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# Professor wins National Science Foundation grant for Everglades research

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Joseph M. "Donny" Smoak,  
Ph.D., associate professor  
of environmental science

Joseph M. "Donny" Smoak, Ph.D., associate professor of environmental science, has been awarded a [National Science Foundation grant](#) for research in [Everglades National Park](#).

The \$168,582 grant is part of the [National Science Foundation's Water Sustainability and Climate program](#).

Dr. Smoak will examine soil deposits in the mangrove forests of the park to determine the rate of organic carbon burial.

“The burial of organic carbon in wetlands represents carbon that is prevented from entering the atmosphere as carbon dioxide, a greenhouse gas, and further enhancing the warming of our planet that is already occurring,” Dr. Smoak explained. “As the climate warms and sea level rises, some wetlands could be lost and release large quantities of previously buried carbon into the atmosphere. We will collect 16 soil cores from Everglades National Park in order to determine the burial rates.”

The research will help scientists better understand how coastal wetlands respond to sea-level rise and climate change.

His research is part of a large collaborative effort in the Everglades involving scientists, social scientists, and economists from [Florida International University](#), [University of Florida](#), [University of Miami](#), [Florida State University](#), [Penn State](#), [University of Hawaii](#), and the [Wharton School of Business at the University of Pennsylvania](#).

“This project exemplifies how basic scientific research can address important human problems and the award from NSF speaks to the high quality of USFSP’s faculty scholarship,” said Norine Noonan, Ph.D., vice chancellor for academic affairs.

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