



## CONTINENTAL SHELF CHARACTERIZATION, ASSESSMENT, AND MAPPING PROJECT

### OBJECTIVES



- Provide high resolution bathymetric maps of the **West Florida Shelf (WFS)** in the Gulf of Mexico.
- Use a combination of **multibeam sonar** and underwater **towed camera** footage to define and characterize the geological and biotic habitat in mapped areas.
- Provide a non-invasive and non-lethal method for surveying economically important reef fish species in the Gulf of Mexico using towed camera footage and acoustic data.
- Develop fish **auto-recognition** software to more efficiently analyze data.



### C-BASS (Camera-Based Assesment Survey System)

The C-BASS is a towed underwater camera system used to visually survey benthic habitat and estimate reef fish abundance along the WFS. It serves as a useful technology in untrawlable habitats that are rich in economically valuable species.



### EK60 Echosounder

Water column acoustic data are used in conjunction with towed video collected by the C-BASS. Pairing these datasets allows scientists to better estimate reef fish densities over various habitats.



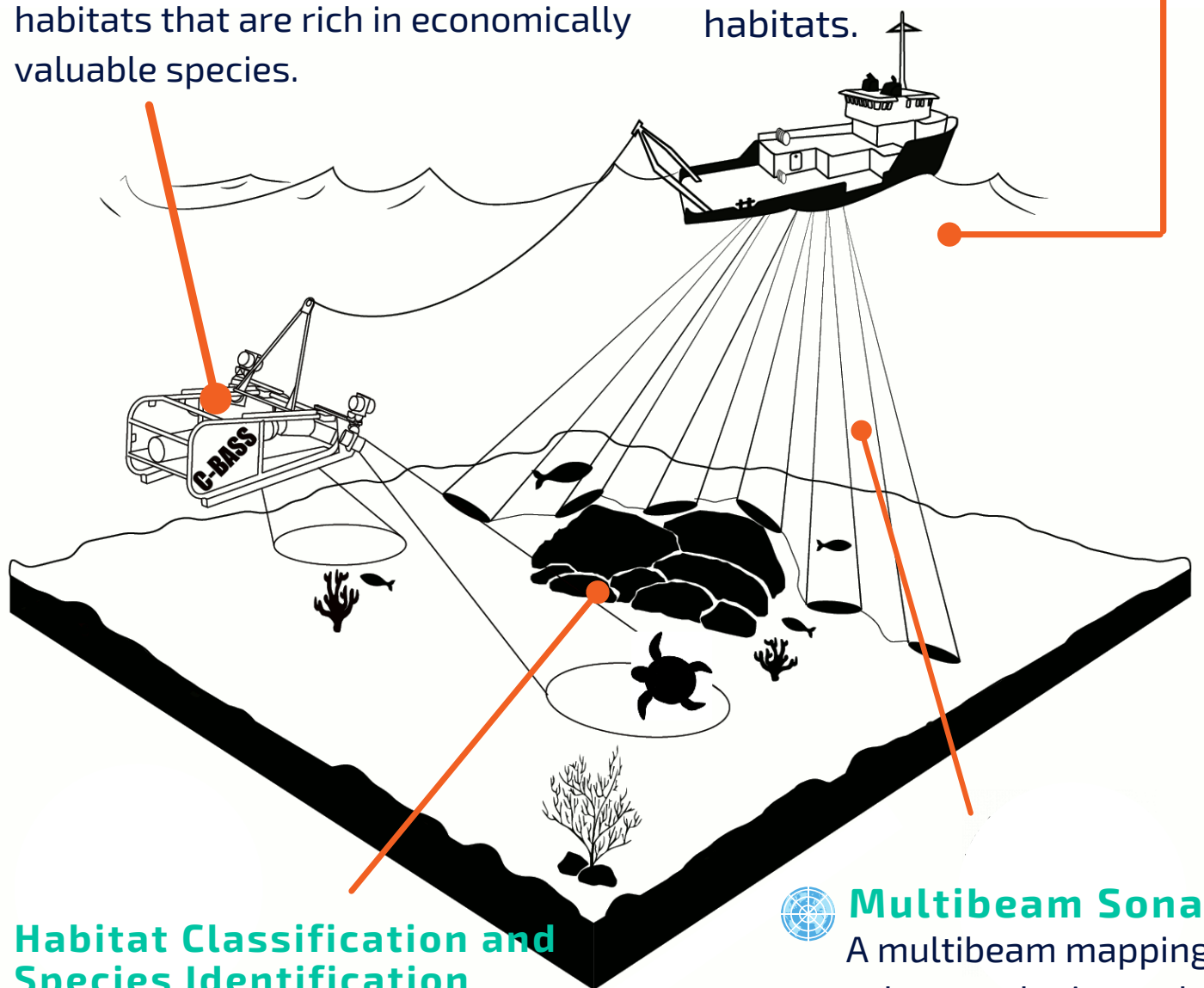
### Habitat Classification and Species Identification

C-BASS footage is used by fisheries biologists to classify benthic habitats and enumerate reef fish species which provides a supplemental method for fisheries surveys.



### Multibeam Sonar

A multibeam mapping echosounder is used to provide high resolution bathymetric and backscatter maps of the West Florida Shelf, which provides important baseline information for mapping and characterizing the seafloor.



Pre C-SCAMP

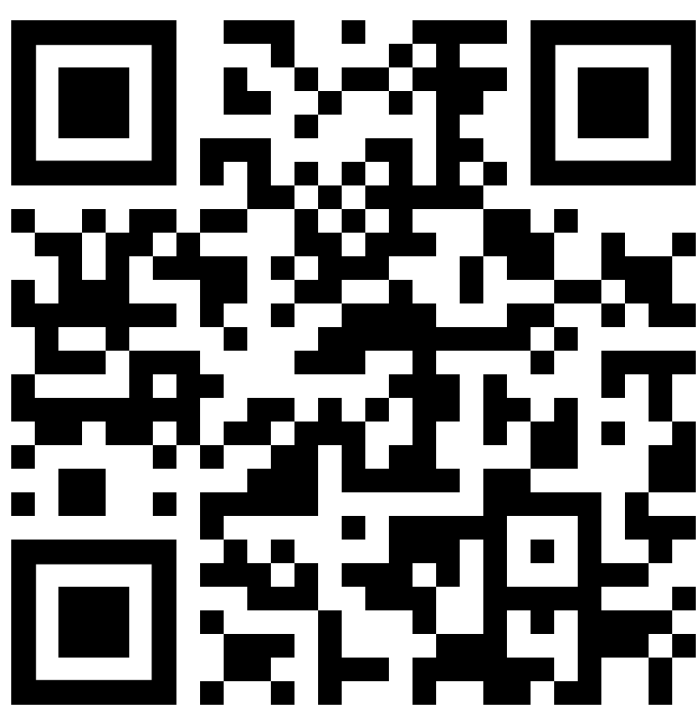
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Post C-SAMP

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## PUBLICATIONS

“What’s Underneath it All?” by Sarah E. Grasty. *Guy Harvey Magazine*. Fall 2018 Issue. pgs 64 – 69.

Murawski, Steven. “Habitat Mapping and Characterization on the West Florida Shelf.” April 2018. Presentation to the Gulf of Mexico Fisheries Management Council, Gulf Scientific & Statistical Committee.

Grasty, S. “How many fish are really in the sea?: Estimating Reef Fish Abundance Using Underwater Video Data for Improved Fisheries Management.” *The Science Teacher*, April/May 2020 Issue. The National Science Teaching Association (NSTA).

“Just Call Us the Fish Paparazzi.” by Sarah Grasty. Ocean Currents Blog. Ocean Conservancy. 18 August 2017.  
<<https://oceanconservancy.org/blog/2017/08/18/just-call-us-fish-paparazzi/>>



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**C-SCAMP Videos**