

## 2018-2019 Outstanding Thesis Award Winner Bryan Castillo



*Bryan Castillo, M.S. in Earth and Environmental Sciences*

Castillo's thesis, *Ages of Prehistoric Earthquakes on the Banning Strand of the San Andreas Fault, Near North Palm Springs, California* broke new ground in the field of earthquake geology. Written for his MS in Earth and Environmental Sciences, his study focuses on measuring prehistoric earthquakes on the Banning strand, one of three subparallel strands of the San Andreas Fault located within the northern Coachella Valley. His work documented eight prehistoric earthquakes in the past 7000 years, providing the first published data on the Banning strand. In his thesis, he estimates that the average interval between the five most recent events is 640 years, "indicating that this strand is overdue for a large earthquake." His results will be used by other scientists to update seismic hazard models for southern California.

Castillo's interest in earthquake geology began with a geology course at Cal State Northridge. After earning his B.S. in Geology, his mentor, Dr. Doug Yule, encouraged him to continue his studies under the guidance of Sally McGill at CSUSB.

"Dr. Yule encouraged me to attend graduate school to expand my experience, and recommended Sally McGill at CSUSB. She was one of the primary people I wanted to work with; she's one of the top geologists and seismologists in Southern California. I met with her when I was exploring schools, and when she told me the San Andreas Fault ran right behind the school, I was ready to sign up!"

Castillo has presented his work at a number of professional conferences, including the Geological Society of America and the American Geophysical Union. He is currently working on publishing his research in a peer-reviewed journal. His work was funded by the U.S. Geological Survey. He now serves as an instructor at CSUSB.

"I love teaching – it's a fantastic experience. Ultimately, I plan to go back to school to get a Ph.D. and continue to teach and do research at a university."

Castillo's thesis is available on CSUSB ScholarWorks. We look forward to hearing more about his achievements in the coming years.