

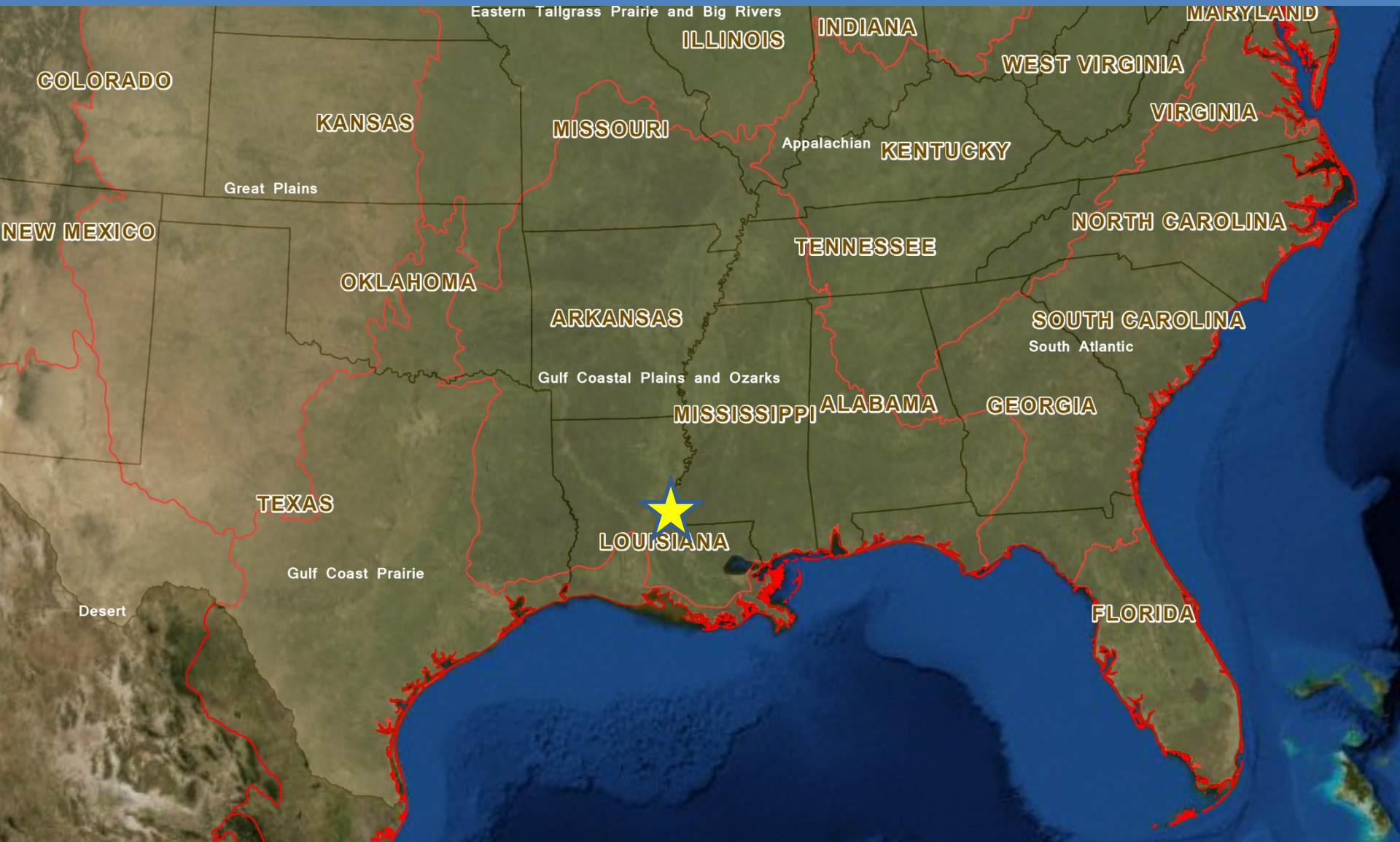


Alligator Gar Habitat Suitability Index



Baton Rouge Fish and Wildlife Conservation Office
Private John Allen National Fish Hatchery
St. Catherine's Creek National Wildlife Refuge
Gulf Coastal Plains / Ozarks LCC
NWR Inventory and Monitoring Initiative
Southeastern Aquatic Resource Partnership

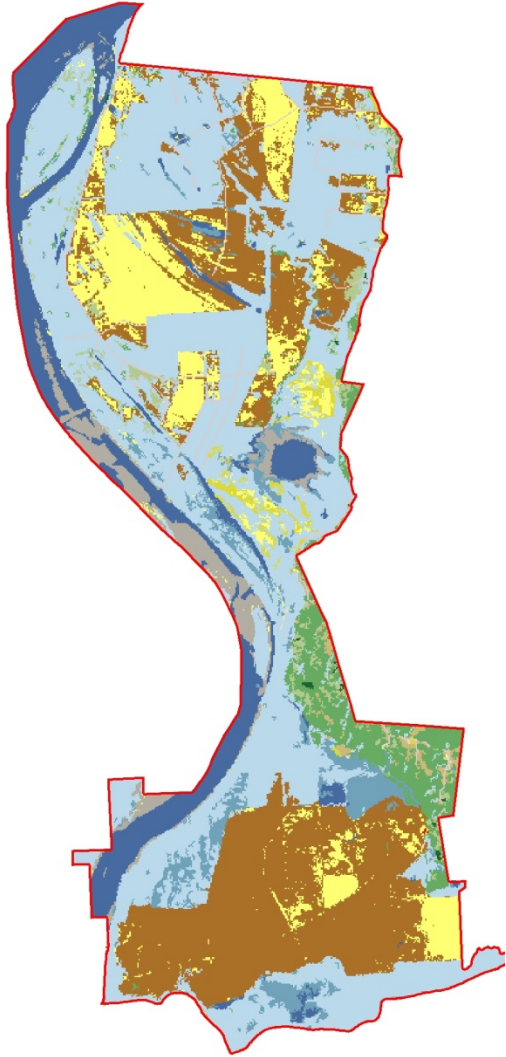
St Catherine Creek National Wildlife Refuge



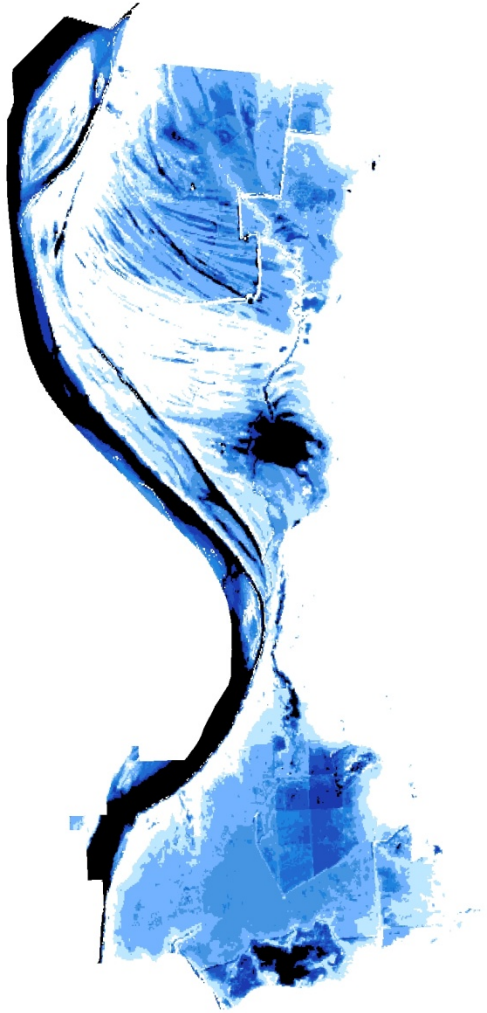
Towards an Empirical Model

	Staging	Spawning	Summer	Winter
Water presence	X	X	X	X
Water class	Lake = optimal River = suitable	Temporarily flooded area	Any open water	River = optimal Lake = suitable
Flood frequency	Permanent	Annual = optimal 1 / 7 years = minimum	Permanent	Permanent
Water depth	4' - 16'	1' - 4'	N/A	> 10'
Water temperature	> 50°F	65 - 72°F	N/A	N/A
Vegetation type	N/A	Herb. wetlands, ag, and moist-soil = optimal shrub-scrub = suitable	N/A	N/A
Connectivity	X	X	N/A	N/A
Flood duration	N/A	60 days = optimal 10 days = minimal	N/A	N/A

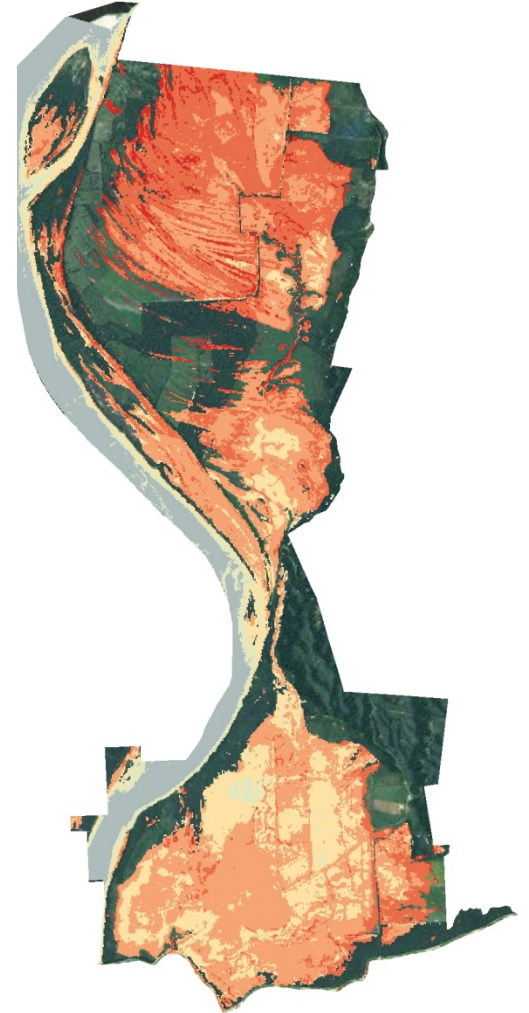
Combining Data – Habitat Suitability Index



Vegetation



Inundation








Temperature

Alligator Gar Spawning HSI - St. Catherine Creek NWR



HSI clipped

Value

	Out
	Inundation Good, Habitat Good, Temperature Good
	Inundation Good, Habitat Good, Temperature Acceptable
	Inundation Good, Habitat Good, Temperature Poor
	Inundation Good, Habitat Poor, Temperature Good
	Inundation Good, Habitat Poor, Temperature Acceptable
	Inundation Good, Habitat Poor, Temperature Poor
	Inundation Too Dry, Habitat Good, Temperature Unknown
	Inundation Too Dry, Habitat Poor, Temperature Unknown
	Inundation Too Wet, Habitat Good, Temperature Good
	Inundation Too Wet, Habitat Good, Temperature Acceptable
	Inundation Too Wet, Habitat Good, Temperature Poor
	Inundation Too Wet, Habitat Poor, Temperature Good
	Inundation Too Wet, Habitat Poor, Temperature Acceptable
	Inundation Too Wet, Habitat Poor, Temperature Poor
	Mainstem Mississippi River

Locating Potential Areas to Sample or Deliver Conservation

