

Charles E. Schmidt College of Science  
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## *Whole river solutions to climate and land-use problems*

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U.S. Geological Survey  
Lafayette, Louisiana

FAU Faculty Staff Club, Engineering East, Boca Raton Campus  
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**Dr. Middleton** is a renowned research ecologist with the Wetland and Aquatic Research Center, U.S. Geological Survey in Lafayette, Louisiana. Her influential work on how climate change may alter wetlands across large geographical areas has contributed significantly to our understanding of world wetland restoration, and global climate change. Her book "Wetland restoration, flood pulsing and disturbance dynamics" received the Merit Award of the Society of Wetland Scientists. She has worked with managers around the world to determine large scale causes of environmental problems, and potential solutions (i.e., Whole River Approaches).

Whole river approaches are often the way to solve environmental problems on floodplains, but the application of these solutions can be greatly complicated by land-use and climate change. This presentation will explore research that considers whole-river or large-landscape solutions using macroecology approaches. Much more landscape level information is needed for managers to develop triage strategies for management to resist, accommodate, or direct vegetation in predicted climates. Looming changes in the Earth's environment threaten the biodiversity and conservation of world wetlands. An essential fix is the fostering of a strong land-people connection.