Benjamin L. Turner, Ph.D.

EDUCATION

Ph.D.	South Dakota State University	Aug 2014	Natural Resource Management
M.S.	Texas A&M University-Kingsville	May 2011	Agribusiness
B.S.	Sam Houston State University	May 2009	Agriculture

LICENSURE/CERTIFICATION

Certificate in Advanced Ranch Management, 2010, King Ranch® Institute for Ranch Management, Texas A&M University-Kingsville

PROFESSIONAL EXPERIENCE

2015-present Associate Professor (2021-present)
Assistant Professor (2015-2021), College of Agriculture and Natural Resources, Texas A&M University-Kingsville

- *50% teaching, 50% KRIRM research and service appointment*
- *Advise undergraduate and graduate students*
- *Obtain external research funding*
- *Create impactful student-scholar experiences*

2014-2015 Post-doctoral Researcher, Department of Animal and Range Sciences
New Mexico State University

- *System dynamics model development, evaluation, testing, and analysis of socio-hydrological acequia systems*

TEACHING EXPERIENCE

2014-Present Associate Professor (2021-present), Department of Agriculture, Agribusiness, and Environmental Science, Texas A&M University-Kingsville

Current courses: AGBU 4325 Rangeland Resource Economics
AGBU 4371 Strategic Agribusiness Management

PROFESSIONAL ACTIVITIES

Member, Society for Range Management, 2013-present
Member, System Dynamics Society, 2013-present

SELECTED PUBLICATIONS

Schofield, L., Pearson, M.E., Newell, S., Clackum, N., Turner, B.L. 2024. Why aren't more landowners enrolling in land-based carbon credit exchanges? *Rangelands*, 46(4): 117-131, doi.: 10.1016/j.rala.2024.05.004

Turner, B.L., Goodman, M. 2023. Capturing the science behind the craft: a reporting framework to improve quality and confidence in non-simulated models. *System Dynamics Review*. doi:10.1002/sdr.1752

Mier-Valderrama, L., Leal, J., Perotto-Baldivieso, H.L., Hedquist, B., Menendez, H.M., Anoruo, A., Turner, B.L. 2023. Evaluating soil erosion and runoff dynamics in a humid subtropic, low stream order, southern plains watershed from cultivation and solar farm development. *International Soil and Water Conservation Research*. doi:10.1016/j.iswcr.2023.09.004

Crozier, S., Worthington, J., Wright, M., Michna, L., Turner, B.L. 2023. Exploring wild horse population dynamics on US public rangelands using a simple systems simulation model. *Rangeland Ecology and Management* 88:47-61.

Turner, B.L. 2022. Beef Production Health Systems: Perspectives of a Trained Systems Thinker. *Veterinary Clinics of North America: Food Animal Practice* 38(2):179-200.

Taylor, J.K., Stanko, R.L., Rhoades, R., McCuistion, K.C., Mathis, C., Machen, R., Turner, B.L. 2022. Can early weaning calves of first-calf heifers improve long-term herd and financial performance in a vertically-integrated beef production system? A study application using system dynamics. *Applied Animal Science* 38 (2):183-199.

Turner, B.L. 2021. Soil as an Archetype of Complexity: A Systems Approach to Improve Insights, Learning, and Management of Coupled Biogeochemical Processes and Environmental Externalities. *Soil Systems* 5(3), doi: 10.3390/soilsystems50300.

Turner, B.L., Wuellner, M., Cortus, E., Chumbley, S. 2021. A novel approach to teaching complex systems problem-solving using interdisciplinary system dynamics and a multi-university cohort model. *Systems Research and Behavioral Science*, doi.org/10.1002/sres.2778.

Turner, B.L., Goodman, M., Machen, R., Mathis, C., Rhoades, R., Dunn, B. 2020. Results of Beer Game Trials Played by Natural Resource Managers Versus Students: Does Age Influence Ordering Decisions? *Systems* 8(4):37, doi.org/10.3390/systems8040037.

Turner, B.L. 2020. Model laboratories: a quick-start guide for design of simulation experiments for dynamic systems models. *Ecological Modelling* 434:109246, doi:10.1016/j.ecolmodel.2020.109246.

Turner, B.L., M. Wuellner, Malo, D., Herrick, J.E., Dunn, B., Gates, R. 2018. Ecosystem functions in mixed cropland-grassland systems influenced by soil legacies of past crop cultivation decisions. *Ecosphere* 9 (12), e02521.

Turner, B.L., Fuhrer, J., Wuellner, M., Menendez, H., Dunn, B., Gates, R. 2018. Scientific case studies in land-use driven soil erosion in the central United States: why soil potential and risk concepts should be included in the principles of soil health. *International Soil and Water Conservation Research*, 6(1), March, 63-78. https://doi.org/10.1016/j.iswcr.2017.12.004.

Turner, B.L., Menendez, H.M., Gates, R., Tedeschi, L.O., Atzori, A.S. 2016. System dynamics modeling for agricultural and natural resource management issues: review of some past cases and forecasting future roles. *Resources* 5, 40; doi:10.3390/resources5040040

GRANTS/AWARDS/HONORS/ETC.

Grants (current PI roles)

Turner, B.L. (PI). USDA Higher Education Challenge- Strengthening Faculty for Teaching the Next Generation of Wicked Problem Solvers $733,343 for 2024-2027

Turner, B.L. (PI). USDA ARS Southern Plains Climate Hub- Developing Southern Plains Region Management And Resiliency Tools for Agricultural Systems (SMART Ag Systems) $200,000 for 2023-2025

Clapp, L (PI) **Turner, B**., Nelson, S., Sinha, T., and Ozcelik, S. (Co-PIs). NSF CREST Center for Sustainable Water Use (CREST-SWU). $5,000,000 for 2019-2026.

Honors and Awards

Senior Faculty Research Award, 2024, TAMUK College of Agriculture and Natural Resources

Junior Faculty Research Award, 2021, TAMUK College of Agriculture and Natural Resources

Honorable Mention, Best Early Career Research Award, 2021-2022, International Society of Ecological Modeling

Popular Writing Award, 2019, Texas Section-Society for Range Management

Innovator of the Year Award, 2017, TAMUK Distance Education and Instructional Technology