

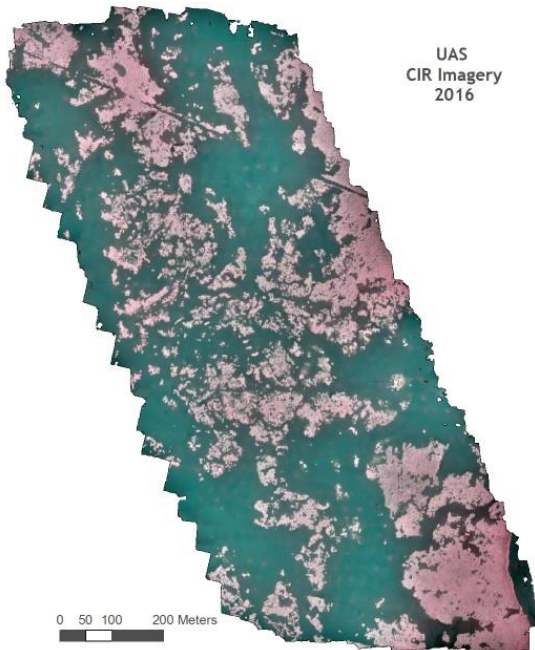
Thursday,  
October 12th



presents a  
Lunch & Learn

# Using Object-Based Image Analysis to classify wetland vegetation cover from hyperspatial, multispectral UAS imagery

**Speaker:** Whitney Broussard, PhD, GISP  
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## Abstract:

Dr. Broussard will present a case study operating an Unmanned Aircraft System (UAS) over a Coastwide Reference Monitoring System (CRMS) site in Terrebonne Parish. He will present the results of an Object-Based Image Analysis (OBIA) with some logistical constraints and lessons learned from operating in the coastal environment.

The purpose of the study was to demonstrate the ability of UAS technology to collect hyperspatial, multispectral aerial images and to produce 2-D orthomosaics and 2.5-D digital surface models in a *Spartina patens* dominated intermediate coastal marsh. OBIA techniques were then used to classify species composition and to quantify average plant height, land-water interface, and Normalized Difference Vegetation Index (NDVI) by object. Model results were validated with on-the-ground vegetation surveys collected as part of the CRMS program.

These methods could be readily applied in multiple coastal settings, and could support other project operations and monitoring needs. Such a method would be an important step towards a comprehensive monitoring program of coastal restoration and would provide a useful tool to study how coastal wetland ecosystems respond and adapt to human interventions.

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(Thanks for registering and paying in advance. This gives us a head count and guarantees you a lunch!)

**Time:** 11:30am - 1pm

**Where:** EBRPL - Bluebonnet Regional Branch Library  
9200 Bluebonnet Blvd, Baton Rouge, LA 70810

**Cost:** LA URISA Members – \$15  
Non-LAURISA Members – \$20  
Or Become a Member for \$50 (\$20 for students)

Let us know if you require special menu considerations by emailing [LouisianaChapterURISA@gmail.com](mailto:LouisianaChapterURISA@gmail.com)