Research to expand knowledge of fish populations in a post-oil spill gulf

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Marine scientist Kevin Boswell and his students use a remote-controlled autonomous survey vessel to characterize the habitats and water quality of coastal waters.

Kevin Boswell is on a mission to restore the health of the Gulf of Mexico as it continues to recover from the 2010 Deepwater Horizon oil spill.

The marine scientist was recently awarded a grant by the Florida Institute of Oceanography's Florida RESTORE Act Centers of Excellence Program to study deep reef fish communities impacted by the oil spill. He was one of 10 researchers from across the state selected

to help improve the health of the Gulf of Mexico and fortify its ecosystems through his research.

Reef fishes are iconic symbols of Florida's marine ecosystem. They are also important to the state's economy, as the value of marine fisheries has surpassed citrus as the second largest economic engine behind tourism. Reef ecosystems, however, have been negatively impacted by sedimentation, lack of oxygen, algal blooms, invasive lionfish populations, and human-made events. Boswell's Fisheries Ecology and Acoustics Lab will use sonar technologies and remotely operated vehicle technologies in the waters off northwest Florida to collect data that will provide baseline information needed to evaluate impacts to the gulf.

"One of the things that hit us in the face when the oil spill occurred was the lack of knowledge on the Gulf of Mexico as an ecosystem on a broad scale," Boswell said. "This is an exciting opportunity to interface two technologies in a novel way that will allow us to interpret acoustic data with video data."

By better understanding the diversity of organisms in the reef fish community structure, the study will address fundamental questions of reef fish ecology, fill data gaps for the assessment and management of recreationally and commercially important species, and create new baselines to asses the impacts of future human-made events.

Provided by Florida International University