Lesser Scaup population dynamics. *Ecological Applications*, **25**: 1606-1617.
- Hanks, E.M., M.B. Hooten, and M. Alldredge. (2015). Continuous-time discrete-space models for animal movement. *Annals of Applied Statistics*, **9**: 145-165.
- Conn, P.B., Johnson, D.S., J.M. Ver Hoef, M.B. Hooten, J.M. London, and P.L. Boveng. (2015). Using spatio-temporal models to estimate animal abundance and infer ecological dynamics from survey counts. *Ecological Monographs*, **85**: 235-252.
- Hanks, E.M., E. Schliep, M.B. Hooten, and J.A. Hoeting. (2015). Restricted spatial regression in practice: Geostatistical models, confounding, and robustness under model misspecification. *Environmetrics*, **26**: 243-254.
- Hooten, M.B. and N.T. Hobbs. (2015). A guide to Bayesian model selection for ecologists. *Ecological Monographs*, **85**: 3-28.
- Wikle, C.K. and M.B. Hooten (2015). Hierarchical agent-based spatio-temporal dynamic models for discrete valued data. Davis, R., S. Holan, R. Lund, and N. Ravishanker (eds). In: Handbook of Discrete-Valued Time Series. Chapman & Hall/CRC.
- Broms, K.M., M.B. Hooten, and R. Fitzpatrick. (2015). Accounting for imperfect detection in Hill numbers for biodiversity studies. *Methods in Ecology and Evolution*, **6**: 99-108.
- Davis, A.J., M.B. Hooten, M.L. Phillips, and P.F. Doherty Jr. (2014). An integrated modeling approach to estimating Gunnison sage-grouse population dynamics: combining index and demographic data. *Ecology and Evolution*, **4**: 4247-4257.

- Odei, J.B., J. Symanzik, and M.B. Hooten. (2014). A Bayesian hierarchical model for forecasting intermountain snow dynamics. *Environmetrics*, **25**: 324-340.
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- Garlick, M.J., J.A. Powell, M.B. Hooten, and L.R. McFarlane. (2014). Homogenization, sex, and differential motility predict spread of chronic wasting disease in mule deer in Southern Utah. *Journal of Mathematical Biology*, **69**: 369-399.
- Hooten, M.B., E.M. Hanks, D.S. Johnson, and M.W. Alldredge. (2014). Temporal variation and scale in movement-based resource selection functions. *Statistical Methodology*, **17**: 82-98.
- Milliff, R.F., J. Fiechter, W.B. Leeds, R. Herbei, C.K. Wikle, M.B. Hooten, A.M. Moore, T.M. Powell, and J.L. Brown. (2013). Uncertainty management in coupled physical-biological lower-trophic level ocean ecosystem models. *Oceanography*, **24**: 98-115.
- Green, A.W., M.B. Hooten, E.H.C. Grant, and L.L. Bailey (2013). Evaluating breeding and metamorph occupancy and vernal pool management effects for wood frogs using a hierarchical model. *Journal of Applied Ecology*. **50**: 1116-1123.
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- Hooten, M.B., M.J. Garlick, and J.A. Powell. (2013). Computationally efficient statistical differential equation modeling using homogenization. *Journal of Agricultural, Biological and Environmental Statistics*, **18**: 405-428.
- Hooten, M.B., E.M. Hanks, D.S. Johnson, and M. Alldredge. (2013). Reconciling resource utilization and resource selection functions. *Journal of Animal Ecology*, **82**: 1146-1154.
- Northrup, J.M., M.B. Hooten, C.R. Anderson, and G. Wittemyer. (2013). Practical guidance on characterizing availability in resource selection functions under a use-availability design. *Ecology*, **94**: 1456-1463.
- Johnson, D.S., P.B. Conn, M.B. Hooten, J. Ray, and B. Pond. (2013). Spatial occupancy models for large data sets. *Ecology*, **94**: 801-808.
- Roberts, J.J., K.D. Fausch, D.P. Peterson, and M.B. Hooten. (2013). Fragmentation and thermal risks from climate change interact to affect persistence of native trout in the Colorado River basin. *Global Change Biology*, **19**: 1381-1398.
- Hanks, E.M. and M.B. Hooten. (2013). Circuit theory and model-based inference for landscape connectivity. *Journal of the American Statistical Association*, **108**: 22-33. (Best Student Paper Award at ENVR – ASA 2012)
- Cruz, S.M., M.B. Hooten, K.P. Huyvaert, C. Proano, D.J. Anderson, J. Fox, and M. Wikelski. (2013). At-sea behavior varies with lunar phase in a nocturnal pelagic seabird, the swallow-tailed gull. *PLoS One*, **8**: e56889.
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hierarchical models with spatio-temporal abundance data. *PLoS One*, **7**: e49395.

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Xiao X., E.P. White, M.B. Hooten, and S.L. Durham. (2011). On the use of log-transformation vs. nonlinear regression for analyzing biological power-laws. *Ecology*, **92**: 1887-1894.

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Wilson, R.R., Blankenship, T.L., Hooten, M.B., and J.A. Shivik. (2010). Prey-mediated avoidance of an intraguild predator by its intraguild prey. *Oecologia*, **164**: 921-929.



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Nippert, J.B., M.B. Hooten, D.R. Sandquist, and J.K. Ward. (2010). A model for predicting El Nino events using tree-ring cellulose  $\delta^{18}O$ . *Journal of Geophysical Research*. **115**: 1-9.

Hooten, M.B., J. Anderson and L. Waller. (2010). Assessing North American influenza dynamics with statistical SIRS models. *Spatial and Spatio-Temporal Epidemiology*. **1**: 177-185.

Hooten, M.B. and C.K. Wikle. (2010). Statistical agent-based models for discrete spatio-temporal systems. *Journal of the American Statistical Association*. **105**: 236-248.

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Hooten, M.B., C.K. Wikle, S. Sheriff, and J. Rushin. (2009). Optimal spatio-temporal hybrid sampling designs for ecological monitoring. *Journal of Vegetation Science*, **20**: 639-649.

Mock, K., C. Rowe, M.B. Hooten, A.J. DeWoody, and V.D. Hipkins. (2008). Clonal dynamics in western North American aspen (*Populus tremuloides*). *Molecular Ecology*. **17**: 4827-4844.

Hooten, M. B. and C.K. Wikle. (2008). A hierarchical Bayesian non-linear spatio-temporal model for the spread of invasive species with application to the Eurasian Collared-Dove. *Environmental and Ecological Statistics*, **15**(1): 59-70. DOI: 10.1007/s10651-007-0040-1.

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He, H.S., D.C. Dey, X. Fan, M.B. Hooten, J. Kabric, C.K. Wikle, and Z. Fan. (2007). Mapping pre-European settlement vegetation using a hierarchical Bayesian model and GIS. *Plant Ecology*, **191**: 85-94.

Hooten, M.B. and C.K. Wikle. (2007). Shifts in the spatio-temporal growth dynamics of shortleaf pine. *Environmental and Ecological Statistics*, **14**(3): 207-227.

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Hooten, M. B., Larsen, D.R., and C.K. Wikle. (2003). Predicting the spatial distribution of ground flora on large domains using a hierarchical Bayesian model. *Landscape Ecology*, **18**: 487-502.

**Awards/  
Honors:**

- Wildlife Publication Award Shortlist for Authored Book 2019  
The Wildlife Society  
Publication: Hooten, M.B., D.S. Johnson, B.T. McClintock, and J.M. Morales. (2017). *Animal Movement: Statistical Models for Telemetry Data*. Chapman and Hall/CRC.
- Superior Performance Award 2018  
U.S. Geological Survey
- Wildlife Publication Award Shortlist for Authored Book 2018  
The Wildlife Society  
Publication: Hooten, M.B., D.S. Johnson, B.T. McClintock, and J.M. Morales. (2017). *Animal Movement: Statistical Models for Telemetry Data*. Chapman and Hall/CRC.
- Superior Performance Award 2017  
U.S. Geological Survey
- ASA Fellow 2017  
American Statistical Association
- President's Invited Lecture 2016  
The International Environmetrics Society Annual Meeting
- Superior Performance Award 2016  
U.S. Geological Survey
- Outstanding Publication of the Year Award 2015  
Colorado State University, Warner College of Natural Resources  
Publication: Hobbs, N.T. and M.B. Hooten (2015). *Bayesian Models: A Statistical Primer for Ecologists*. Princeton University Press.
- Excellence in Science Award, Cooperative Research Units 2015  
U.S. Geological Survey
- Superior Performance Award 2015  
U.S. Geological Survey
- Superior Performance Award 2014  
U.S. Geological Survey
- Young Investigator Award 2014  
American Statistical Association, ENVR Section
- Superior Performance Award 2013  
U.S. Geological Survey
- Superior Performance Award 2012  
U.S. Geological Survey
- Superior Performance Award 2011  
U.S. Geological Survey
- Researcher of the Year Award 2010  
USU-Department of Mathematics and Statistics
- Researcher of the Year Award 2009  
USU-Department of Mathematics and Statistics

**Teaching**

## Experience:

### Workshops and Short Courses

- Animal Movement Modeling Workshop (US-IALE), 1 day 2019
- Statistical Decision Theory (ASA Alaska Chapter Meeting) 2019
- R Workshop (KSU), 1 day 2018
- Animal Movement Modeling Workshop (ISEC), 1 day 2018
- R Workshop (KSU), 1 day 2017
- Spatio-Temporal Statistical Models in Practice (WNAR, anticipated), 1/2 day 2017
- R Workshop for Wildlife Biologists (CSU-CCFWRU), 1 day 2017
- Building Capacity in Bayesian Modeling for Ecologists (NSF), 10 days 2016
- R Workshop for Wildlife Biologists (TWS-CMPS), 1 day 2016
- Bayesian Decision Theory and Model Selection (ISEC), 1 day 2016
- R Workshop (CSU-CCFWRU), 1 day 2015
- Building Capacity in Bayesian Modeling for Ecologists (NSF), 10 days 2015
- Parallel Computing for Ecologists and Evol. Biologists (CSU-CU), 1 day 2015
- Building Capacity in Bayesian Modeling for Ecologists (NSF), 10 days 2014
- R Workshop (CSU-CCFWRU), 1 day 2013
- Building Capacity in Bayesian Modeling for Ecologists (NSF), 10 days 2013
- Spatial Statistics using R Workshop (TWS), 1 day 2012
- R Workshop for Fisheries Biologists (AFS-Western), 1 day 2012
- Bayesian Models for Ecologists (USU - UCFWRU), 5 days 2012
- R Short Course (CSU-CCFWRU), 1 day 2011
- Bayesian Methods for Landscape Ecologists (US-IALE), 1 day 2009

### Colorado State University, Dept. of FWCB, Fort Collins, CO. 2011-

- Hierarchical Models in Ecology (FW 680, Fall 2011; FW/STAT 673, Fall 2013, 2015, 2017)
- Fish, Wildlife, and Conservation Biology Graduate Faculty Seminar (FW 692, Spr. 2016)
- Readings on Bayesian Analysis of Ecological Models and Data (ECOL 592, Fall 2011)
- Independent Study, Wildlife Biology (FW 495, Fall 2014)
- Guest Lectures: STAT 501 (Fall 2011-2018), STAT 192 (Spring 2012-2015), FW 696 (Fall 2018)

### Utah State University, Dept. of Mathematics and Statistics, Logan, UT. 2006-10

- Applied Spatial Statistics (STAT 5410/6410, Fall 2006 - 2010)
- Statistics for Scientists (STAT 3000, Spring 2007, 2009, Fall 2007, 2008)
- Scientific Statistical Modeling: Directed Readings (STAT 6950, Spring 2007)
- Bayesian Statistics (STAT 6740, Spring 2008, 2010)
- Linear Regression and Time-Series (STAT 5100, Fall 2009 - 2010)

### University of Missouri, Statistics Dept., Columbia, MO. 2002-04

#### Graduate Instructor

- Statistical Methods for Agriculture Graduate Students (STAT 207)
- Probability and Statistics for Business Students (STAT 150)

#### Graduate Lecturer

- Data Analysis for Graduate Students in Statistics (STAT 414)

### University of Missouri, Forestry Dept., Columbia, MO. 1999-01

#### Graduate Lecturer

- Biometrics
- Geographic Information Systems
- Photogrammetry
- Remote Sensing

## Post-Doctoral Fellows (Current):

- Henry Scharf, Post-doctoral Fellow 2018-2019

#### Post-Doctoral Fellows (Former):

- Perry Williams, Post-doctoral Fellow 2016-2018
- Brian Gerber, Post-doctoral Fellow 2016-2017
- John Tipton, Post-doctoral Fellow 2016-2017
- Kristin Broms, Post-doctoral Fellow 2013-2016
- Trevor Hefley, Post-doctoral Fellow 2015-2016
- Viviana Ruiz-Gutierrez, Post-doctoral Fellow 2013-2014
- Tabitha Graves, Smith Post-doctoral Fellow 2012-2014

#### Graduate Students (Current):

- Hanna McCaslin (CSU, PhD-Ecology), **Advisor**
- Lucy Lu (CSU, PhD-Statistics), **Advisor**.
- Sierra Pugh (CSU, PhD-Statistics), **Advisor**.
- Clint Leach (CSU, PhD-Biology), Com. Member.
- Kyle Christianson (CSU, PhD-FWCB), Com. Member.
- Toryn Schafer (MU, PhD-Statistics), Com. Member.
- Ghulam Samad (CSU, PhD-Ecology), Com. Member.
- Abigail Fueka (CSU, MS-Wildlife Biology), Com. Member.

#### Graduate Students (Graduated):

- David Clancy (CSU, MS-Statistics), **Advisor**. 2019
- Henry Scharf (CSU, PhD-Statistics), **Advisor**. 2017
- Frances Buderman (CSU, PhD-Wildlife), **Advisor**. 2017
- Brian Brost (CSU, PhD-Ecology), **Advisor**. 2016
- John Tipton (CSU, PhD-Statistics), **Co-Advisor** (w/ Jean Opsomer). 2016
- Perry Williams (CSU, MS-Statistics), **Advisor**. 2015
- Shannon Kay (CSU, MS-Statistics), **Advisor**. 2015
- Alison Cartwright (CSU, MS-Statistics), **Co-Advisor** (w/ Jean Opsomer). 2013
- Ephraim M. Hanks (CSU, PhD-Statistics), **Advisor**. 2013
- Beth Ross (USU, PhD-Wildland Resources), **Co-Advisor** (w/ Dave Koons). 2013
- Martha Garlick (USU, PhD-App. Math), **Co-Advisor** (w/ Jim Powell). 2012
- Beth Ross (USU, MS-Statistics), **Advisor**. 2012
- Xiao Xiao (USU, MS-Statistics), **Advisor**. 2011
- Glenda Yenni (USU, MS-Statistics), **Advisor**. 2011
- Jess Anderson (USU, MS-Statistics), **Advisor**. 2011
- Mark Schmelter (USU, MS-Statistics), **Advisor**. 2011
- Ephraim M. Hanks (USU, MS-Statistics), **Advisor**. 2010
- Amanda R. Cangelosi (USU, MS-Statistics), **Advisor**. 2008
- Darl D. Flake (USU, MS-Statistics), **Advisor**. 2008
- Shawna Zimmerman (CSU, PhD-Ecology), Com. Member. 2018
- Richard Glennie (Univ. of St. Andrews, Statistics), External Examiner. 2018
- Clint Leach (CSU, MS-Statistics), Com. Member. 2017
- Alison Ketz (CSU, PhD-Ecology), Com. Member. 2017
- Yang Liu (UBC, PhD-Statistics), External Examiner. 2017
- Zachary Weller (CSU, PhD-Statistics), Com. Member. 2017
- Katy Warner (CSU, PhD-FWCB), Com. Member. 2016
- Perry Williams (CSU, PhD-FWCB), Com. Member. 2015
- Brian Gerber (CSU, PhD-FWCB), Com. Member. 2015
- Kevin Blecha (CSU, MS-Ecology), Com. Member. 2015
- Joe Northrup (CSU, PhD-Wildlife), Com. Member. 2015

- Christian Roy (Univ. Laval, Canada, PhD-Ecology), External Examiner. 2015
- Shane Siers (CSU, PhD-Ecology), Com. Member. 2014
- Xiao Xiao (USU, PhD-Biology), Com. Member. 2014
- Ann Raiho (CSU, MS-Ecology), Com. Member. 2014
- Eric Gardunio (CSU, MS-FWCB), Com. Member. 2014
- Glenda Yenni (USU, PhD-Biology), Com. Member. 2013
- Aldo Compagnoni (USU, PhD-Wildland Resources), Com. Member. 2013
- Mark Schmelter (USU, PhD-Engineering), Com. Member. 2013
- Christy Meredith (USU, PhD-Wildland Resources), Com. Member. 2012
- Andrew Rayburn (USU, PhD-Wildland Resources), Com. Member. 2011
- John Lowry (USU, PhD-Wildland Resources), Com. Member. 2010
- Peter Sherick (USU, MS-Statistics), Com. Member. 2010
- Audrey Smith (USU, MS-Mathematics), Com. Member. 2010
- Tammy L. Wilson (USU, PhD-Wildland Resources), Com. Member. 2010
- Amanda Bakian (USU, MS-Statistics), Com. Member. 2008
- Randy Larsen (USU, PhD-Wildland Resources), Com. Member. 2008

**Employees (Former):**

- Christopher Peck, Research Associate 2017-2018
- Jonathan Lewis, Research Associate 2015-2016
- Joseph Halseth, Research Associate 2013-2015