

## **Dr. Blair D. Sterba-Boatwright**

Texas A&M University-Corpus Christi  
Science & Engineering, Mathematics & Statistics  
Office: Center for Instruction 312, Office Phone: (361) 825-2724, Email:  
blair.sterbaboatwright@tamucc.edu

### **Education**

MS, Texas A&M University, 2007.

PhD, University of Texas, 1987.

BA, Swarthmore College, 1980.

### **Professional Employment**

Professor, Texas A&M University-Corpus Christi. (September 2012 - Present).

Associate Professor, Texas A&M University-Corpus Christi. (September 1994 - August 2012).

Assistant Professor, Texas A&M University-Corpus Christi. (September 1989 - August 1994).

Assistant Professor, St. Edward's University. (September 1987 - August 1989).

### **Administrative Appointments**

#### Department

Department Chairperson (2006 - 2009)

Program Coordinator (1992 - 1996)

Did most administrative work for mathematics other than personnel evaluation.

#### University

Faculty Senate Speaker (1999 - 2002)

### **Professional Memberships**

American Statistical Association

## **TEACHING**

### **Teaching Experience**

CMSS 6590, ADVANCED TOPICS: Mixed Effects Models for Scientists

MARB 6590, SPECIAL TOPICS: Introduction to Bayesian Statistics

MATH 1442, STATISTICS FOR LIFE

MATH 3342, APPLIED PROBABILITY AND STATS

MATH 4696, DIRECTED INDEPENDENT STUDY

MATH 5310, TOPICS IN MATHEMATICS: Apply Probability and Statistics

MATH 5315, STATISTICAL MTHDS IN RSRCH I

MATH 5316, STATISTICAL MTHDS IN RSRCH II  
MATH 5342, THE THEORY OF STATISTICS  
MATH 5390, SPEC TOPIC IN MATH:"STATISTICAL PATTERN RECOGNITION"  
MATH 5393, LITERATURE REVIEW AND RESEARCH  
MATH 5394, RESEARCH METHODS IN MATH  
MATH 5396, Statistical Methods for Environmental Science  
MATH 5995, THESIS  
MATH 6315, STATISTICAL METHODS RSRCH I  
MATH 6316, STATISTICAL METHODS RSRCH II  
MATH 6317, MIXED EFFECTS MODELS SCIENTIST

## Teaching Awards and Honors

Outstanding Online Educator Award, ODELT. (2014).  
Minnie Stevens Piper Award Nominee. (2010).  
Teaching Excellence Award, Texas A&M University System. (2010).  
Presidential Excellence Award, St. Edward's University. (1989).

## SCHOLARLY AND CREATIVE ACTIVITIES

### Publications

#### Refereed

##### Conference Proceedings

Warner, N. N., Sterba-Boatwright, B. D., Tissot, P., Jeffress, G. A. (2012). Estimated Increase in Inundation Probability with Confidence Intervals for Galveston, Texas. In Spaulding, M. L. (Ed.), *Estuarine and Coastal Modeling: Proceedings of the Twelfth International Conference, November 7-9, 2011, St. Augustine, Florida* (pp. 528-541). American Society of Civil Engineers.

Zimmer, B. G., Sadovski, A. L., Tissot, P., Sterba-Boatwright, B. D. (2008). In C. H. Dagli et. Al. (Ed.), *Monte Carlo Simulations and Factor Analysis to Optimize Neural Network Input Selections and Architectures* (vol. 18, pp. 501-508). New York, NY: Engineering Systems through Artificial Neural Networks / ASME Press.

##### Journal Articles

Wetz, M. S., Cira, E. K., Sterba-Boatwright, B. D., Montagna, P. A., Palmer, T., Hayes, K. (2017). Exceptionally high organic nitrogen concentrations in a semi-arid South Texas estuary susceptible to brown tide blooms. *Estuarine, Coastal and Shelf Science*, 188, 27-37.

Wetz, M. S., Hayes, K., Fisher, K., Price, L., Sterba-Boatwright, B. D. (2016). Water quality dynamics in an urbanizing subtropical estuary (Oso Bay, Texas). *Marine Pollution Bulletin*, 104, 44-53.

Palmer, G., Hogan, J. D., Sterba-Boatwright, B. D., Overath, D. (2016). Invasive lionfish (*Pterois volitans*) reduce the density but not the genetic diversity of a native reef fish. *Marine Ecology Progress Series*, 558, 223-234.

Hodanbosi, M. R., Sterba-Boatwright, B. D., Fahlman, A. (2016). Updating a current gas dynamics model using parameter estimates for California sea lions (*Zalophus californianus*). *Respiratory Physiology & Neurobiology*, 234, 1-8.

Wang, H., Sterba-Boatwright, B. D., Hu, X. (2016). A new statistical approach for interpreting oceanic fCO<sub>2</sub> record. *Marine Chemistry*, 183, 41-49.

Brewer, M., Rudershausen, P. J., Sterba-Boatwright, B. D., Merrill, J. H., Buckel, J. A. (2016). Survival, Tag Retention, and Growth of Spot and Mummichog following PIT Tag Implantation. *North American Journal of Fisheries Management*, 36, 639-651.  
<http://www.tandfonline.com/loi/ujfm20>

Marshall, C. D., Wang, J., Rocha, A., Godinez, C., Fisler, S., Narazaki, T., Sato, K., Sterba-Boatwright, B. D. (2014). Scaling of bite performance with head and carapace morphometrics in green turtles (*Chelonia mydas*). *Journal of Experimental Marine Biology and Ecology*, 451, 91-97.

Marshall, C. D., Guzman, A., Narazaki, T., Sato, K., Kane, E. A., Sterba-Boatwright, B. D. (2012). The ontogenetic scaling of bite force and head size in loggerhead sea turtles (*Caretta caretta*): implications for durophagy in neritic, benthic habitats. *Journal of Experimental Biology*, 215, 4166-4174.

Williamson, E. A., Strychar, K. B., Withers, K., Sterba-Boatwright, B. D. (2011). Effects of salinity and sedimentation on the Gorgonian Coral, *Leptogorgia virgulata* (Lamarck 1815). *Journal of Experimental Marine Biology and Ecology*, 409, 331-338.  
[www.elsevier.com/locate/jembe](http://www.elsevier.com/locate/jembe)

Gardner, M. N., Sterba-Boatwright, B. D., Jones, D. R. (2011). LIGATION OF THE LEFT AORTA IN ALLIGATORS AFFECTS ACID- BASE BALANCE: A ROLE FOR THE R→L SHUNT. *Respiratory Physiology & Neurobiology*, 178, 315-322.  
<http://www.sciencedirect.com/science/article/pii/S1569904811002448>

Froeschke, B. F., Sterba-Boatwright, B. D., Stunz, G. W. (2011). Assessing southern flounder (*Paralichthys lethostigma*) long-term population trends in the northern Gulf of Mexico using time series analysis. *Fisheries Research*, 108, 291-298.

Smith, A. K., Sterba-Boatwright, B. D., Mott, J. B. (2010). Novel application of Random Forests for bacteria source tracking analysis. *Water Research*, 44, 4067-4076.

Froeschke, J. T., Stunz, G. W., Sterba-Boatwright, B. D., Wildhaber, M. L. (2010). An empirical test of the "shark nursery area concept" in Texas bays using a long-term fisheries-independent dataset. *Aquatic Biology*, 11, 65-76.

Tarazaga, P., Sterba-Boatwright, B. D., Wijewardena, K. (2007). Euclidean Distance Matrices: Special Subsets, Systems of Coordinates and Multibalanced Matrices. *Computational and Applied Mathematics*, 26, 415-438.

Heinz, K., Sterba-Boatwright, B. D. (2007). The When and Why of Using Proportions. *Mathematics Teacher*, 101, 528-533.

Sadovskii, A. L., Zimmer, B. G., Sterba-Boatwright, B. D., Tissot, P., Bachnak, R. (2006). Analysis of the Gulf of Mexico Coastal and Estuarine Water Levels as Random Signals. *WSEAS Transactions on Mathematics*, 5(11), pp.1234-1241.

#### Peer-reviewed published abstract

Smith, A. K., Sterba-Boatwright, B. D., Mott, J. B. (2009). *The use of a statistical toolbox approach to determine sources of fecal contamination in Cedar Lakes, Texas*. Washington, D.C.: Book of Abstracts/American Society for Microbiology.

## Non-Refereed

### Conference Proceedings

Warner, N. N., Sterba-Boatwright, B. D., Tissot, P., Jeffress, G. A. (2012). Estimated increase in inundation probability with confidence intervals for Pensacola, Florida and Key West, Florida. *Oceans, 2012* (pp. 1-10). IEEE.

Ball, R., Zimmer, B. G., Adams, J., Sterba-Boatwright, B. D. (2007). *ANN predictive water temperature modeling of cold water events in a shallow lagoon* (pp. 7 pages). Proceedings of 87th American Meteorological Society Annual Meeting, Fifth Conference on Artificial Intelligence Applications to Environmental Science.

## Presentations

Wang, H. (Author & Presenter), Sterba-Boatwright, B. D. (Author), Hu, X. (Author), "A new statistical approach interpreting ocean fCO<sub>2</sub> record," Gordon Research Conference on Chemical Oceanography, Gordon Research Conferences, Holderness, NH. (July 26, 2015).

Cai, X., Simons, J., Carollo, C., Sterba-Boatwright, B. D., Sadovski, A. L., "Predicting 3 major shrimp species distribution and abundance across the Gulf of Mexico through different modeling techniques," Texas Bays and Estuaries Meeting, UT-MSI. (April 8, 2015).

Tissot, P. (Author), Rizzo, J. (Author), Williams, D. (Author), "Nearshore Wave and Current Measurements in the Coastal Bend," 2015 Meeting of the Texas Section of the American Shore and Beach Preservation (ASBPA), Texas Section of the American Shore and Beach Preservation (ASBPA), Corpus Christi, Texas. (March 20, 2015).

Warner, N. (Author), Tissot, P. (Author), Sterba-Boatwright, B. D. (Author), "Predicted Inundation Frequencies Due to Relative Sea-Level Rise: Comparison between Texas and Other Gulf of Mexico Locations," 2015 Meeting of the Texas Section of the American Shore and Beach Preservation (ASBPA), Texas Section of the American Shore and Beach Preservation (ASBPA), Corpus Christi, Texas. (March 20, 2015).

Warner, N. N. (Author & Presenter), Tissot, P. (Other), Sterba-Boatwright, B. D. (Other), Jeffress, G. A. (Other), "Storms, Sea Level Rise and Estimated Increase in Inundation Probability with Confidence Intervals for Texas and Florida stations," 93rd AMS Annual Meeting, Austin, Texas. (January 10, 2013).

Warner, N. N. (Author & Presenter), Sterba-Boatwright, B. D. (Other), Tissot, P. (Other), Jeffress, G. A., "Storms, Sea Level Rise and Estimated Increase in Inundation Probability with Confidence Intervals for Pensacola, Florida and Key West, Florida," *Oceans '12 IEEE/MTS*, Hampton Roads, Virginia. (October 14, 2012).

Sterba-Boatwright, B. D., "Presentation on Web Conferencing and Video Recording Software," Math Department Seminar. (September 2012).

Warner, N. N. (Author & Presenter), Sterba-Boatwright, B. D. (Author), Tissot, P. (Author), Jeffress, G. A. (Author), "Storms, Sea Level Rise and Estimated Increase in Inundation Probability with Confidence Intervals for Galveston, Texas," Twelfth International Conference on Estuarine & Coastal Modeling, St. Augustine, Florida. (November 7, 2011).

Cammarata, K. (Author & Presenter), Sweatman, J. (Author), Sterba-Boatwright, B. D. (Author), "Fluorescence Characterization and Nutrient Dose Dependence of Epiphyte Accumulation on

Halodule wrightii," Seagrass Working Group Quarterly Meeting, Seagrass Monitoring Working Group, TPWD, Corpus Christi, TX. (April 2011).

Sterba-Boatwright, B. D., "Markov Chain Monte Carlo Methods," Math Department Seminar, Dept. of Math and Statistics, TAMU-CC, Campus. (April 13, 2011).

Sterba-Boatwright, B. D., "Goodness of Fit for Extreme Value Distributions," Department Seminar, Dept. of Math and Statistics, TAMU-CC. (November 19, 2010).

Cammarata, K. (Author & Presenter), Sweatman, J. (Author), Sterba-Boatwright, B. D. (Author), "FLUORESCENCE CHARACTERIZATION AND NUTRIENT DOSE DEPENDENCE OF EPIPHYTE ACCUMULATION ON HALODULE WRIGHTII," 2010 Gulf Estuarine Research Society Meeting, The University of Texas Marine Science Institute, Port Aransas, TX. (November 3, 2010).

Warner, N. N. (Author & Presenter), Tissot, P., Sterba-Boatwright, B. D., Jeffress, G. A., "Comparison of Extreme Value Statistical Distributions and Implications for Galveston Pier 21," Sea Level Rise 2010 Conference, Harte Research Institute, Corpus Christi, TX. (March 1, 2010).

Smith, A. K. (Author & Presenter), Mott, J. B. (Author), Sterba-Boatwright, B. D. (Author), "The use of a statistical toolbox approach to determine sources of fecal contamination in Cedar Lakes, Texas," American Society for Microbiology General Meeting, American Society for Microbiology, Philadelphia, PA. (May 2009).

Ball, R. (Author & Presenter), Tissot, P., Zimmer, B. G., Sterba-Boatwright, B. D., "Comparison of random forest, artificial neural network, and multi-linear regression: a water temperature prediction case," Seventh Conference on Artificial Intelligence and its Applications to the Environmental Sciences, American Meteorological Society, Phoenix, Arizona. (January 2009).

Ball, R. (Author & Presenter), Tissot, P., Zimmer, B. G., Adams, J., Sterba-Boatwright, B. D., "ANN predictive water temperature modeling of cold water events in a shallow lagoon.," Fifth Conference on Artificial Intelligence Applications to Environmental Science, American Meteorological Society. (January 2007).

Logsdon, S. L. (Panelist), Sterba-Boatwright, B. D. (Panelist), Meyer, P. (Panelist), Jackson, R. S. (Panelist), Blalock, G. (Leader), "Writing Across the Curriculum and First-Year Learning Communities," National Writing Across the Curriculum Conference, Rice University, Houston, TX. (2002).

Meyer, P., Guzman-Hayes, V., Jackson, R. S., Logsdon, S. L., Sterba-Boatwright, B. D., Wooster, R. A., "The Freshman Experience: The Learning Community as the Foundation of Core Curriculum at Texas A&M University-Corpus Christi," Annual Conference of the Washington Center for Improving the Quality of Undergraduate Education and the FIPSE Learning Communities Dissemination Project, Sea Tac, Washington, United States. (May 1999).

Benibo, B. R., Meyer, P., Sterba-Boatwright, B. D., "Voluntary Transethnic Interaction on College Campuses: A Pilot Study of Anglo and Mexican American Studies," National Conference for Hispanic and Latino Studies, Houston, TX, United States. (February 1999).

Logsdon, S. L. (Panelist), Sterba-Boatwright, B. D. (Panelist), Jackson, R. S. (Panelist), Spencer, M. (Leader), Meyer, P. (Panelist), National Learning Communities Dissemination Project, Washington Center for Improving the Quality of Undergraduate Education, Evergreen State College, Olympia, WA. (1996).

Logsdon, S. L. (Leader), Jackson, R. S. (Panelist), Sterba-Boatwright, B. D. (Panelist), "Off the Shelf or Off the Wall?," Annual Conference, Association for General and Liberal Studies, Memphis, TN. (1985).

## **Contracts, Grants and Sponsored Research**

### **Grant**

Sterba-Boatwright, Blair David (Co-Principal), Wetz, Michael S (Principal), Hayes, Kenneth (Supporting), "Long-term water quality trends in central-south Texas estuaries: relationships with climatic variability and land use change," Sponsored by Texas General Land Office, State, \$52,545.00. (October 2016 - April 2018).

Wetz, Michael S (Co-Principal), Sterba-Boatwright, Blair David (Other), Lipp, Erin (Principal), Landing, William (Co-Principal), "Collaborative Research: Heterotrophic microbial community response to dust deposition events," Sponsored by National Science Foundation Biological Oceanography, Federal, \$220,758.00. (April 2014 - March 2018).

## **SERVICE**

### **Department**

Committee Chair, Math Ed Search Committee. (November 2016 - Present).  
Committee Chair, Online Course Approval Committee. (October 2014 - Present).  
Committee Chair, Dept of Math & Stat Promotion & Tenure Committee. (September 2014 - Present).  
(Not really a committee), TA Observations. (November 2014).  
Attendee, Meeting, Graduate Open House. (February 2014).  
Committee Member, Statistics Search. (September 2012 - May 2013).  
Committee Chair, Undergraduate Program Review. (September 2012 - May 2013).  
Committee Chair, Assessment. (September 2010 - October 2012).  
Attendee, Meeting, Graduate Open House. (March 2012).  
Committee Chair, Math Instructor Search Committee. (March 2011 - May 2011).  
Represented Department at Graduate Open House. (February 2011).  
Volunteer, Graduate Fair, Fall, 2010. (October 2010).

### **College**

Committee Member, S&E Promotion and Tenure Committee. (September 2015 - Present).  
Committee Member, S&E Continuity of Learning Committee. (June 2015 - Present).  
Volunteer, not called, S&E Grade Appeals Committee. (September 2014 - November 2014).  
Organizer, Bayesian Interest Group. (June 2014 - October 2014).  
Committee Member, Life Sciences Chair Search Committee. (April 2011 - December 2011).

### **University**

Committee Member, University P&T Committee. (September 2012 - August 2015).  
Committee Member, Faculty Core Curriculum Committee. (December 2013 - August 2014).  
Committee Member, Emerging Research Institution Task Force. (October 2011 - December 2012).  
Guest Speaker, TAMU-CC Faculty Symposium. (September 2011).  
University Senate Service, Faculty Senate. (September 1998 - August 2002).

## **Public**

Guest Speaker, Museum of Science and Technology. (January 2015).

Discussant, TAMU-CC Chemistry Club. (April 2014).

Unpaid consultant, SeaCity Crossfit Gym. (January 2014 - March 2014).

Guest Speaker, KEDT. (February 2014).

Assisted reporter with probability calculations for a story, Corpus Christi Caller Times. (August 2011).

Guest Speaker, Baker Middle School Honor Students. (February 2011 - March 2011).