

# UF representatives attend Wetlands Symposium in Botswana: Summary

UF PhD students and faculty affiliated with the National Science Foundation's Integrated Graduate Research, Education and Training Program in Water, Wetlands and Watersheds (AMw3-IGERT) presented their research at the international symposium "Wetlands in a Flood Pulsing Environment: Effects and Responses in Biodiversity, Ecosystem Functioning and Human Society" in Maun, Botswana, the gateway to Southern Africa's storied Okavango Delta.

Hosted by the Henry Oppenheimer Okavango Research Center at the University of Botswana, the week long symposium was attended by leading researchers representing some of the world's most significant wetland environments, including the Okavango, the Pantanal and Amazon flooded forests of Brazil, Florida's Everglades and the Mississippi River Delta, the Tonle Sap Great Lake wetlands of Cambodia, and the famed marshes of the Tigris & Euphrates River Valley of Southern Iraq – among many others.

The common biophysical feature of all these systems is the significance of seasonal or episodic flooding to their functioning. A second commonality that characterizes these systems is the influence of humans, either directly through land use practices and water use development proposals or indirectly through the pervasive effects of climate change. Understanding and managing these anthropogenic impacts demand the interdisciplinary approach championed by the NSF AMw3-IGERT Program.

Presentations by the UF's IGERT students who have focused their research in the Okavango Delta reflected the interdisciplinary nature of the UF Program. Deb Wojcik (PhD candidate, School of Forest Resources and Conservation) presented the initial stages of her work employing methods of social network analysis to examine community perceptions of water and wildlife in the Okavango Delta. Anna Cathey (PhD candidate, Agricultural and Biological Engineering) presented her research that utilizes uncertainty analysis to explore the sensitivity of hydrologic modeling of the Okavango Basin. Narcisa Pricope (PhD candidate, Geography) presented her work using hydrologic data and remote sensing analysis to explore hydrologic and vegetation change in the Chobe Basin of Botswana.

Mark Brown - the AM:W3 IGERT Principal Investigator and Director of UF's Center for Wetlands - gave a plenary presentation entitled "Florida's Everglades: Pulsing on the Edge of Chaos." Brown also led a special session titled "Protecting High Flows through Minimum Flows and Levels: Science and Policy". He and Richard Hamann from the UF College of Law's Center for Governmental Responsibility discussed Florida's approach to protecting environmental flows using "minimum flows and levels."

Assistant Professor, Matt Cohen (UF School of Forest Resources and Conservation) presented his research on the “pattern landscapes” of the Florida Everglades, shaped by the pulse of water over the landscape, something that may also be reflected in the patterns of land and water in the Okavango Basin.

UF Law Conservation Clinic Director Tom Ankersen drew analogies from his Clinic’s research into the adaptive response of law and policy to sea level rise to suggest approaches to the management of human development in flood pulsing environments. Human encroachment in the Okavangosin’s floodplains led to human fatalities and property damage during the unusually high 2009 flood pulse.

The Harry Oppenheimer Okavango Research Center has a long and continuing tradition of collaboration with the University of Florida. Three members of the HOORC faculty are UF PhDs and Botswana nationals; Wellington Masamba from the Department of Chemistry, Lin Cassidy from the School of Natural Resources and Environment and Tropical Conservation and Development Program and Michael Murray-Hudson, a recent graduate of the Department of Environmental Engineering Sciences, who studied under Brown. In addition, OT Thakadu from HOORC is currently completing his PhD in Agricultural Communication and Education. Between 2005-2008 three cohorts of NSF IGERT students traveled to the Okavango Delta with Brown and Hamann to begin their interdisciplinary exploration into water, wetlands and watersheds.

UF faculty, students & friends demonstrate the gator chomp at the conference closing festivities, a traditional Tswana dinner at the HOORC tented camp. Pictured from left to right are Michael Murray-Hudson (UF-HOORC), Mark Brown (UF), Wellington Masamba (UF-HOORC), Eric Kiviat (Hudsonia, inc. & Gator Wannabe) , Francis Murray Hudson (HOORC), Anna Cathey (UF), Narcisa Pricope (UF), Tom Ankersen (UF), Lin Cassidy (UF-HOORC), Deb Wojcik (UF), Richard Hamann (UF) and Matt Cohen (UF).

The UF collaboration with HOORC will continue into the foreseeable future. In 2009, both HOORC and the University of Florida were awarded grants from the MacArthur Foundation to join a global network of universities establishing a new Master’s Degree in Sustainable Development Practice, designed to promote the development of a new generation of development assistance practitioners. This UF Program is jointly administered by the UF Centers for African and Latin American Studies, signaling a new inter-unit collaboration at UF. The new program receives its first cohort of admitted students in the Fall of 2010. The Program is administered by Professors Grenville Barnes (SFRC) and Brian Child (CAS/Geography), both from Southern Africa. In addition, Professor Jane Southworth and her colleagues in the Department of Geography have a 3-year NASA grant to explore the inter-relationships between climate change, land use and institutions in the Okavango and other southern African basins - a project that will involve HOORC.