

Project Spotlight

Dr. Stefan Woltmann

Assistant Professor
Center of Excellence for Field Biology
Austin Peay State University



What is the topic of your research within the CWC?

I work with the group that wants to know how the DWH spill may have affected birds and mammals of the salt marsh. We study the Seaside Sparrow because it is 100% dependent on salt marsh. We've been monitoring nest success of Seaside Sparrows since 2012. The oil may have affected the insects and other things that Seaside Sparrows eat, and that might affect their ability to successfully raise young.

What methods are you using to answer your questions?

Our field crew spends nearly every day (weather permitting!) out in the marsh for four months each spring finding and monitoring Seaside Sparrow nests. It's difficult work: Seaside Sparrows make their nests out of grass...and hide them in the grass. Once nests are found we map them using GPS, and carefully check them every few days to track their progress from eggs to nestlings to fledglings.

What results have you gotten thus far?

We have found that nest survival on plots that did not get oiled has been a little bit higher than on oiled plots, and this has been true for all five years we've looked at. Predation is the main reason nests fail: predators either eat the eggs or the nestlings.

Did any of these results surprise you?

What has surprised me is just how many nests fail due to predators. It's probably normal, but nobody has studied their nest success in Louisiana. Nest success varies quite a bit from year to year; there definitely are "good" years and "bad" years out there. We learned from some preliminary trials with video recording of nests that both rice rats and minks are probably important predators.

What are the next steps in your research?

Our next steps are to (1) continue monitoring in 2017, (2) try to figure out who the main predators of these nests are, and (3) finish up formal analyses on what influences nest success.

What are the "big picture" implications of your study?

Seaside Sparrows were certainly impacted by DWH, especially in the first years after the spill. From a "Big Picture" perspective, southeast Louisiana likely has the largest population of Seaside Sparrows along the Gulf Coast; it was the most likely population to rebound. Other populations around the Gulf are much smaller, and could have been completely wiped out by a spill of this magnitude.

