

Scientist Spotlight



Dr. Nancy Rabalais

What is your role as a scientist for CWC?

I hold the role of Principal Investigator/Project Director. I am responsible for the design of the research program, the coordination of efforts, and the delivery of research results to scientists and the public. This is done in collaboration with the researchers and an executive committee for guidance. I also have investigator responsibilities for studies of marsh invertebrates, subtidal invertebrates, microphytobenthos, and effects of the *Deepwater Horizon* oil spill on offshore oxygen dynamics and phytoplankton dynamics.

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

What we have found is that some oil compounds have reached near background levels after 5 years in Louisiana marshes. Some of the more toxic forms have not reached background levels. Marsh shorelines that have been oiled are eroding at a faster rate than average shoreline erosion rates in the same geographic areas. The oil exposure has changed over time so that some areas that may have been oiled do not test as heavily oiled now, but other areas may have been exposed to resuspended and transported oil compounds. The variability of the macroinfauna in the marshes and in the subtidal waters is great, and early analysis is confounded by multiple effects. The effects of the oil spill were minimal on hypoxia in 2010. Similar analyses of the oil spill with phytoplankton communities show some effects for some taxa and not others.

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 was a college student who worked her way through college. I received my Associate degree from Del Mar College in Corpus Christi, Texas. I continued at a regional university, Texas A&I University, Kingsville, for my B.S. and M.S. in Biology.

What inspired you to become a scientist?

My 8th grade and 10th and 12th grade biology teachers engaged me in biology. My undergraduate and master's degree studies and courses placed me in multiple marine and coastal habitats of the Texas coastal bend. I began SCUBA diving and collecting specimens for my research. I embraced the natural history of the south Texas area. My first 'paying' job was identifying marine invertebrates in mud samples from the South Texas continental shelf. This led to multiple publications, then my desire to get my Ph.D., which I did in 1983 from the University of Texas in Zoology, with emphasis on Marine Science and studies at the Port Aransas Marine Laboratory, Texas. I moved to LUMCON because of my knowledge of benthic communities of the Gulf of Mexico, and have progressed into many research areas since then.

