

**Jennifer A. Miller, Ph.D.**

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**EDUCATION**

**San Diego State University / University of California at Santa Barbara** Ph.D., Geography Joint Doctoral Program, San Diego, CA (2003). Dissertation: "Incorporating spatial dependence in predictive vegetation models" Advisor: Janet Franklin. Committee members: Serge Rey (SDSU), Mike Goodchild, and Joel Michaelsen (UCSB)

**The Ohio State University** M.A., Geography Department (1997), Spatial Analysis Methods emphasis. Thesis: "A Biogeographic Investigation of Raccoon Rabies in the Mid- Atlantic States" Advisor: Duane Marble

**University of Miami** B.A. with Honors, Geography major/Chemistry minor (1992)

**PROFESSIONAL APPOINTMENTS**

**Associate Professor**, Department of Geography and the Environment, The University of Texas at Austin (2013 –present). Associated faculty, UT Department of Statistics and Data Sciences

**Assistant Professor**, Department of Geography and the Environment, The University of Texas at Austin (2007-2013).

**Assistant Professor**, Department of Geology and Geography, West Virginia University (2003-2007).

**PUBLICATIONS**

**Peer-Reviewed (\*denotes advisees)**

Meyer, T., Holloway, P\*, Christiansen, T.B., Miller, J., D’Odorico, P. and Okin, G.S., (2019). An Assessment of Multiple Drivers Determining Woody Species Composition and Structure: A Case Study from the Kalahari, Botswana. *Land*, 8(8): 122-136.

Schank CJ\*, Cove MV, Kelly MJ, Nielsen CK, O’Farrill G, Meyer N, Jordan CA, González-Maya JF, Lizcano DJ, Moreno R, Dobbins M, Montalvo V, Cruz Díaz JC, Pozo Montuy G, de la Torre JA, Brenes-Mora E, Wood MA, Gilbert J, Jetz W, and Miller J. (2019) A Sensitivity Analysis of the Application of Integrated Species Distribution Models to Mobile Species: A Case Study with the Endangered Baird’s Tapir. *Environmental Conservation* 46 (3), 184-192

Miller, H.J., Dodge, S., Miller, J. and Bohrer, G., (2019). Towards an integrated science of movement: converging research on animal movement ecology and human mobility science. *International Journal of Geographical Information Science*. 33 (5), 855-876.

Jordan, C., B. Hoover\*, A. Dans, C. Schank\*, and J. Miller (2019) The Impact of Hurricane Otto on Baird’s Tapir Movement in Nicaragua’s Indio Maíz Biological Reserve, pgs 5-19 in Movement Ecology of Neotropical Forest Mammals (R. Reyna and C. Chapman, eds.)

Rorres, C., Romano, M., **Miller, J.**, Mossey, J.M., Grubestic, T.H., Zellner, D.E. and Smith, G., (2018). Contact tracing for the control of infectious disease epidemics: Chronic Wasting Disease in deer farms. *Epidemics* 23(71-75).

**J. Miller** and B. Hoover\* (2018). An exploratory analysis of the effects of spatial and temporal scale and transportation mode on anonymity in human mobility trajectories. Human Dynamics Research in Smart and Connected Communities (S-L Shaw and D. Sui, eds). Pgs. 149-162. Springer

P. Holloway\* and **J. Miller** (2018). Analysis and modeling of movement. *Comprehensive Geographic Information Systems*. Vol. Principles and Technical Designs of GIS (T. Cova and M. Tsou, eds). Pgs 162-180. Elsevier

Schank CJ\*, Cove, M.V., Kelly, M.J., Mendoza, E., O'Farrill, G., Reyna-Hurtado, R., Meyer, N., Jordan, C.A., González-Maya, J.F., Lizcano, D.J. Moreno, R., Dobbins, M., Montalvo, V., Sáenz-Bolaños, C., Jimenez, E.C., Estrada, N., Díaz, J.C.C., Saenz, J., Spínola, M., Carver, A., Fort, J., Nielsen, C., Botello, F., Montuy, G.P., Rivero, M., de la Torre, J., Brenes-Mora, E., Godínez-Gómez, O., Wood, M., Gilbert, J., and **Miller, J.** (2017). Using a novel model approach to assess the distribution and conservation status of the endangered Baird's tapir. *Diversity & Distributions*. 00:1–13.

**J. Miller** and P. Holloway\* (2017). Niche theory and models, in The International Encyclopedia of Geography: People, the Earth, Environment, and Technology, D. Richardson, ed. Wiley & Sons.

P. Holloway\* and **J. Miller** (2017). A quantitative synthesis of the movement concepts used within species distribution modelling. *Ecological Modelling* 356(91-103)

**J. Miller**, D. O'Sullivan, and N. Wiegand, eds. (2016). Geographic Information Science: 9th International Conference GIScience 2016, Montreal, Canada, September 27-30, 2016, Proceedings (Vol. 9927). Springer.

Shatz, A.J., Rogan, J., Sangermano, F., **Miller, J.** and Elmes, A., (2016). Modeling the risk of spread and establishment for Asian longhorned beetle (*Anoplophora glabripennis*) in Massachusetts from 2008-2009. *Geocarto International*, 31(8), pp.813-831.

Dodge, S., Weibel, R., Ahearn, S.C., Buchin, M. and **Miller, J.**, (2016). Analysis of movement data. *International Journal of Geographical Information Science*, 30(5), pp.825-834.

Holloway, P\*, **Miller, J.** and Gillings, S., (2016). Incorporating movement in species distribution models: how do simulations of dispersal affect the accuracy and uncertainty of projections? *International Journal of Geographical Information Science*, 30(10) pp.1-25.

KA Crews and **J. Miller** (2016). The Amended Tobler's Law of GIS for STEM for Higher Education: Both Near and Distant Things Matter. Ed DJ Cowen. GIS and STEM in Higher Education. ESRI Press: Redlands, California.

**J. Miller** (2015), Towards a Better Understanding of Dynamic Interaction Metrics for Wildlife: a Null Model Approach. *Transactions in GIS*, 19: 342–361.

**J. Miller** and P. Holloway\* (2015). Incorporating movement in species distribution models. *Progress in Physical Geography*. 39(6) 837-849.

N. Mishra, K. Crews, **J. Miller**, and T. Meyer (2015) Mapping vegetation morphology types in Southern Africa savanna using MODIS time-series metrics: a case study of Central Kalahari, Botswana. *Land* 4(1):197-215.

- Holloway, P\*, & Miller, J. (2015). Exploring spatial scale, autocorrelation and nonstationarity of bird species richness patterns. *ISPRS International Journal of Geo-Information*, 4(2), 783-798.
- T. Grubestic, J. Miller, and A.T. Murray (2014). Geospatial and geodemographic insights for diabetes in the United States. *Applied Geography* 55: 117-126.
- P. Holloway\* and J. Miller (2014) Uncertainty analysis of step-selection functions: the effect of model parameters on inferences about the relationship between animal movement and the environment. *Lecture Notes in Computer Science* 8728, 48-63
- J. Miller (2014). Virtual species distribution models: using simulated data to evaluate aspects of model performance. *Progress in Physical Geography* 38:1, 117-128.
- S. McCauley, J. Rogan, and J. Miller (2013). Modeling forest species distributions in a human-dominated landscape in Northeastern, USA. *International Journal of Applied Geospatial Research* 4:3, 39-57.
- J. Miller (2012). Species distribution models: Spatial autocorrelation and nonstationarity. *Progress in Physical Geography* 36:5, 681-692.
- J. Miller (2012). Using spatially explicit simulated data to analyze animal interactions: a case study with brown hyenas in Northern Botswana. *Transactions in GIS* 16(3):271-291.
- J. Miller and R.Q. Hanham (2011). Spatial nonstationarity and the scale of species-environment relationships in the Mojave Desert, CA. *International Journal of Geographical Information Science* 25:3, 423-438.
- J. Miller (2010). Species distribution modeling. *Geography Compass* 4(6):490-509.
- B. Ghimire, J. Rogan, and J. Miller (2010). Contextual land-cover classification: incorporating spatial dependence in land-cover classification models using random forests and the Getis statistic. *Remote Sensing Letters* 1:1, 45-54.
- J. Miller and J. Franklin (2010). Incorporating spatial autocorrelation in species distribution models, in Handbook of Applied Spatial Analysis, M. Fischer and A. Getis, eds. Springer Pubs, pgs. 685-702.
- J. Franklin and J. Miller (2009). Statistical methods- Modern Regression, in Spatial Inference and Prediction with Biogeographical Data, J. Franklin, author. Cambridge University Press, pgs. 113-153.
- R. Aspinall, J. Miller, and J. Franklin (2009). Calculations on the back of a climate envelope: addressing the geography of species distributions. *Proceedings of the National Academy of Sciences* 106(16): E44.
- J. Rogan, J. Franklin, D. Stow, J. Miller, C. Woodcock, and D. Roberts (2008). Mapping land cover modifications over large areas: A comparison of machine learning algorithms. *Remote Sensing of Environment* 112(2272-2283).
- J. Miller, J. Franklin, and R. Aspinall (2007). Incorporating spatial dependence in predictive vegetation models. *Ecological Modelling* 202(225-242).
- A. Hessler, J. Miller, J. Kernan, and D. McKenzie (2007). Mapping paleo-fire boundaries from binary point data: comparing interpolation methods. *The Professional Geographer* 59(1):87-104.

J. Miller and J. Rogan (2007). Using GIS and remote sensing for ecological mapping and monitoring, in Integration of GIS and Remote Sensing, V. Mesev, Ed. Wiley & Sons, pgs. 233-268.

J. Rogan and J. Miller (2006). Integrating GIS and remotely sensed data for mapping forest disturbance and change, in Understanding Forest Disturbance and Spatial Pattern: Remote Sensing and GIS Approaches, M. Wulder and S. Franklin, Eds., CRC Press, Boca Raton, FL, pgs. 133-171.

J. Miller and J. Franklin (2006). Explicitly incorporating spatial dependence in predictive vegetation models in the form of explanatory variables: a Mojave Desert case study. *Journal of Geographical Systems* 8:411-435.

J. Miller (2005). Incorporating spatial dependence in predictive vegetation models: residual interpolation methods. *The Professional Geographer* 57(2): 169-184.

J. Rogan, J. Miller, D. Stow, J. Franklin, L. Levien and C. Fischer, (2003). Land-cover change monitoring with classification trees using Landsat TM and ancillary data. *Photogrammetric Engineering and Remote Sensing* 69(7): 793-804.

J. Miller and J. Franklin (2002). Modeling the distribution of vegetation alliances using generalized linear models and classification trees with spatial dependence. *Ecological Modelling*, 157: 227-247.

J. Franklin, T. Keeler-Wolf, K. Thomas, D. Shaari, P. Stine, J. Michaelsen, and J. Miller (2001). Stratified sampling for field survey of environmental gradients in the Mojave Desert Ecoregion, in GIS and Remote Sensing Applications in Biogeography and Ecology, A. Millington, S. Walsh and P. Osborne, Eds., Kluwer Academic Publishers, Netherlands, pgs. 229-253.

#### **Manuscripts under review:**

J. Miller and T. Grubestic (major revision). A spatial exploration of the 'halo effect' in the 2016 U.S. presidential election. *Annals of the Association of American Geographers*.

B. Hoover\*, G. Bohrer, J. Merkle, and J. Miller (submitted) Making animal movement datasets, data-linkage techniques, methods, and environmental layers easier to find, interpret, and analyze. *Movement Ecology*.

J. Miller (submitted). Exploring the utility of path analytics to make inferences about dynamic interactions between pairs of moving objects. *Journal of Spatial Information Science*.

B. Hoover\* and J. Miller (submitted). How does GPS-point pattern shape and sample size affect time-based home range estimates? *Ecological Modelling*.

C. Schank\*, et al. (submitted). Population status, connectivity, and conservation action for the endangered Baird's tapir. *Biological Conservation*.

B. Hoover\*, J. Miller, and J. Long (submitted) Mapping areas of asynchronous-temporal interaction in animal-telemetry data. *Transactions in GIS*

#### **Conference proceedings (peer-reviewed extended abstracts or papers)**

J. Miller (2019) Using movement parameters to infer dynamic interactions between moving object pairs. GeoComputation Conference, Queenstown, New Zealand

- J. Miller, M. Puotinen, and B. Radford (2019) Using local maps of spatial accuracy for benthic habitat models. GeoComputation Conference, Queenstown, New Zealand.
- J. Miller (2017). A computational movement analysis approach for modelling interactions between pairs of moving objects. GeoComputation Conference, Leeds, UK.
- J. Miller (2015) Using a null model approach to explore how dynamic interactions in wildlife are analyzed. GeoComputation conference, Richardson, Texas.
- J. Miller (2014). Towards a better understanding of dynamic interaction metrics for wildlife: a comparison of null models. GIScience Meeting, Vienna, Austria.
- P. Holloway and J. Miller (2012). A novel modeling technique to incorporate regular movement into species distribution models. Workshop on Time-GIScience, Columbus, Ohio.
- J. Miller (2011). To what extent are Brown Hyena pairs in Northern Botswana interacting? An exploration using spatially explicit simulated movement patterns. Council on Spatial Information Theory (COSIT) Meeting, Belfast, Maine.
- J. Miller and G. Maude (2010). Using correlated random walks to analyze interaction between Brown Hyena pairs in Northern Botswana, GIScience Meeting, Zurich, Switzerland.
- J. Miller (2009). Spatial non-stationarity and scale of species-environment relationships in the Mojave Desert, CA. International GeoComputation Conference, Sydney, Australia.
- J. Miller (2007). Using simulated data to explore the effects of spatial structure, sampling strategy, and statistical methods on species distribution models. GeoComputation Conference, Maynooth, Ireland.
- J. Miller (2005). Incorporating spatial dependence in predictive vegetation models: Mojave Desert case study. GeoComputation Conference, Ann Arbor, MI.

#### **Book reviews**

- J. Miller (2009). A Review of The Handbook of Geographic Information Science, Annals of the Association of American Geographers 99(3):637 — 639.
- C. D'Alessandro-Scarpari, G. Elmes, J. Miller, D. Weiner (2006). A Review of Geography and Technology, Progress in Human Geography 30:675-677.

#### **RESEARCH GRANTS**

**Awarded** (total amount of external awards: ~\$7m/ total amount of J.Miller's budget:~\$1.7m): **Army/Department of Defense Multidisciplinary University Research Initiative (MURI)**, Networked Palynology Models of Pollen and Human Systems (NYMPHS). 2019-2024, total amount: \$6.2million. UT sub-contract: ~\$3million (J. Miller's budget through GRG department is ~\$1,00,000).

**National Science Foundation Grant (#1560727)** Advancing Movement and Mobility Science by Bridging Research on Human Mobility and Animal Movement Ecology workshop, Total award (through PI H.J. Miller, Ohio State) \$69,999/ 2 years (2016-2018); J. Miller: PI of UT subcontract \$28,535.

**UT Center for Identity Summer Research Grant**, A computational movement analysis framework for exploring anonymity in human mobility trajectories, July-August 2015 (\$23,100).

**National Science Foundation Grant (#1424920)**, Developing a novel framework for analyzing dynamic interactions in animal movement data, **J. Miller**: Sole PI, 2014-2017 (no-cost extension to 2018) (\$264,988).

**National Institutes of Health R21 Grant**, Development and validation of novel prospective GPS/GIS based exposure measures, PI: Jacqueline Kerr (UC San Diego), **J. Miller**: consultant. 2012-2014.

**UT Vice President of Research Grant**, Developing a spatially explicit framework to analyze animal movement and interaction: a case study using brown hyena in Northern Botswana, 2011-2012.

**National Science Foundation Grant (#0962198)**, Spatial Autocorrelation and Species Distribution Models: Analyzing the Effects of Spatial Structure, Sampling Strategy, Statistical Methods, and Scale Using Simulated Data, **J. Miller**: Sole PI, 2010-2013 (no-cost extension to 2015) (\$266,863).

**WVU Eberly College of Arts and Sciences Research Proposal Preparation Mini-Grant**, June 2006.

**National Science Foundation Grant (#0452389)**, Spatial inference and prediction with biogeographical data, **J. Miller**: Co-PI (with Janet Franklin, SDSU: \$250,000), 2005-2008 (with no-cost extension to 2009) (**J. Miller**: \$106,106).

**Shared Visions Grant**, San Diego State Foundation, San Diego, CA. Dec. 2000.

#### HONORS/AWARDS/FELLOWSHIPS

**Provost's FII Special Funding Retention Award**, UT-Austin (2015-2017; 2017-2019).

**Visiting Research Fellow at Australian Institute of Marine Science (AIMS)**, Perth, Australia, November-December 2015

**UT Faculty Research Assignment**, Fall 2015.

**2nd place, Best paper. 2015 International Conference on GeoComputation. May 20-23. Richardson, TX.**

**UT Liberal Arts Summer Research Assignment**, June-August 2013

**Association of American Geographers (AAG) Biogeography Specialty Group Travel Grant**, to attend the International Biogeography Society Meeting in Heraklion, Crete, Jan. 7-11, 2011.

**UT College of Liberal Arts Research Fellowship**, Fall 2009

**UT Liberal Arts Summer Research Assignment**, June-August 2008

**AAG - NSF Travel Grant**, to attend IGU conference in Brisbane, Australia, July 3-7, 2006.

**ESRI-UCGIS Young Scholar Award**, UCGIS Summer Meeting, Adelphi, MD, Oct. 20-23, 2004.

**WVU Summer Grant for Course Development**, for GEOG 150, "Digital Earth," June 2004. 1 month summer salary

**J. Warren Nystrom Dissertation Award**, AAG Centennial Meeting, Philadelphia, PA, March 14-19<sup>th</sup>, 2004.

**Co-author, Leica Geosystems Award for Best Scientific Paper in Remote Sensing** for "Land-Cover Change Monitoring with Classification Trees using Landsat TM Ancillary Data" (PE&RS; 69-7, pp 793-804). 2004

**Best Student Presentation, 18<sup>th</sup> Annual Symposium, International Association for Landscape Ecology-US Chapter (US-IALE), Banff, Alberta, Canada, April 2 – 6, 2003.**

**NASA-MSU Professional Enhancement Award, 18<sup>th</sup> Annual Symposium, International Association for Landscape Ecology-US Chapter (US-IALE), Banff, Alberta, Canada, April 2 – 6, 2003.**

**1st Place, AAG GIS Specialty Group Honors Student Paper Competition, 99th Annual AAG Meeting, New Orleans, LA, March 4 - 8, 2003.**

**NCGIA Travel Grant, GIScience Conference, Boulder, CO, September 25 - 28, 2002.**

**Most Analytical Poster Award: ESRI User's Conference, San Diego, CA, July 8 - 12, 2002.**

#### **INVITED TALKS/WORKSHOPS**

**Panel Speaker, Career Routes in Movement Ecology: The Academic World and Beyond at the Gordon Research Seminar at the Renaissance Tuscany Il Ciocco in Lucca (Barga), Italy March 2-4, 2019.**

**Smithsonian Mason School of Conservation Workshop on "Linking remote animal detection and movement data with macrosystem environmental datasets and networks" Oct. 21-23, 2018.**  
Invited participant

**Invited seminar, Institute of Biodiversity and Ecosystem Dynamics (IBED), University of Amsterdam (Amsterdam, Netherlands), April 26, 2018.**

**Keynote talk at Lorentz Workshop on Movement: New Sensors, New Data, New Challenges.**  
Lorentz Center (Leiden, Netherlands), August 21-25, 2017.

**Dagstuhl Seminar on "From Observations to Prediction of Movement" (17282). Schloss Dagstuhl (Wadern, Germany), July 9-14, 2017. Invited participant**

**Ohio State "Workshop on Analyzing Movement and Mobility within Geographic Context".** Co-organizer. Columbus, Ohio May 11-12, 2017. (NSF #1560727)

**UT-Austin "Workshop on measuring and analyzing interactions among mobile entities".** Organizer. Austin, Texas Nov. 10-11, 2016. (NSF #1560727)

**Texas A&M University, Geography Seminar Series, "Towards a better understanding of dynamic interaction metrics for wildlife: a null model approach" Feb. 6, 2015.**

**University of Texas, LBJ School of Public Affairs Doctoral and Faculty Colloquium, "Some insights into using a null model approach for analyzing interactions between wildlife individuals." Oct. 16, 2014.**

**Workshop on Analysis of Movement Data, Co-organizer, GIScience (Vienna, Austria), Sep. 23, 2014.**

**Clark University, Conservation seminar, Worcester, MA, "Spatial statistics in ecology," Mar. 21, 2014.**

**Clark University, Conservation seminar, Worcester, MA, "Using simulated data to analyze animal interactions: a case study with brown hyenas in Northern Botswana." Feb. 22, 2013.**

**University of North Texas Department of Geography, Denton, TX, "Using simulated data to analyze animal interactions: a case study with brown hyenas in Northern Botswana." Sep. 28, 2012.**

**DIMACS/MBI Workshop in Quantitative Landscape Ecology and Environmental Sustainability**, University of KwaZulu-Natal, Durban, South Africa, “Using simulated data to quantify dynamic interactions between pairs of individuals”, July 6, 2012.

**Clark University Graduate School of Geography**, Worcester, MA, “Virtual Biogeography: Using simulated data as a species modeling tool.” Sep. 16, 2011.

**Workshop on Identifying Objects, Processes, and Events from Spatio-temporal Data**, COSIT (Belfast, ME). Sep. 12, 2011.

**University of Texas Department of Geography and the Environment**, Austin, TX, “Virtual Biogeography: Using simulated data as a species modeling tool.” Feb. 18, 2011.

**University of Utah Department of Geography**, Salt Lake City, UT, “Virtual Biogeography: Using simulated data as a species modeling tool.” Nov. 19, 2010.

**Movement Pattern Analysis Workshop**, University of Zurich, Zurich, Switzerland, Sep. 14, 2010.

**Arizona State University School of Geographical Sciences Colloquium Series**, Tempe, AZ, “The impact of pattern and place on predictive vegetation models: A Mojave Desert case study.” Feb. 2, 2007

**Clark University Graduate School of Geography Colloquium**, Worcester, MA, “Species and Space: The impact of pattern and place on predictive vegetation models.” Nov. 17, 2005.

**San Diego State University Department of Geography Colloquium**, San Diego, CA, “Incorporating spatial dependence in predictive vegetation models,” Nov. 12, 2004

**Workshop on Generalized Regression Analysis and Spatial Prediction: Grasping ecological patterns from species to landscape**, Riederalp, Switzerland, Aug. 16-20, 2004.

**Workshop on Advances in GLM/GAM Modeling: from species' distribution to environmental management**. Riederalp, Switzerland, Aug. 6 – 10, 2001.

## **GRADUATE STUDENT SUPERVISION**

### **West Virginia University:**

Ben Gilmer, M.A., Geography, **Committee chair** (completed May 2007)

Catalin Demian, M.A., Geography, **Committee chair** (completed May 2007)

Jim Kernan, Ph.D., Geography, **Committee member** (completed September 2008)

### **University of Texas:**

Paul Holloway, Ph.D., Geography, **Committee chair** (completed May 2016): Lecturer, University College Cork, Cork Ireland

Cody Schank, Ph. D., Geography. **Committee chair** (completed May 2018): Data Scientist, Dell, Austin, TX

Brendan Hoover, Ph. D., Geography, **Committee chair** (2015- present (est. May 2020))

Amelia Sosnowski, Ph. D., Geography, **Committee member** (2016- present)

Alex Marden, Ph.D., Geography, **Committee member** (2018- present)

Dan Levine, Ph.D., Geography, **Committee member** (2019 – present)

Sara Eshleman, Ph.D., Geography, **Committee member** (2019 – present)

Leila Donn, Ph.D., Geography, **Committee member** (2019 – present)



Deidre Zoll, Ph.D., Community and Regional Planning, Committee member (2018 – present)

Lazarus Pomara, Ph.D., Geography, Committee member (completed December 2009)

Ophelia Wang, Ph.D., Geography, Committee member (completed December 2011)

Niti Mishra, Ph.D., Geography, Committee member (completed May 2014)

Xuebin Yang, Ph. D., Geography, Committee member (completed May 2018)

Othoniel Vázquez Domínguez, M.A., Geography, Committee member (completed August 2011)

Maria José LaRota, M.A., Geography, Committee member (completed December 2011)

Dylan Malcomb, M.A., Geography, Committee member (completed May 2012)

Renata Ponte, M.A., Geography, **Committee chair** (completed May 2012)

Justin Laue, M.A., Geography, Committee member (completed May 2014)

Jillian Ames, M.A., Geography, **Committee chair** (completed May 2016)

Dan Levine, M.A., Geography. Committee member (completed 2018).

Allison Bullock, B.A., Geography, Honors thesis reader (completed May 2010)

Maggie Houchen, B.A., Geography, Honors thesis reader (completed May 2012)

Shakkhar Biswas, B.A., Geography & Computer Science, **Honors thesis adviser** (completed May 2019)

Rachel Snaveley, B.A., Geography, **Honors thesis adviser** (completed May 2015)

Andrew Townsend, B.A., Geography, Honors thesis reader (completed May 2012)

Isaac Sasson, Portfolio in Applied Statistical Modeling, **Adviser** (completed December 2010)

Christina Andruks, Ph.D., Biology, Committee member (completed May 2014)

Kelly Pierce, Ph.D., Biology, Committee member (completed December 2014)

Matthew Moskwik, Ph.D., Biology, Committee member (completed December 2014)

Stavana Strutz, Ph.D., Biology, Committee member (completed May 2018)

Yubing Wang, Ph.D. Civil and Environmental Engineering, Committee member (completed May 2014)

Alejandra Ramirez Cuesta, Ph.D., Public Affairs, Committee member (completed December 2012)

#### **Clark University:**

Steve McCauley, Ph.D., Geography, Committee member (completed December 2009)

Ashley Curtis, M.A., Geography, Committee member (completed August 2008)

Andrew Shatz, M.A., Geography, Committee member (completed August 2013)

#### **External:**

Frederique Olivier, Ph.D. University of Tasmania, External reviewer (2006)

Cordelia Moore, Ph.D. University of Western Australia, External reviewer (2009)

Shi Haijing, Ph.D. University of New South Wales, External reviewer (2012)

## **PROFESSIONAL SERVICE**

### **University of Texas**

*Department of Geography and the Environment:*

Human Geography faculty search committee (2013)

Undergraduate committee (2013 – 2014)

External chair search committee (2012)  
Honors program director (2010-present)  
GIScience faculty search committee (2010)  
Department representative at UT Spring Commencement (May 2010, May 2011, May 2013)  
Department representative at COLA Parents' Dinner (Oct. 2007, Oct. 2010, Oct. 2011)  
Colloquium chair (Spring 2009, 2014- 2016)  
Merit committee (2009, 2014)  
Physical Geography faculty search committee (2008)  
Graduate admissions committee (2007-2018)  
Department representative at COLA Fall Commencement (Dec. 2007)  
Health Geography faculty search committee (2007)  
Minority Liaison (2007-2010)  
Chair, Department Computer committee (2008- 2013)

*College/University:*

Member, Quantitative Reasoning (QR) Flag Committee (2016- 2019)  
Reviewer, UT Vice Provost of Research awards (2013)  
UT College of Liberal Arts Faculty IT Advisory Committee (2010 – 2013)  
Associated Faculty, UT Division of Statistics and Scientific Computing (2009 – present)

*International service:*

Editorial Board, *Computers, Environment and Urban Systems* (2019-present)  
Associate Editor, *International Journal of Geographical Information Science*, (2018- present)  
Associate Editor, *Geographical Analysis* (2017 – present)  
Progress Reports editor, *Progress in Physical Geography*, (2014- present)

International GIScience Conference steering committee (2017- present)  
Program committee, International GIScience Conference (2020). Poznań, Poland  
Program committee, Auto-Carto (2020). Redlands, California.  
Program committee, International GIScience Conference (2018). Melbourne, Australia  
Program Co-Chair, International GIScience Conference. Sep. 27-30, 2016. Montreal, CA.  
Elected, AAG Spatial Analysis & Methods (SAM) Specialty Group, Board member (2013-2016).  
Site Selection committee, US Chapter of International Association of Landscape Ecology (2010-present)  
Selection committee, William L. Garrison Award for Best Dissertation in Computational Geography (2010).  
Programme committee, International Geocomputation Conference (2009). Sydney, Australia  
Elected, AAG GIS Specialty Group Chair (2008-2009)  
Elected, AAG GIS Specialty Group Vice-Chair (2007-2008)  
Elected, AAG GIS Specialty Group Academic Councilor (2005-2007)  
Judge, Sigma Xi Research Day, WVU, (April 2006)  
Selection committee, UCGIS Young Scholar Awards, (May 2005)

**Research review panel service:**

National Science Foundation, Doctoral dissertation research improvement panel (2013- 2015).  
National Science Foundation, Partnerships for International Research and Education (PIRE) Reverse Site Visit Panel (2014)

**Proposal reviews:**

(2017) The Netherlands Organisation for Scientific Research (NWO, the Dutch Research Council), Accelerating Scientific Discovery (ASDI 2017) Enhancing Data- and Computer-Intensive Research.  
(2016) Israeli Ministry of Science, Technology and Space Research Program,  
(2014) DoD's Strategic Environmental Research and Development Program (SERDP),  
(2010) Hungarian Scientific Research Fund (OTKA),  
(2008) Kansas State University Dept. of Geography,  
(2008 – present) National Science Foundation.

**Manuscript reviews:**

(2019) C. Bone and A. Lobben, Our Digital Earth. Macmillan  
(2019) C. Brunson and L. Comber, An Introduction to R for Spatial Analysis and Mapping. Sage.  
(2011) E-book proposal for Remote Predictive Mapping (RPM) of Northern Environments.  
Bentham Science Publishers  
(2009) Franklin, J. Spatial Inference and Prediction with Biogeographical Data (with the exception of chapter 6, which I co-authored). Cambridge University Press  
(2009) Chang, Introduction to Geographic Information Systems (reviewed 5<sup>th</sup> ed for 6<sup>th</sup> ed).  
McGraw-Hill.  
(2008) McKenzie, D. et al., Scaling laws and complexity in fire regimes, Chapter 2 in The Landscape Ecology of Fire. Springer-Verlag.