



## Statistics Seminar

### *Shelly Forsythe: Seeding Statistical Reasoning Through Interaction with Ecological Variation*

**Friday, March 29, 2019**

**12:00 – 1:00 PM DERR 339**

**Abstract:** The layers of variation encountered during ecological field investigations can create learning opportunities to seed elements of statistical reasoning, even for young students. This talk will examine the synergistic development of ecological and statistical practice of middle school students who investigated the ecology of a local creek. We will also look at open questions about (a) how current science education standards position PK-8 students to make decisions about data construction, (b) activities that might scaffold students' perception of sources of variation, and (c) potential ways to leverage student-generated ecological data to engage in informal inferential reasoning.

**Michelle (Shelly) Forsythe** is an Assistant professor of STEM Education in the Department of Curriculum and Instruction at Texas State University. She received her Ph.D. in Teaching, Learning, and Diversity with a Specialization in Math and Science Education from Vanderbilt University. Dr. Forsythe studies the design of learning environments that productively structure EC-16 students' ecological fieldwork as well as practical ways to advance elementary STEM education. Dr. Forsythe is also a member of a multi-university team that is developing a research-based framework for video analysis and professional noticing in science teacher education as well as a member of a local TXST team looking to establish a Center for Nature Research in the social sciences.