Robert Ruiz

Major: Marine Biology

Department of Biology and Environmental Science

Mentor: Dr. Zajac

Responses of Nekton to Climate and Anthropogenic Related Changes in Long Island Sound Salt Marshes

The purpose of this study was to better understand how nekton are using salt marshes in the face of climate and anthropogenic related changes. Knowing how nekton respond to such changes will allow for better coastal management, fisheries protection and conservation. Two salt marshes in Branford Connecticut were sampled, Pleasant Point and Banca. Throw net sampling and underwater cameras were used to collect data. Analysis of the data showed that nekton usage of the two salt marshes and multiple habitats was not different. *Fundulus heteroclitus* was the dominant fish found, and would likely be the most resilient to habitat loss. *Fundulus majalis* was only found in the front portion of both marshes in video footage. This could indicate they may be vulnerable to loss of this front portion of the marshes. Further research needs to be done over time to look at seasonality of nekton use of the salt marshes.