

FAU Researchers to Study Carbon Dynamics of the Greater Everglades and Implications of Climate Change

BOCA RATON, Fla. (March 11, 2013) – Florida Atlantic University researchers Brian Benscoter, Ph.D., and Xavier Comas, Ph.D., have been awarded \$570,000 from the U.S. Department of Energy to serve as collaborators for research related to carbon cycling and climate change in Florida's Greater Everglades.

Benscoter, assistant professor in the department of biological sciences at FAU's Davie campus, will examine how plant communities respond to their environment, particularly changes in temperature and water availability, to help evaluate regional carbon cycling in the Greater Everglades in a changing climate.

"The Greater Everglades, like many subtropical and tropical wetland watersheds globally, are of vital importance in terms of both their intrinsic ecological importance as well as their services that support neighboring, dense human populations," said Benscoter. "The carbon-rich soils of the Everglades have the potential to significantly influence the global climate, so understanding how the ecosystem may respond to changes in environmental conditions is of great importance."

Comas, an assistant professor in the department of geosciences at FAU, will use surface geophysical methods, including ground penetrating radar, to investigate patterns of accumulation and release of methane and carbon dioxide in soils and estimate the below-ground soil carbon storage in the Greater Everglades watershed.

"With these measurements we hope to achieve a better understanding of carbon availability at different scales of measurement and biogenic gas dynamics and gas flux patterns in different environments across the Greater Everglades Watershed," said Comas. "The project will help us to better define the balance between carbon accumulation and losses in the Greater Everglades, and how disturbances such as climate change may potentially impact such a balance."