

Quantifying the potential impacts of oil and gas infrastructures on cold-water corals and sponges in the northern Gulf of Mexico

Danny Khor, Julia Tiplea, Amy Oxton, and Vincent Lecours

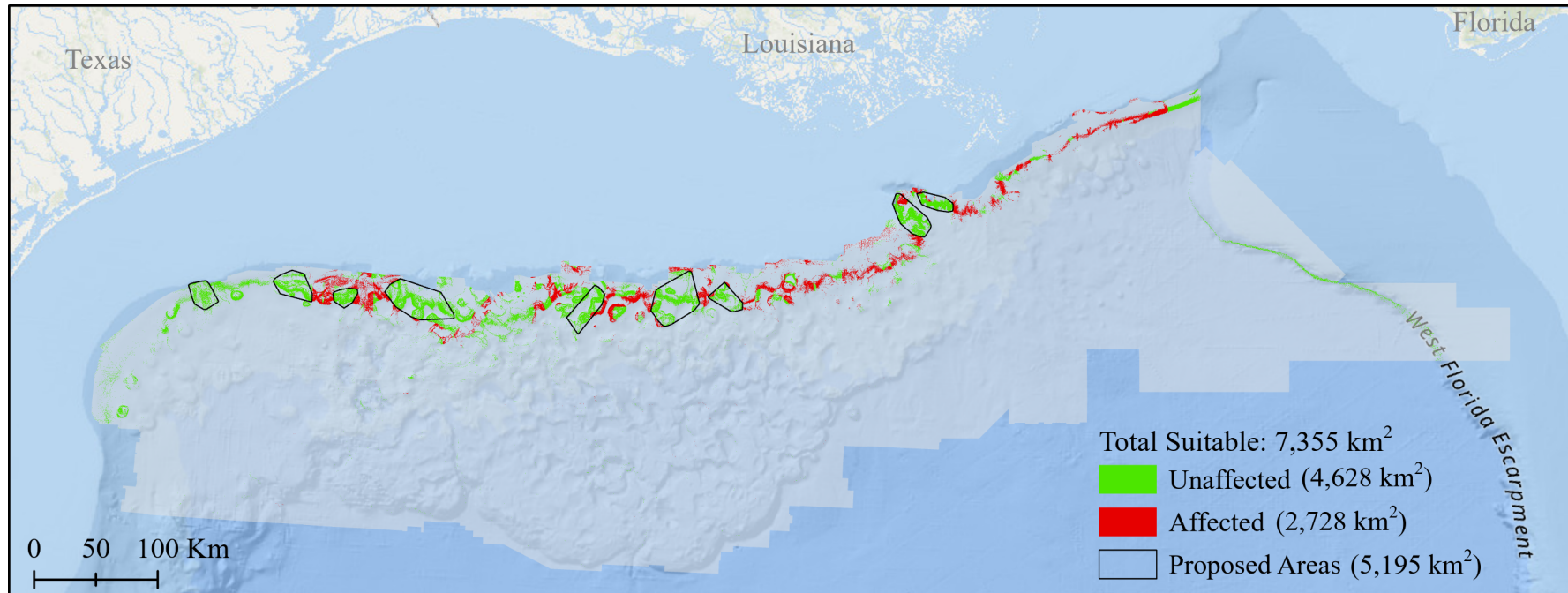
School of Forest, Fisheries, and Geomatics Sciences, University of Florida

Objectives: (1) Identify potential cold-water coral & sponge habitats that are the most vulnerable to impacts from oil & gas infrastructure, (2) Identify suitable areas for future conservation.

- 1 ~233,000 km² bathymetric grid used to derive quantitative seafloor characteristics
- 2 Derived terrain attributes + coral and sponge presence data → 11 species distribution models

- 3 Oil and gas pipeline data were laid over summary of 11 SDMs; impact of infrastructure assessed

- 4 **Findings:**
 - ✿ Oil & gas infrastructure could impact up to 69,897 km² of seafloor across the Gulf, including 2,728 km² (or 37.1%) of suitable CWCS habitat identified by our summary SDM
 - ✿ 9 areas at least 4 km away from infrastructure and >100 km² (totaling 5,195 km²) hold potential for successful conservation



SCHOOL OF FOREST,
FISHERIES, AND
GEOMATICS SCIENCES



NOAA
DEEP SEA CORAL
Research & Technology Program

BOEM
BUREAU OF OCEAN ENERGY MANAGEMENT