

## **2016 Florida Sea Grant: Impacts of stock spatial structure and connectivity on the stock assessment and management of Caribbean spiny lobster stocks**

### **Objectives**

One of the main goals of this project is to use Caribbean spiny lobster (*Panulirus argus*) as an example to evaluate the impact of stock spatial structure on stock assessment. The essential goal of this project is to evaluate efficacy of local management strategies, as well as those in upstream Caribbean countries on the spiny lobster population dynamics, especially for the southeast U.S. stock. To achieve this objective, seven steps need to be completed:

- Design a meta-population framework for spiny lobster stocks.
- Derive connectivity scenarios.
- Assess bias and uncertainty of stock assessment models.
- Develop an operating model.
- Identify management strategies.
- Evaluate management strategies.
- Identify effects of spatial structure and connectivity on the spiny lobster fishery management.