

The Coastal Waters Consortium Presents:

Scientist Spotlight



Jessica Johnson

What is your educational background?

I studied biology as an undergraduate at Tufts University in Medford, Massachusetts. I hope to complete my Master's degree in Oceanography & Coastal Sciences in August 2017 (LSU).

What inspired you to become a scientist?

I think that, like many people, my earliest inspirations came from my natural environment. I was fortunate enough to have access to both the wonderful coast of New England and a lot of books which revealed natural mysteries beyond my world at hand. My childhood curiosity never gave way to anything stronger. Science can be an intimidating field to stake a career in, but for me nothing will be as satisfying as asking questions about nature.

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

I enjoy working in scientific research because it keeps me thinking. There's always another problem to solve, whether it be how to use an instrument, which samples to collect in the field, or how to analyze the data that you produce. In science, you can't take anything for granted and you always have to justify why you do something or interpret something the way you did.



What is your role as a scientist for CWC?

As a graduate student research assistant, I work with a team of scientists who study the salt marsh food web in Barataria Bay, Louisiana. I help collect plant and animal samples in the field and then analyze them in the lab. The research I completed for my Master's degree will help solve a piece of the food web puzzle.

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

I am trying to understand how energy flows from the base of the food web up to all the various creatures that use the salt marsh. Salt marshes have a lot of energy stored up in the grasses and other plants which hold together the marsh surface. Scientists have been wondering whether this plant energy makes its way into aquatic animals, like brown shrimp and blue crabs. The results of my work suggest that plant energy is not very important for aquatic species which instead depend on energy from algae.

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.