

The Coastal Waters Consortium Presents:

Scientist Spotlight



Dr. Xiaoben Jiang

What is your educational background?

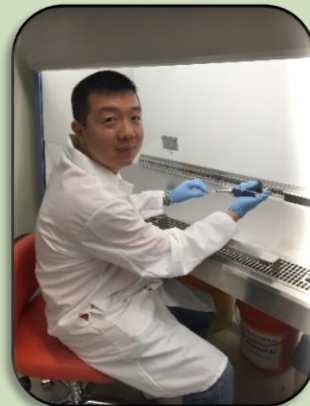
I received my Ph.D. degree in Biology from University of New Mexico. I am now working as a postdoc with Prof. Annette Engel, at the Department of Earth and Planetary Sciences, University of Tennessee.

What inspired you to become a scientist?

I have been enthusiastic about biology since I was 4 years old. My father was an environmental engineer and collected samples for his research almost every week at that time. He always took me to the field with him. I also collected my "own samples" (e.g., leaves, ladybugs, snails). I have been an active member in school biology club since my primary school time. Naturally, I chose biology major for my undergraduate and graduate studies. I think I am destined for a career in biology.

Can you describe what you enjoy the most about conducting scientific research?

As a scientist, you always need to keep up with the latest research in your field. I am excited to learn new knowledge every day. Also, communication and collaboration are important to modern scientists. I personally like the experience in the intra/inter-disciplinary collaboration very much and you can always foster new research ideas.



What is your role as a scientist for CWC?

I am a microbial ecologist and I investigate how diversity and functions of marsh microbial communities in the Gulf of Mexico change in response to oil contamination from the Deepwater Horizon spill.

Can you summarize your oil spill research and describe any surprising findings you have come across?

I study disturbances of microbial communities under long-term (on the order of years), environmental stressors due to oiling of marsh soils such as vegetation die-off, vegetation species changes, and land loss due to erosion. Our preliminary results suggest that the marsh microbial communities exhibit a discontinuous regime shift, such that community compositions and functions shifted to an alternative "stable" state rather than reverted to the original state.

The Coastal Waters Consortium's mission is to assess the chemical evolution, biological degradation, and environmental stresses of petroleum and dispersant within Gulf of Mexico coastal and shelf ecosystems.