

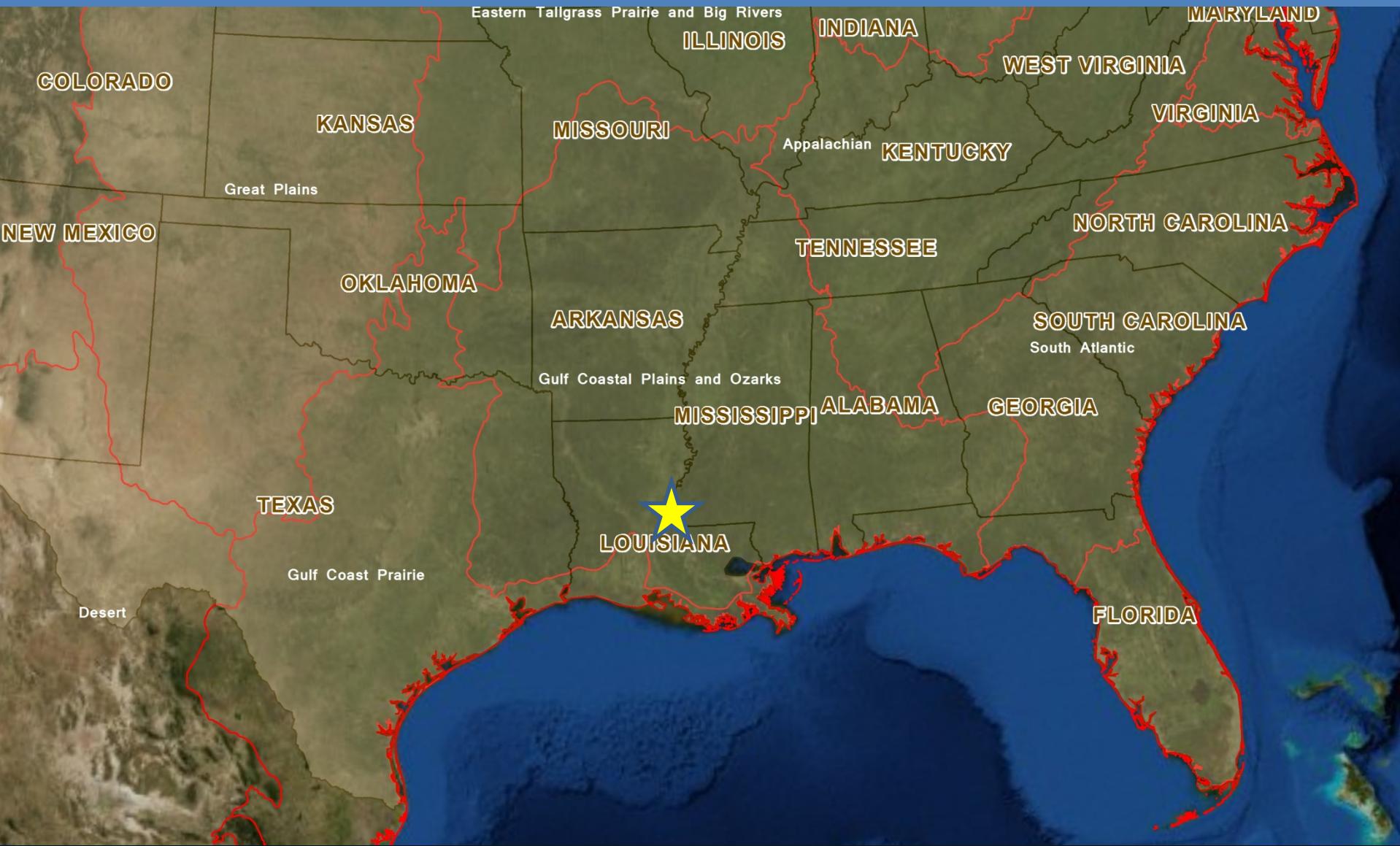


# Alligator Gar Habitat Suitability Index



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

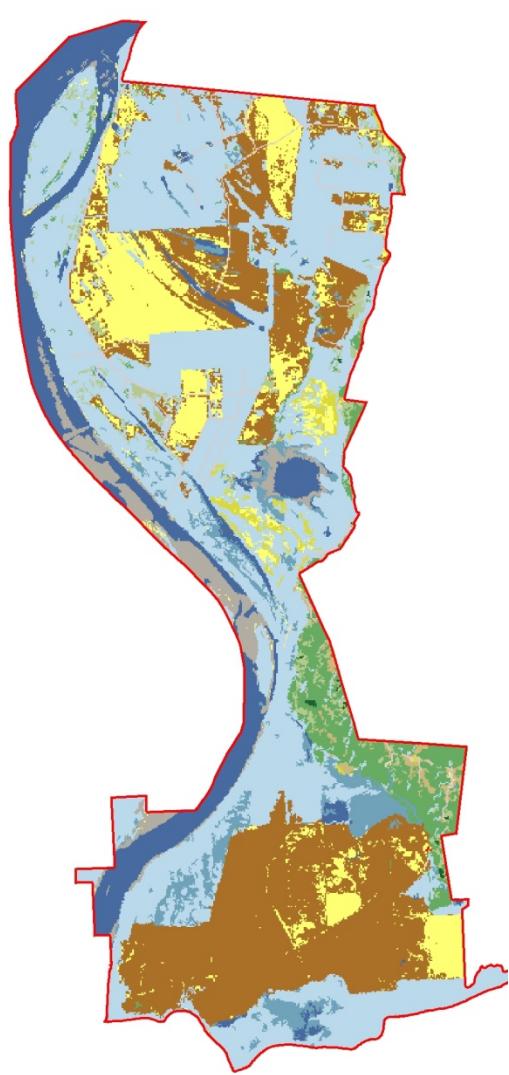
# *St Catherine Creek National Wildlife Refuge*



# Towards an Empirical Model

	<b>Staging</b>	<b>Spawning</b>	<b>Summer</b>	<b>Winter</b>
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

HSI clipped

Value

