

Coral off Puerto Rico's coast 'ideal case study' for Gulf oil spill's impact

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UCF Biologist John Fauth studies threatened coral off the coast of Puerto Rico. Credit: Edwin Hernandez, Center for Applied Tropical Ecology and Conservation, University of Puerto Rico

Coral living off the coast of Puerto Rico may provide researchers valuable information about the potential impact of the Gulf of Mexico oil spill.

University of Central Florida biologist John Fauth, National Oceanic and Atmospheric Administration (NOAA) scientists and non-governmental agencies are studying the threatened Elkhorn [Coral](#) in the Vega Baja area of Puerto Rico.

While most of the area appears healthy, some coral are suffering from

algal overgrowth and disease - problems similar to those the [oil](#) spill could cause off the coast of Florida. Sediment from a nearby construction site and runoff from storm sewers are potential causes for the harm to coral off Puerto Rico's coast.

Fauth says that the same techniques the team used to study the health of the reefs in Vega Baja will be used to determine the impact of the oil spill in the Gulf.

Scientists collect multiple samples that provide information about the enzymes present and the [chemical signature](#) of contaminants found within the coral. Scientists then can determine if there is damage to the coral's cells and analyze sediment samples to learn what contaminants are present on the [sea floor](#).

"Our site provides an ideal case study for an environmental assessment that pinpoints probable stressors for coral and determines their source," Fauth said.

The process is time consuming, and each dive includes a long regimen to ensure researchers don't add to the problem.

"Before sampling, our team showered with laboratory soap and did not use any personal care products -- for example, sunscreen -- that could show up in contaminant analyses," Fauth said. "We also cleaned all of our dive gear with lab soap."

It's a comprehensive approach that researchers in the Gulf will likely duplicate as they search for answers, Fauth said.

The cross-disciplinary team included researchers from NOAA, the National Marine Fisheries Service, the universities of Central Florida and Puerto Rico, Haereticus Environmental Lab, and Grupo V.I.D.A.S.

(Vegabajeros Impulsando Desarrollo Ambiental Sustentable).

Provided by University of Central Florida

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