

The Coastal Waters Consortium Presents:

# Scientist Spotlight



## Dr. Ariella Chelsky

### What is your role as a scientist for CWC?

I am a postdoctoral researcher at the Louisiana Universities Marine Consortium in Dr. Brian Roberts' lab. My focus is the biogeochemical effects of the Deepwater Horizon oil spill on the salt marshes along Louisiana's coast. I conduct research in the lab and the field, analyze and interpret the results, and prepare the findings for publication in scientific journals.

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

I research the impact of the Deepwater Horizon oil spill on biogeochemical processes in Louisiana salt marshes. My main focus is on aspects of nitrogen cycling and greenhouse gas production. Five years after the DwH spill, we still see differences in greenhouse gas production between sites that were hit by oil and sites that were not oiled. However, many processes are quite resilient and are not different between oiled and unoiled sites. Other factors in the marsh also help to explain the data, like the composition of the soil, salinity, and marsh elevation. We are now working on compiling long-term data on the marsh so we can better understand how processes change from year to year, due to natural variation as well as in response to the spill.

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.

### What is your educational background?

I completed a B.Sc. at the University of British Columbia (Vancouver, Canada) with a major in marine biology. In May 2015 I finished my Ph.D. in marine ecology and biogeochemistry at Griffith University (Gold Coast, Australia).

### What inspired you to become a scientist?

I have always loved the marine environment. As a kid I was fascinated by the rocky intertidal zone and all the creatures in tide pools. I started university with a major in microbiology and immunology but after my first year I transferred to the marine biology major. I couldn't resist the opportunity to study the ocean full-time. I'm definitely happy with that decision now!

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

My favorite part of research is being able to investigate how the marsh functions, and I'm always learning something new. I also love doing fieldwork out on the marsh, even if I'm usually waist-deep in mud, and I work with a great team of scientists who always keep things interesting.

