

CONTACT INFORMATION	<p><a href="mailto:tschafer@tamu.edu">tschafer@tamu.edu</a> Blocker 435 Department of Statistics Texas A&amp;M University College Station, TX 77843</p>
EXPERIENCE	<p><b>Texas A&amp;M University</b>, College Station, Texas Assistant Professor, 2022 - <i>Present</i></p> <ul style="list-style-type: none"><li>• Department of Statistics</li></ul> <p><b>Cornell University</b>, Ithaca, New York Postdoctoral Associate, 2020 - 2022</p> <ul style="list-style-type: none"><li>• Principal Investigator: David Matteson (Department of Statistics and Data Science)</li></ul>
EDUCATION	<p><b>University of Missouri</b>, Columbia, Missouri Ph.D., Statistics July 2020</p> <ul style="list-style-type: none"><li>• NSF Graduate Research Fellow, 2016 - 2020</li><li>• Dissertation Title: <i>Alternative Learning Strategies for Spatio-Temporal Processes of Complex Animal Behavior</i></li><li>• Advisor: Christopher K. Wikle</li></ul> <p>M.A., Statistics Dec 2018</p> <p><b>Colorado State University</b>, Fort Collins, Colorado B.S., Statistics and Wildlife Biology, December 2014</p> <ul style="list-style-type: none"><li>• <i>Magna Cum Laude</i> with Honors</li></ul>
PUBLICATIONS	<p>Davidow, M., Merow, C., Che-Castaldo, J.P., <b>Schafer, T.L.J.</b>, Duker, M., Corcoran, D., and Matteson, D.S. 2022. Clustering future scenarios based on predicted range maps. <a href="#">Accepted at Methods for Ecology and Evolution</a></p> <p>Owolabi, O.O., <b>Schafer, T.L.J.</b>, Smits, G.E., Sengupta, S., Ryan, S., Wang, L., Matteson, D.S., Sherman, M.G., and Sunter, D.A. 2022. Role of variable renewable energy penetration on electricity price and its volatility across independent system operators in the United States. <a href="#">Accepted at Data Science in Science</a>.</p> <p>Cunningham, S.A., <b>Schafer, T.L.J.</b>, Wikle, C.K., Ballard, B.M., VonBank, J.A., Bearhop, S., Hilton, G.M., Walsh, A.J., Griffin, L., Fox, A.D., and Weegman, M.D. Quantifying the influence of behavioral contributions to reproductive attempts in geese of contrasting migration strategy. <a href="#">Accepted at Oecologia</a></p> <p>Schindler, A.R., Cunningham, S.A., <b>Schafer, T.L.J.</b>, Sinnott, E.A., Clements, S.J., DiDonato, F.M., Mosloff, A.R., Walters, C., Shipley, A.A., Weegman, M.D., and Zhao, Q. 2022. Joint analysis of structured survey and citizen science data improves precision of bird population trends and the extent of improvement depends on life history strategy. <a href="#">Scientific Reports</a></p> <p><b>Schafer, T.L.J.</b>, Wikle, C.K., and Hooten M.B. 2022. Bayesian inverse reinforcement learning for collective movement. <a href="#">Annals of Applied Statistics</a></p> <p>Che-Castaldo, J.P., Cousin, R., Daryanto, S., Deng, G., Feng, M.E., Gupta, R.K., Hong, D., McGranaghan, R.M., Owolabi, O.O., Qu, T., Ren, W., <b>Schafer, T.L.J.</b>, Sharma, A., Shen, C., Sherman, M.G., Sunter, D.A., Wang, L., and Matteson, D.S. 2021. Critical Risk Indicators (CRIs) for the electric power grid: A survey and discussion of interconnected effects. <a href="#">Environment Systems and Decisions</a>.</p> <p>Schliep, E.M., <b>Schafer, T.L.J.</b>, and Hawkey, M. 2021. Distributed lag models to identify the cumulative effects of training and recovery in athletes using multivariate ordinal wellness data. <a href="#">Journal of Quantitative Analysis in Sports</a>. <b>17(3)</b>: 241-254.</p>

**Schafer, T.L.J.**, Wikle, C.K., Ballard, B.M., VonBank, J.A., and Weegman, M.D. 2020. Bayesian Markov model with Pòlya-Gamma sampling for estimating individual behavior transition probabilities from accelerometer classifications. *Journal of Agricultural, Biological and Environmental Statistics*. **25**: 365-382.

**Schafer, T.L.J.** and Wikle, C.K. 2019. Alternative learning strategies for collective animal movement. In *JSM Proceedings*, Statistical Computing Section. Alexandria, VA: American Statistical Association.

**Schafer, T.L.J.**, Breck, S.W., Baruch-Mordo, S., Lewis, D.L., Wilson, K.R., Mao, J.S., and Day, T.L. 2018. American black bear den-site selection and characteristics in an urban environment. *Ursus*, **29**: 25-31.

WORKS IN  
PROGRESS  
*Available upon  
request*

VonBank, J.A., Cunningham, S.A., **Schafer, T.L.J.**, Weegman, M.D., Link, P.T., Wikle, C.K., Kraai, K.J., Collins, D.P., and Ballard, B.M. Joint use of location and acceleration data to quantify habitat use transitions in arctic-nesting geese. *Under Revision at Scientific Reports*.

Feng, M.E., **Schafer, T.L.J.**, Che-Castaldo, C., Sherman, M.G., Matteson, D.S., and Che-Castaldo, J.P. Novel biodiversity indicators based on finance metrics.

ORAL  
PRESENTATIONS

Reinforcement Learning and Step Selection Analysis for Animal Movement Data. (Invited) Joint Statistical Meetings, Washington, D.C. August, 2022.

Trend Filtering with Adaptive Bayesian Change-point Analysis for Count Time Series.

- (Invited) Entomological Society of America Annual Meeting, Vancouver, British Columbia, Canada. November, 2022.
- (Invited) Institute of Mathematical Statistics Annual Meeting, London, U.K. June, 2022.

Inverse reinforcement learning for animal movement data.

- (Invited) The Wildlife Society Annual Conference, Spokane, Washington. November, 2022.
- Women in Statistics and Data Science, Virtual. October, 2021.

Continuous shrinkage priors with dependence. Joint Statistical Meetings, Virtual. July, 2021.

Inverse reinforcement learning for agent-based models.

- (Invited) SAMSI Pros and Cons of ABMs for Epidemic Modeling, Virtual. June, 2021.
- (Invited) Joint Statistical Meetings, Virtual. August, 2020.

Inverse reinforcement learning for animal behavior from environmental cues. (Invited) ENAR 2020 Spring Meeting, Virtual. March, 2020.

Alternative learning strategies for collective animal movement. Joint Statistical Meetings, Denver, Colorado. August 2019

Estimating behavioral transition probabilities of greater white-fronted geese using non-homogenous Markov models. Joint Statistical Meetings, Vancouver, British Columbia. July, 2018.

Black Bear Den Characteristics and Site Selection Near Urban Aspen, Colorado. The Wildlife Society Annual Conference, Pittsburgh, Pennsylvania. October, 2014.

- Awarded best undergraduate contributed paper.

POSTER  
PRESENTATIONS

Trend Filtering with Adaptive Bayesian Change-point Analysis for Count Time Series. IMS New Researchers' Conference, Washington D.C. August, 2022.

Non-linear forecasting with echo state networks. Ecological Forecasting Initiative, Washington D.C. May, 2019.

Estimating environmental effects on behavioral transitions of geese.

- Missouri Natural Resources Conference, Osage Beach, Missouri. February, 2019.
- Statistics and the Environment section of the American Statistical Association biennial workshop, Asheville, North Carolina. October, 2018

AWARDS	NSF Graduate Research Fellowship	2016
	Benjamin A. Gilman International Scholarship	2013
GRANTS	Colorado Chapter of The Wildlife Society Travel Grant	Oct 2014
	Wayne Sandfort Student Travel Grant, Central Mountains and Plains Section of The Wildlife Society	Oct 2014
TEACHING EXPERIENCE	<b>Professor</b> <i>Texas A&amp;M University, Statistics Dept., College Station, TX.</i> Statistical Methods (STAT 303) - Fall 2022	
	<b>Graduate Instructor</b> <i>University of Missouri, Statistics Dept., Columbia, MO.</i>	2015-2017
	Introductory Statistical Reasoning (STAT 1200) Introduction to Probability and Statistics I (STAT 2500) Introduction to Probability and Statistics II (STAT 3500)	
	<b>Teaching Assistant</b> <i>Colorado State University, Biology Dept., Fort Collins, CO.</i>	2011
	Biology of Organisms Lab (LIFE 103)	
PROFESSIONAL ACTIVITIES	Lead Organizer, Knowledge Discovery and Data Mining (KDD) 2021 Workshop <a href="#">Data-Driven Exploration of Interconnected Risks in Complex Human-Natural Systems</a>	Aug 2021
	Assistant Editor, <a href="#">Data Science in Science</a>	
	Graduate Student Mentorship Georgia Smits, Cornell University	
	Member, Early Career Women in Statistics Mutual Mentoring	2020- <i>Current</i>
	Member, <a href="#">Ecological Forecasting Initiative Student Working Group</a>	2019- <i>Current</i>
	• <a href="#">R-Shiny Working Group Leader</a>	Jun - Nov 2020
	Twitter Outreach, <a href="#">Code-RLadies</a>	2019-2020
	Organizer and Mentor, <a href="#">ASA Datafest Mid-MO</a>	2017-2020
	Mentor, Sports Statistics Initiative	2019-2020
	Graduate Student Leader, Space-Time Reading Group	2018-2019
	Vice President, <a href="#">Statistics Graduate Student Association</a>	2015-2017
REFEREE	Journal of the Royal Statistical Society Series C PNAS Ecology Methods in Ecology and Evolution Society for Petroleum Engineering Journal Ursus	
PROFESSIONAL MEMBERSHIPS	American Statistical Association Association for Computing Machinery The Wildlife Society American Geophysical Union	