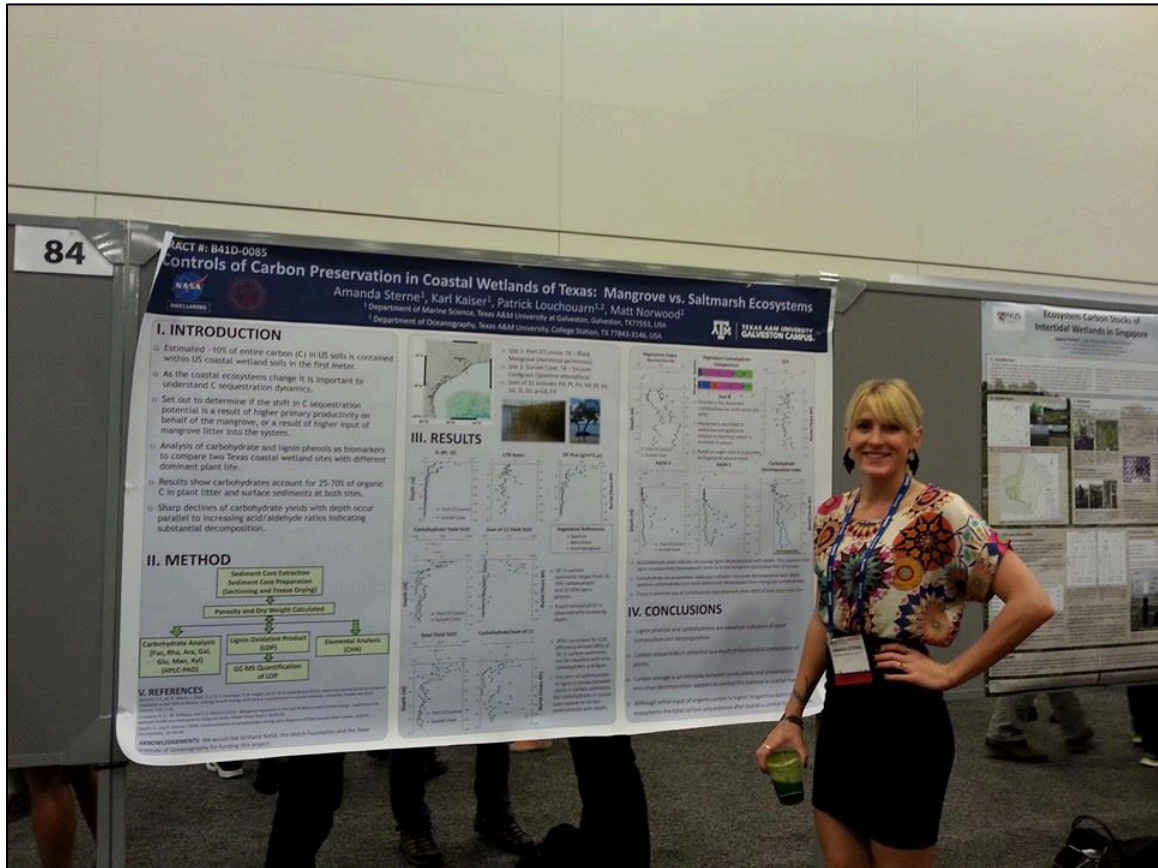


Amanda Sterne

Controls of Blue Carbon Preservation in coastal Wetlands of Texas: Mangrove vs. Saltmarsh Ecosystems



This project takes a closer look at how the chemical composition of two plant types, Black Mangrove (*Avicennia germinans*) and Smooth Cordgrass (*Spartina alterniflora*), control carbon sequestration in coastal wetland ecosystems. It is estimated that about 10% of total carbon (C) in US soils is contained within the first meter of coastal wetland soils; highlighting their importance. These two ecosystem types are common to the Texas coastline and as they shift it is crucial to understand the dynamics that control overall carbon storage. Carbohydrates, lignin phenols, amino acids and cutin acids are utilized as biomarkers and allow us to compare these two sites and their differing plant types.