

The Coastal Waters Consortium Presents:

Scientist Spotlight



Dr. Stefan Woltmann

What is your educational background?

I earned my Bachelor's degree at the State University of New York (SUNY) College at Purchase, my Master's degree from the University of Southern Mississippi, and my Ph.D. from Tulane University.

What inspired you to become a scientist?

As a kid growing up in New York City, we were very lucky to be able to spend a lot of time on weekends outside of the city, where my dad would take us "fishing." Fishing was never just fishing: we'd also spend time in the woods looking under logs, or spend time in the shallows of a pond with a dip net, or spend time just hiking and exploring. After a while we didn't even bring a rod and reel anymore. What inspired me to become a scientist was my experience as a college student, where I learned just how much there was to learn about organisms beyond being able to identify them. I had sort of assumed we know much more than we actually do.

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

I love the sense of the unknown, and the opportunity for discovery. I love that my "office" is not infrequently outside. I love that conducting scientific research forces me to look at the world around me from many different perspectives. Understanding bird ecology in any kind of depth is simultaneously the most rewarding and frustrating thing I do. It's a lot of problem solving from all angles, but it's especially rewarding when you get to work with people from lots of different backgrounds and disciplines. You never stop learning stuff when you do research – and every project leads to other new and interesting research. Good research answers beget good new research questions.



What is your role as a scientist for CWC?

I collaborate with other PIs on the marsh vertebrate component of CWC. I am an avian ecologist by training, and we and our students have been studying Seaside Sparrow populations.

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

We've learned that Seaside Sparrows were certainly impacted by the Deepwater Horizon oil spill: in the first few years, population numbers were down, birds showed evidence of sub-lethal exposure to oil, and nest success certainly seemed to be reduced. What's surprising is how little is known about the long-term effects of an oil spill on marsh birds in general. As we move forward, we have a much better sense that we need to understand how the salt marsh ecosystem behaves overall from season to season, and from year to year if we're to have any real chance at understanding how single events (e.g., oil spills, storms, wet vs. dry years, etc.) affect these populations. It's an incredibly dynamic system that these birds have evolved in, and understanding how one particular event (in this case the Deepwater Horizon spill) influences marsh bird populations in time and space dictates that we understand *all* the other things that affect these bird populations.

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.