

## **Abstract**

The state of Florida has access to vast marine life resources. The Florida marine commercial fishery plays a significant part in the state economy. Hundreds of thousands of commercial fishing trips occur each year totaling hundreds of millions of dollars in dockside value. Because of the weight of the commercial fishery in the state's natural resources, sustainable management is critical. In 1976, the Magnuson-Stevens Marine Fisheries Management and Conservation Act outlined a federal plan for the management of the United States marine resources. The Gulf of Mexico Fisheries Management Council worked with Florida to develop the Florida Marine Fisheries Trip Ticket Program (TTP), to fulfill the mandate to record all licensed commercial landings in the state. TTP landings summaries are available to the public via a web application hosted by the Florida Fish and Wildlife Conservation Commission. These summaries contain a wealth of data in tabular format.

This thesis aims to create a web GIS (The Landings Explorer) of the landings summaries data, to increase accessibility and provide spatial and temporal insight to fishery stakeholders and the general public. By creating widgets and user controls in the ASP.NET Landings Explorer and the Esri JS API v4.x, a user is able to select any species and year from the landings summaries data and render a web map with classes derived from each of the data attributes within these summaries. The application strives to provide fishermen, seafood processors, restaurateurs, and other stakeholders with insights about the commercial fishery to aid in economic and conservatory decision making. By developing the Landings Explorer with the responsive web frameworks, Calcite Maps and Bootstrap, the application seeks to allow users to access this data on any internet connected device from dockside to the kitchen.