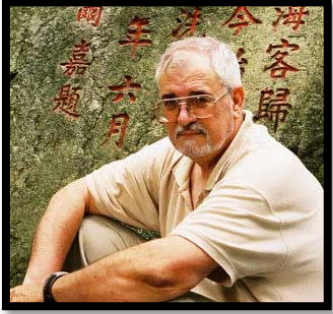


BioFrontiers - Biology Seminar

October 16, 2020; 3:00 PM

Zoom Meeting: <https://unt.zoom.us/j/98067606539>



Dr. William R. Miller

Director of Research, Department of Biology
and Chemistry, Baker University

Tardigrades: a Phenotypic Animal in a Molecular World

Tardigrades or Water Bears are the most enduring extremotolerant organisms recorded, yet one of the least studied groups. This phylum of microscopic, multicellular animals is composed of some 1,340 species found in almost all habitats, including being the most conspicuous in Antarctica. They represent an ancient evolutionary line somewhere between the nematodes and the arthropods. Dr. Miller will share his experience working with tardigrades for over 50 years, how they relate to the real world by discussing the current social exposure, space flight, and DNA discoveries, including the phenotypic features of this group. He will show the recent changes in the phylogeny and the characters used in the taxonomy and how easy it is to study this mysterious animal but so hard to identify species. He will share his passion for their biogeography, describing new species, working on a new monograph, and defining how they move from continent to continent. He will tell stories of working with aspiring scientists and how to sample them at the tops of the tallest trees and from the feathers of birds. The presentation will be spiced up with many of his own Scanning Electron Microscope images and he will suggest several areas for research of this neglected taxa.

