Christine Hladik, Ph.D., assistant professor of Geography at Georgia Southern, and Clark Alexander, Ph.D., director of Georgia Southern’s Applied Coastal Research Laboratory, were recently featured in various national publications, including the Washington Times, for their research on how rising sea levels will affect the Georgia coast and beyond in years to come.

“Our study provides a new level of remotely sensed detail that has never before been available for marsh distribution and health, as well as future projections of how these valuable resources may be altered with sea level rise,” said Hladik. “Further, our research has generated new, critical information on tidal river salinities, tidal fresh-, brackish- and salt-marsh marsh habitat coverage, and coastal elevations.”

Clark added this research is not only important to the Georgia coast, but will be applicable from Florida to Virginia, and provide guidance to similar coastal settings around the U.S. and the world, including the Gulf Coast, Mediterranean Sea and from England to Africa.

“Marsh sustainability is a question of national importance because marshes are critical nursery habitats for many commercial (e.g., shrimp, crab) and recreational (e.g., some sport fish) species, they provide storm protection to uplands and they absorb many pollutants (e.g., excess nutrients, heavy metals) from the mainland,” said Clark.

In addition, Hladik said their research is focused on correcting inaccurate wetland elevations previously recorded with laser-sensing technologies (LIDAR).

“Techniques developed in this project for correcting inaccurate LIDAR wetland elevations will have worldwide application wherever low-lying marshes are found,” she said. “These improved data sets enable a more accurate prediction of how tidal marshes, and the habitats they provide, will change with increasing sea levels over the coming decades.”

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