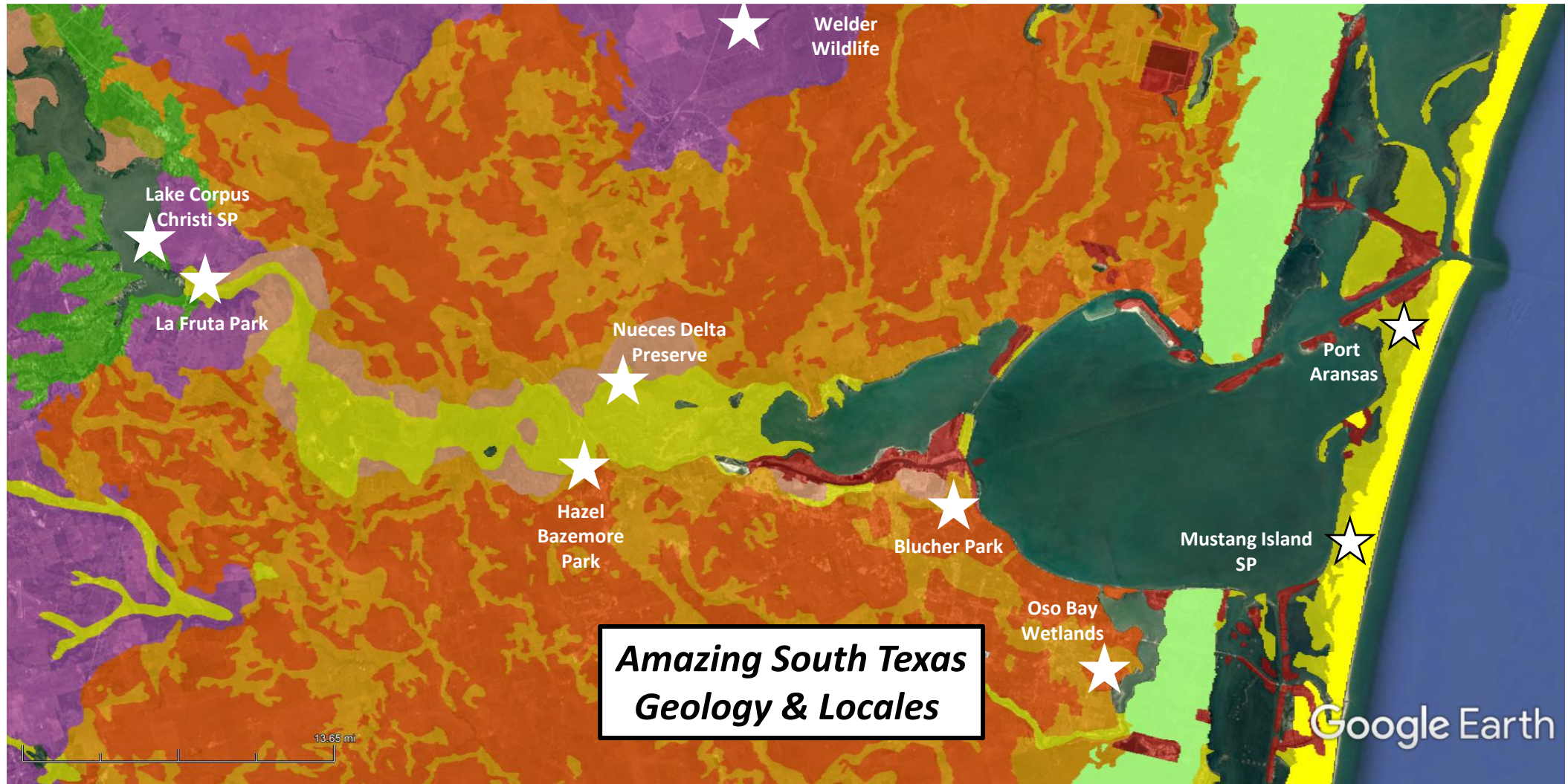
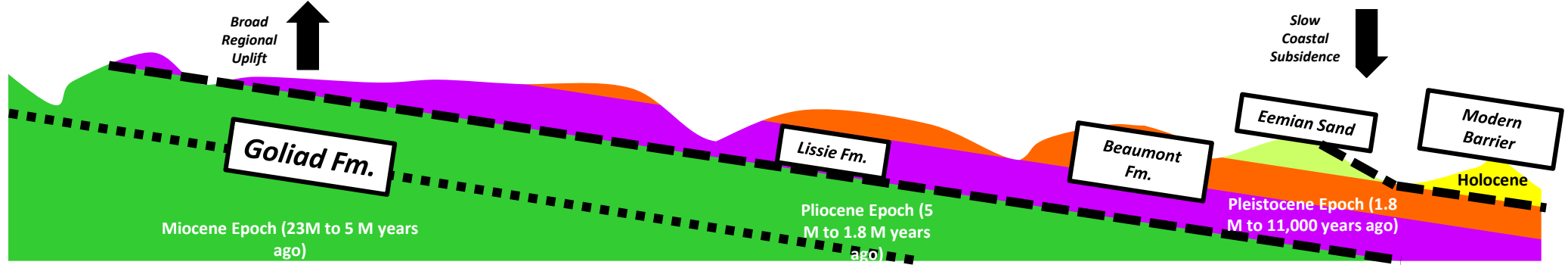


# Geology and Landscape of Lake Corpus Christi State Park

September 2022



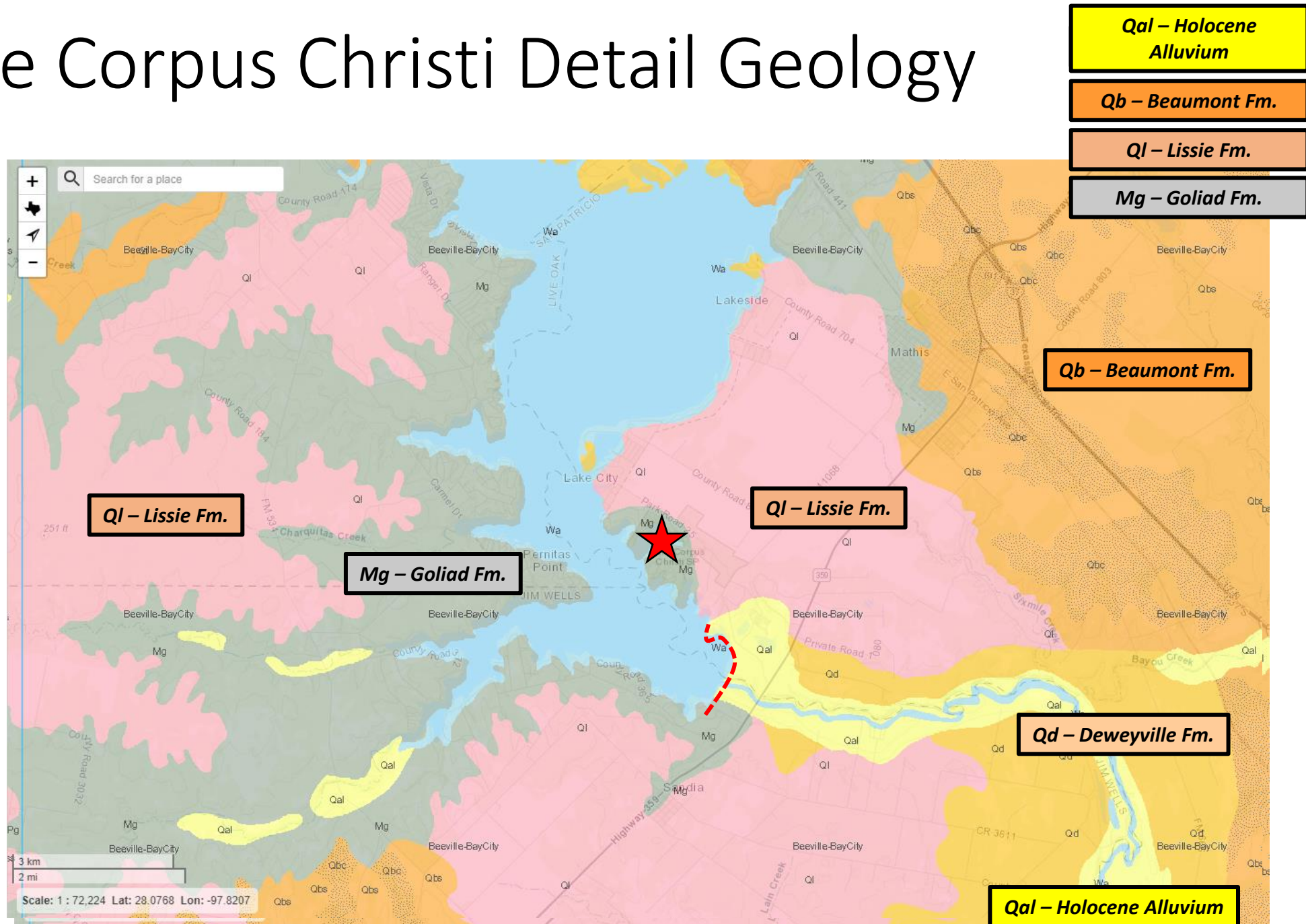
[www.txmn.org/st](http://www.txmn.org/st)



November 2011



# Lake Corpus Christi Detail Geology



# Senegal River – Analog for the Miocene Goliad Formation

Mauritania

Senegal

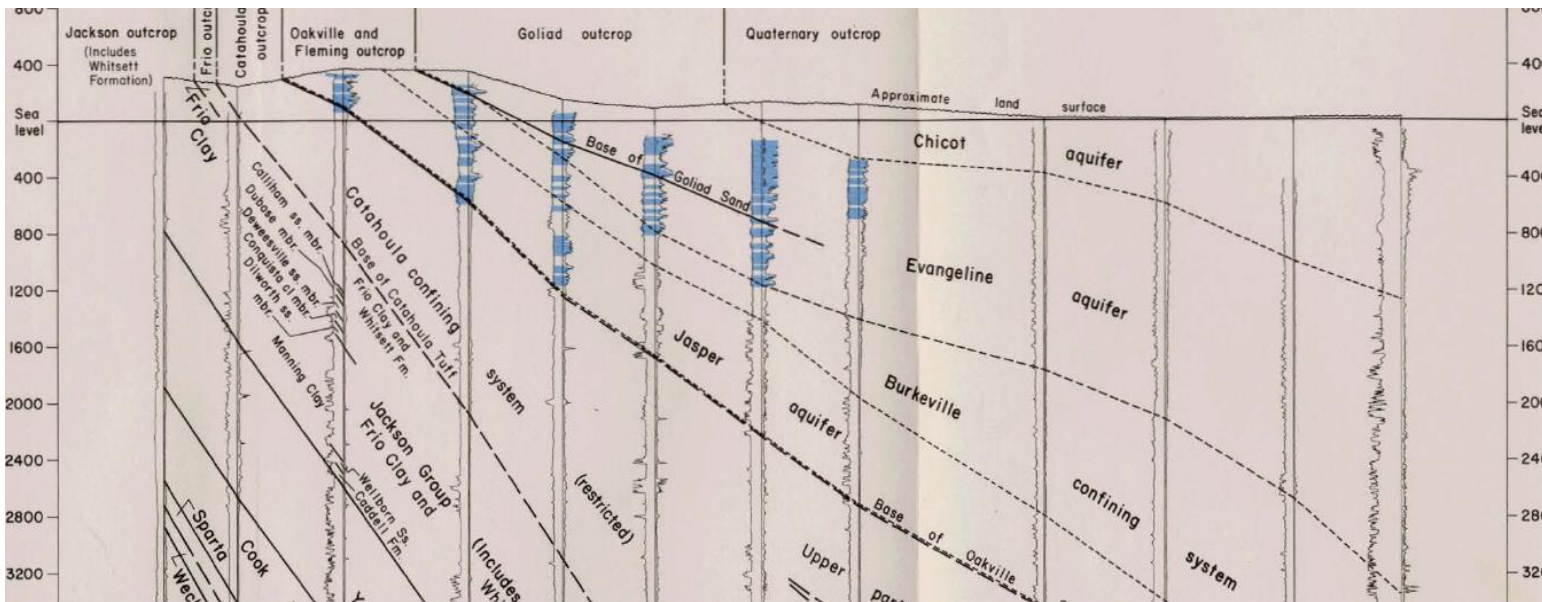
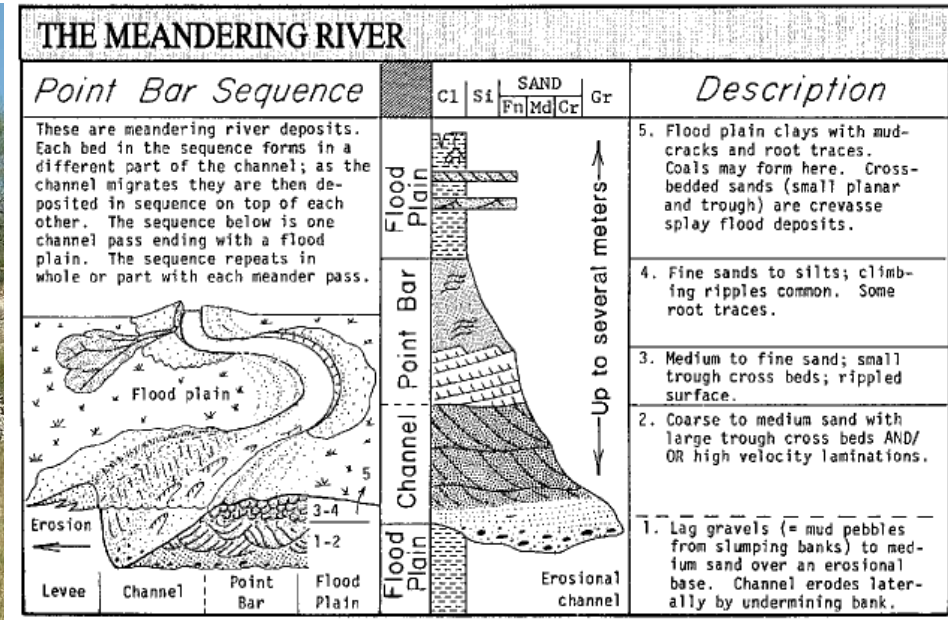


## Senegal River Valley

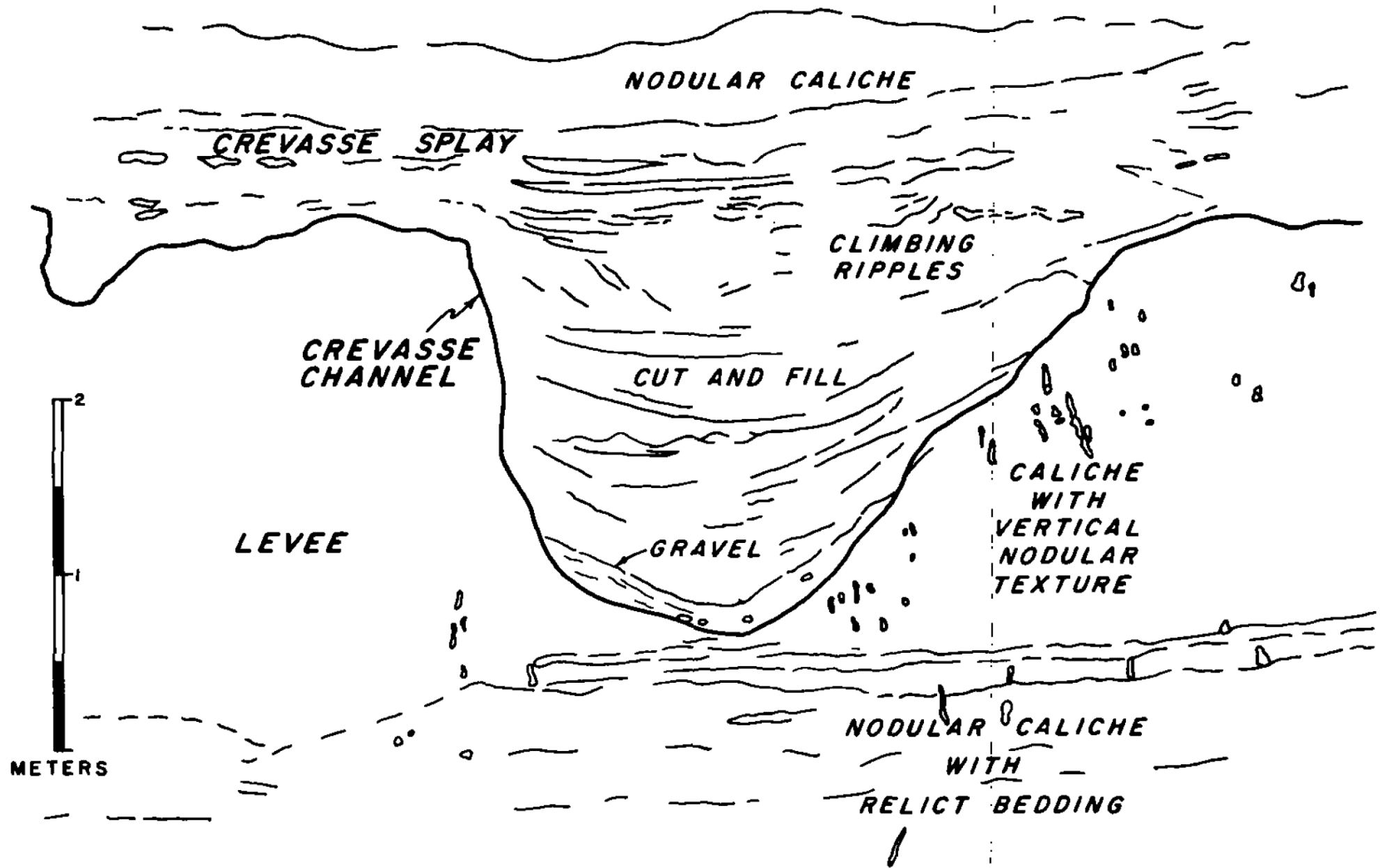
- Atlantic coast of Africa.
- Passive continental margin.
- Arid environment.
- Braided river system.
- High sedimentation rates.
- Variable river flow.
- Large mammals in valley.



# Goliad Formation

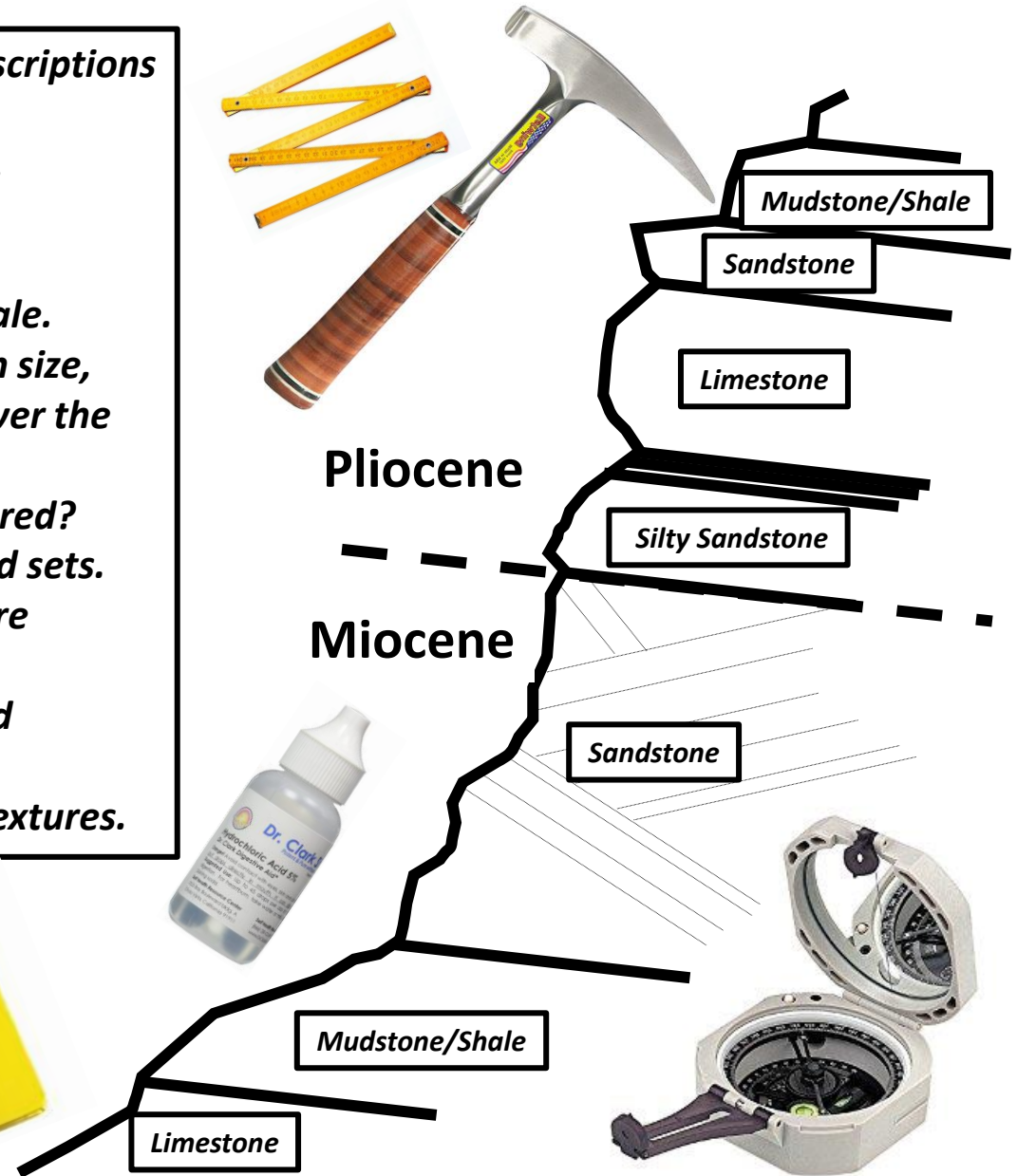


Geologic Units			Hydrogeologic Units
System	Series	Stratigraphic Unit	Aquifer and Confining Units
Quaternary	Holocene	Alluvium	Chicot Aquifer Base ~600 ft
		Deweyville Formation	
	Pleistocene	Fluvial Deposits	
		Beaumont Clay	
Tertiary	Pliocene	Willis Sand	Evangeline Aquifer Base ~2000 ft
		Goliad Sand	
	Miocene	Fleming	Burkeville Confining Unit Base ~2400 ft
		Jasper	Jasper Aquifer Base ~3200 ft
		Chicot	
	Oligocene	Frio	
		Vicksburg	
		Jackson	
Eocene	Yegua		



# How to Describe Rocks in the Field

1. Do your homework, know the ages and general descriptions of the rocks you expect to encounter.
2. Be prepared: bring a rock hammer, grain size chart, hydrochloric acid, scratch plates.
3. Locate yourself on a map, a geologic map is best.
4. Use your field book to sketch the outcropping to scale.
5. Make note of distinctive changes in rock type, grain size, color or composition. What types of vegetation cover the outcrops?
6. Are the rocks tilted, folded, or overturned? Weathered?
7. Identify groupings of similar beds, textures, and bed sets.
8. Use a tape or other field measure to determine more precise thicknesses of strata.
9. Record all observations in notes for comparison and interpretations with research.
10. Use photography to document key features and textures.



GRAVEL	COBBLES	PEBBLES	GRAVEL
2 mm - 4 mm	4 - 64 mm	64 - 256 mm	> 256 mm
Angular	Subangular	Subrounded	Rounded
Well Rounded			
Very Coarse (Upper) = 1.410 - 2.000mm			
Very Coarse (Lower) = 1.000 - 1.410mm			
Coarse (Upper) = 0.710 - 1.000mm			
Coarse (Lower) = 0.500 - 0.710mm			
Medium (Upper) = 0.350 - 0.500mm			
Medium (Lower) = 0.250 - 0.350mm			
Fine (Upper) = 0.177 - 0.250mm			
Fine (Lower) = 0.125 - 0.177mm			
Very Fine (Upper) = 0.088 - 0.125mm			
Very Fine (Lower) = 0.062 - 0.088mm			
very poorly sorted	poorly sorted	moderately sorted	well sorted
		well sorted	very well sorted

