



BIOLOGICAL METRICS FOR DEVELOPMENT OF MINIMUM FLOWS AND LEVELS IN THE SUWANNEE RIVER BASIN

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Suwannee River Water Management District, Live Oak, FL, USA



Water Resource Values (WRVs)



- Recreation in and on the water;
- Fish and wildlife habitats and the passage of fish;
- Estuarine resources;
- Transfer of detrital material;
- Maintenance of freshwater storage and supply;
- Aesthetic and scenic attributes;
- Filtration and absorption of nutrients and other pollutants;
- Sediment loads;
- Water quality
- Navigation

State Water Policy (Rule 62-40.473, F.A.C.)

Passage of fish



**Powerplant
Shoal**

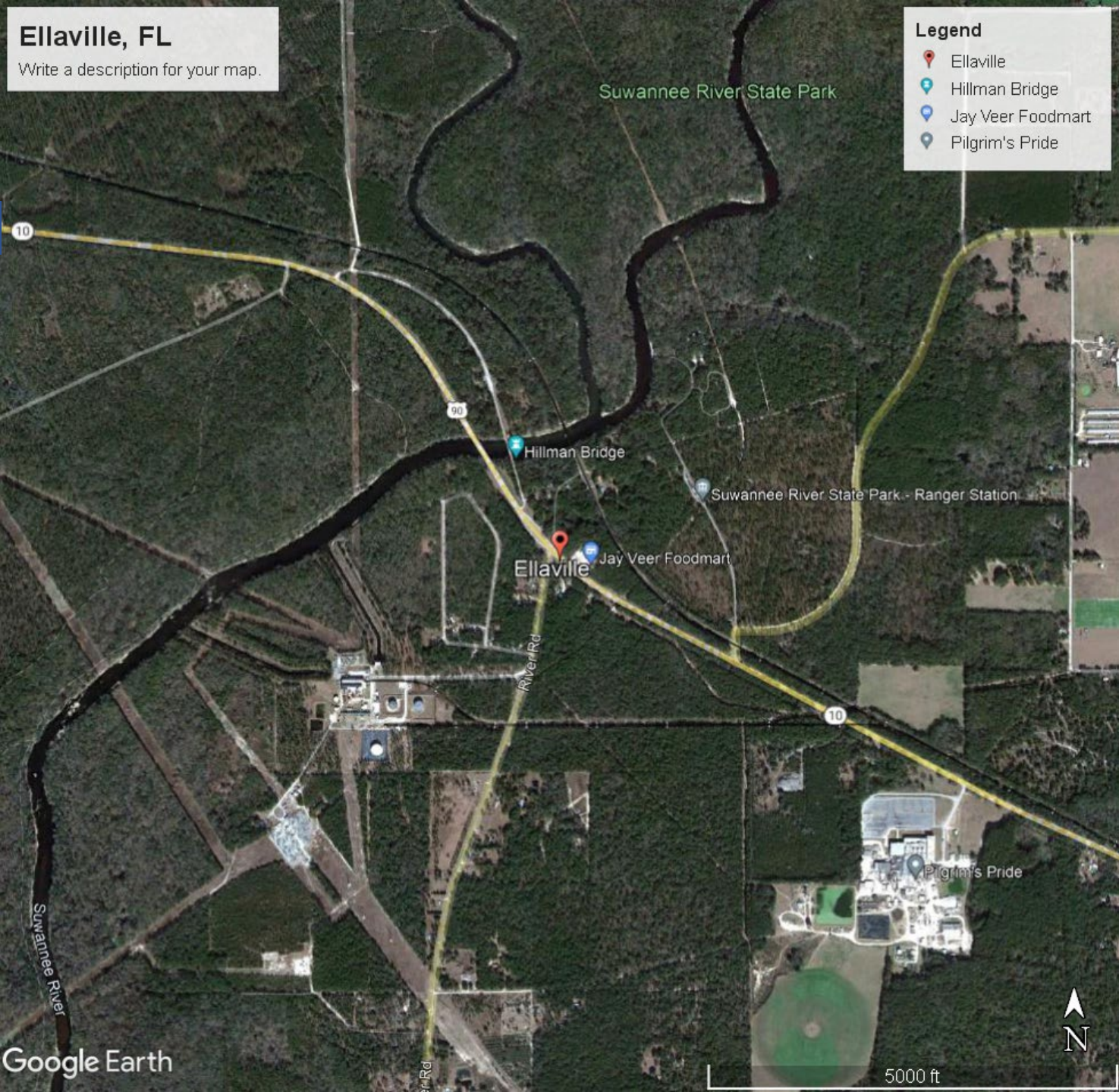
Ellaville, FL

Write a description for your map.

Legend

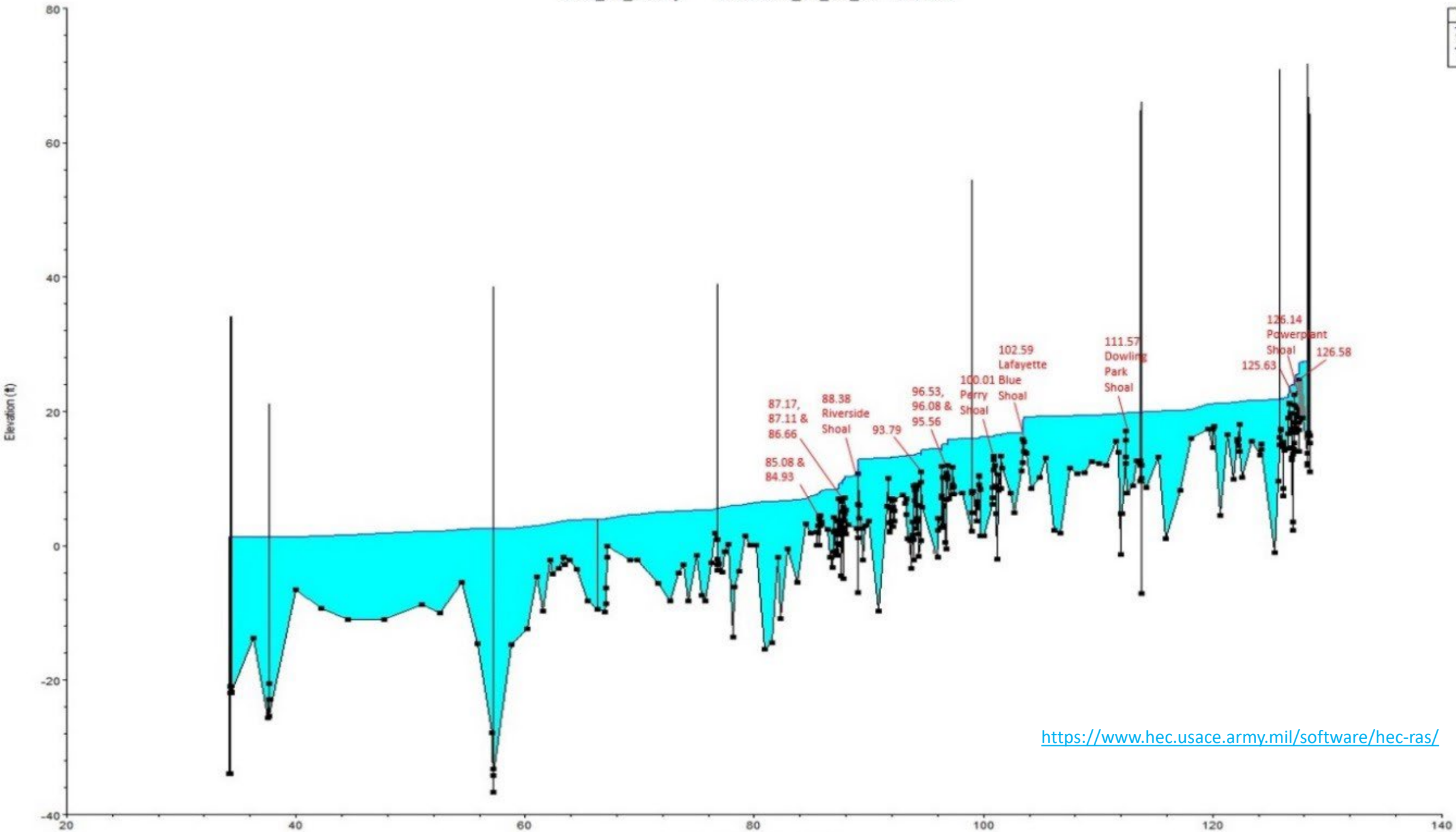
- 📍 Ellaville
- 📍 Hillman Bridge
- 📍 Jay Veer Foodmart
- 📍 Pilgrim's Pride

← Madison, FL

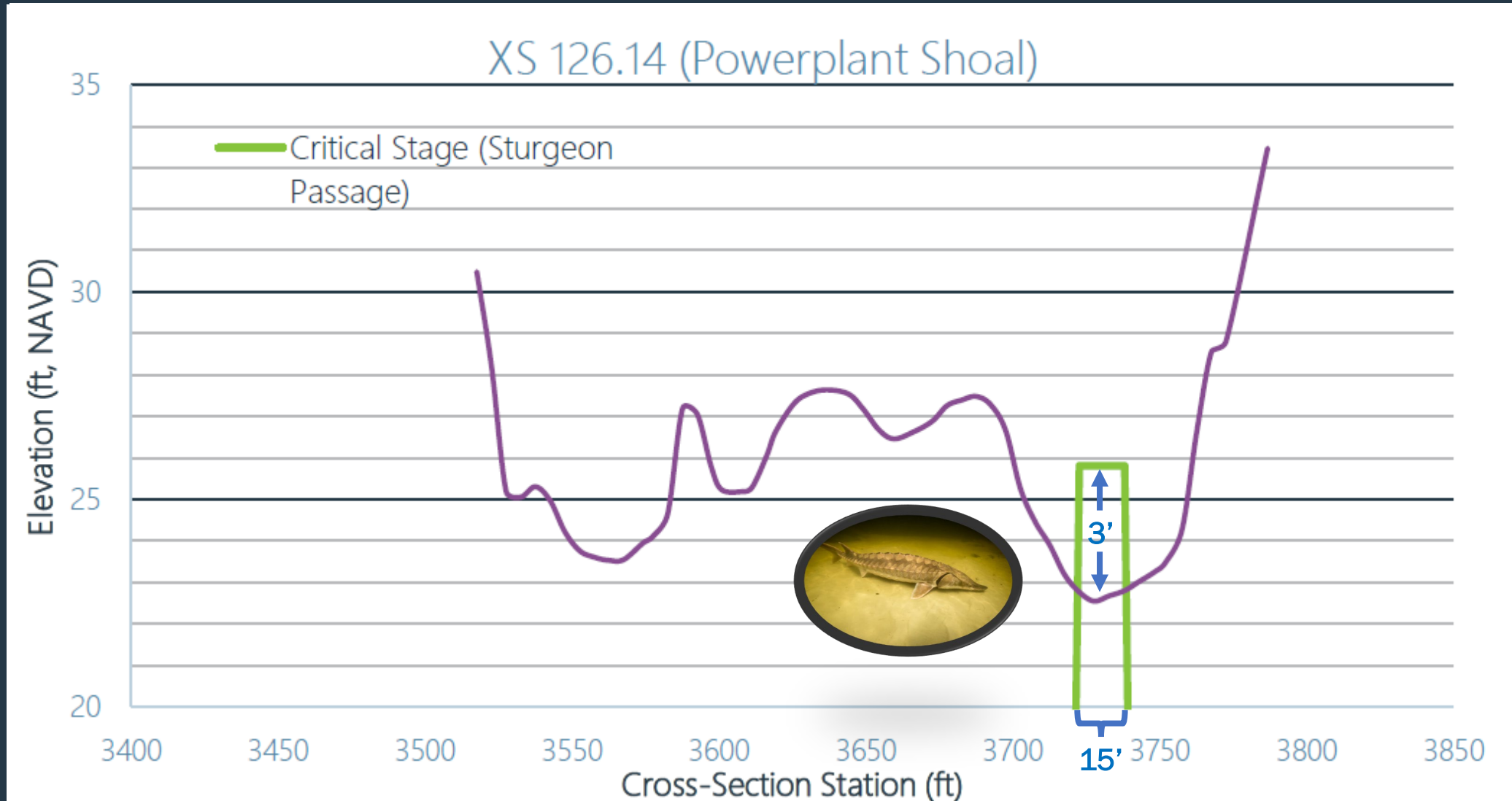


→ Live Oak, FL

Legend
WS PF 1
Ground



Gulf Sturgeon Passage

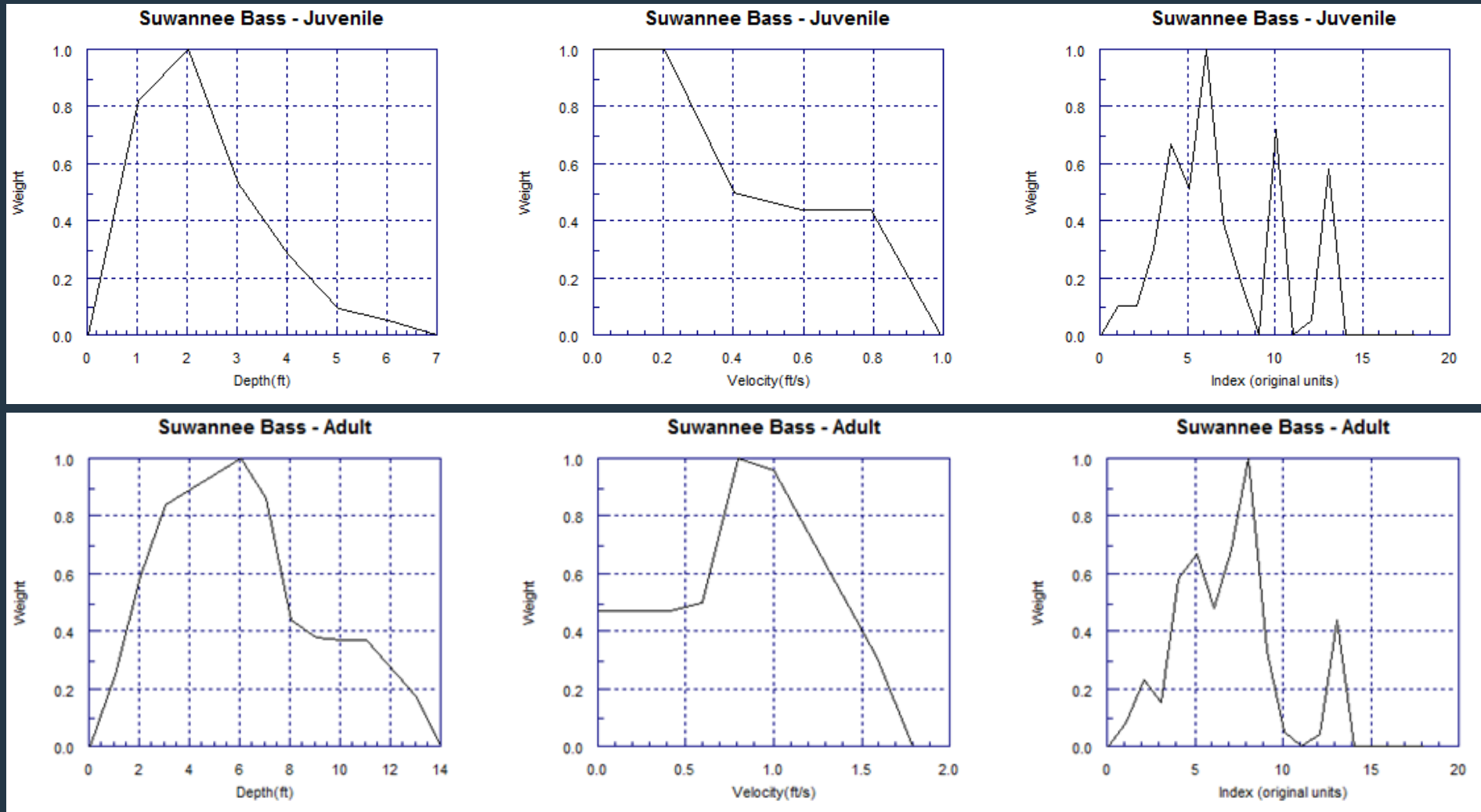


Powerplant Shoal Artifacts

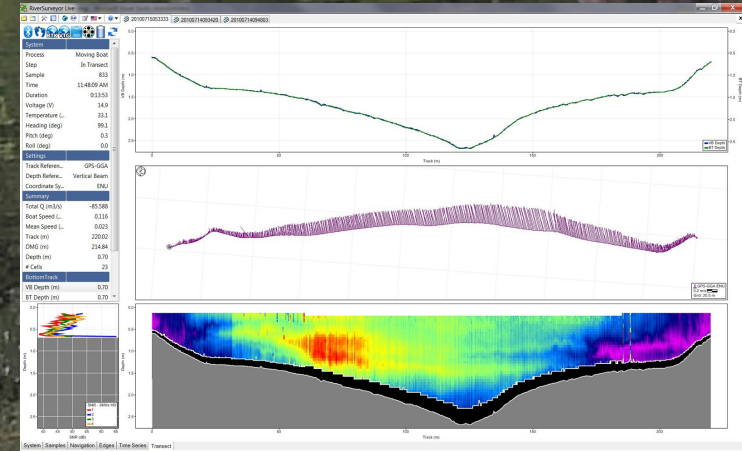
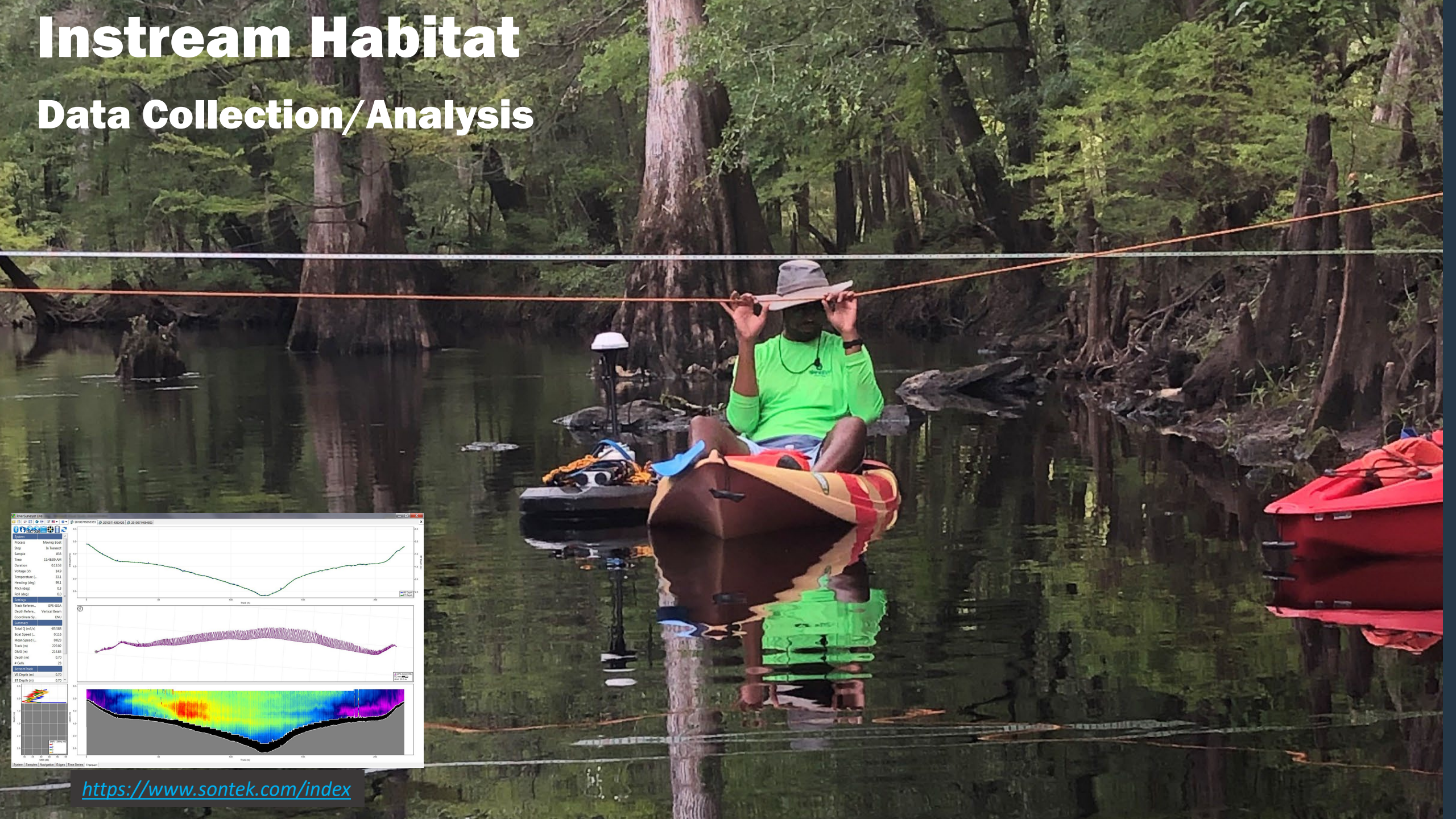




Fish and Wildlife Habitat Habitat Suitability Curves

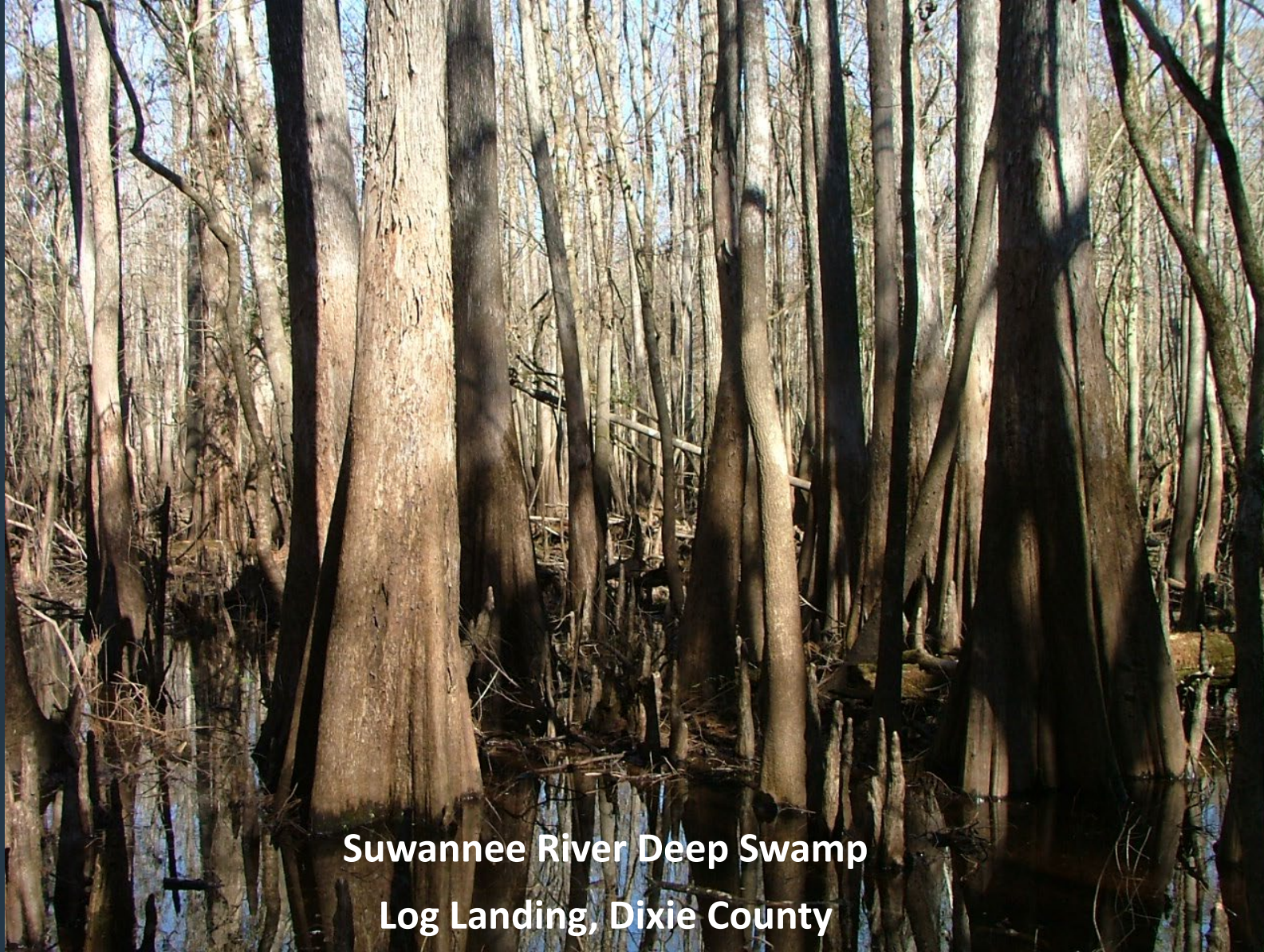


Instream Habitat Data Collection/Analysis

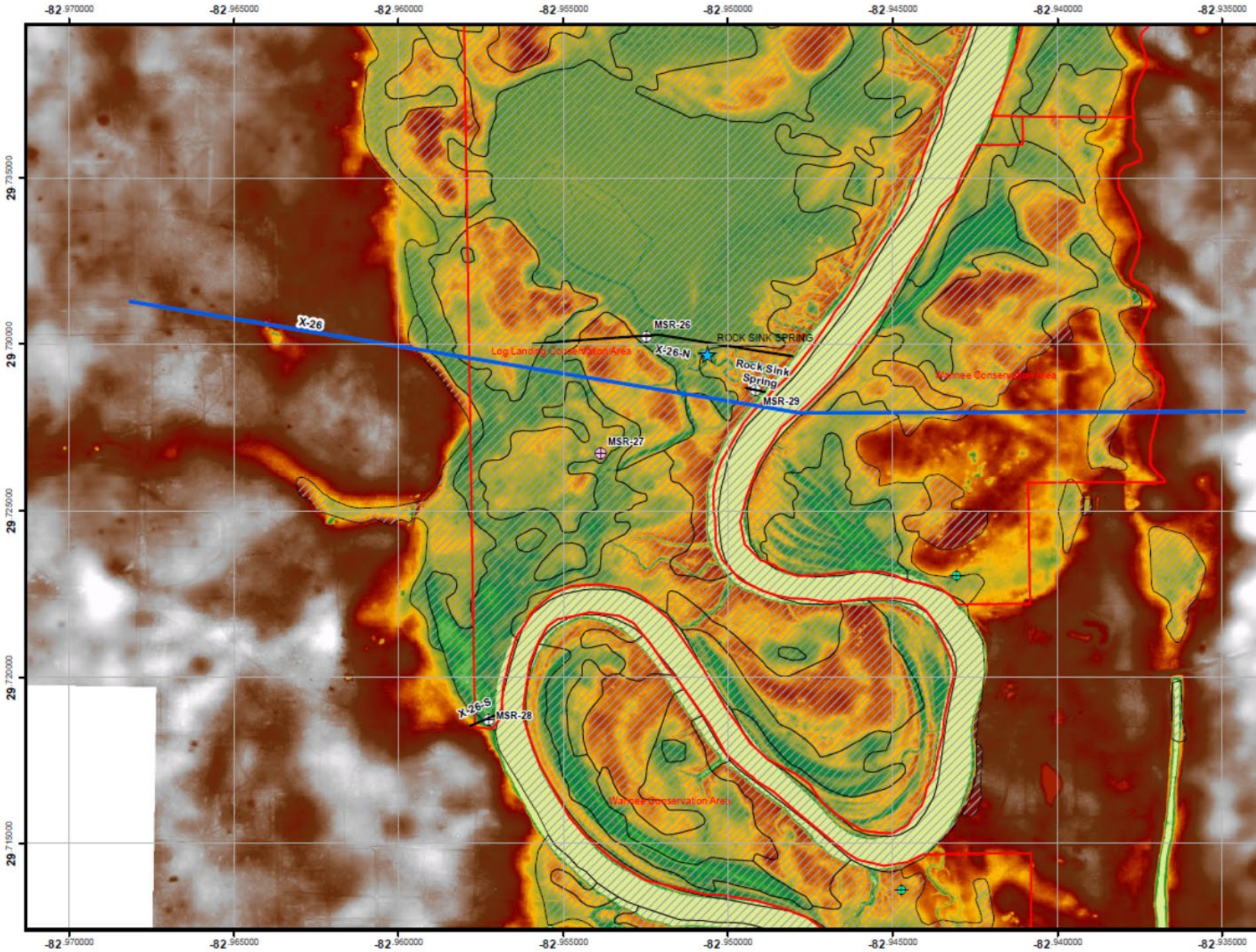


Fish and Wildlife Habitat

Floodplains



Suwannee River Deep Swamp
Log Landing, Dixie County



Notes:

1. Project No. - 600245
2. Data Sources - SRWMD
3. This map is intended to be used for planning purposes only. It is not a survey.
4. On - WGS 1984 Decimal Degrees



Explanation of Features

- Monitoring Transects
- Monitoring Station

 - ⊕ District Station
 - ⊕ Gage
 - ⊕ Well
 - ⊕ Well + Gage
 - ⊕ Barallogger
 - ⊕ SRWMD Gage
 - ⊕ USGS Gage
 - HEC-RAS XS
 - ★ Other Spring
 - ★ Priority Spring
 - ⊕ MWI (10-yr FP District Land)
 - ☐ Public Ownership (10-yr FP)
 - ▨ NWI (10-year FP)
 - DEM (feet)

 - High : 67.1149
 - Low : -16.5582

Scale: 1" = 1000 Feet

North Arrow

Scale: 0, 500, 1,000

1" = 1000 Feet

Rev: 01/13/2015
Revised By:
Drawn By: 888

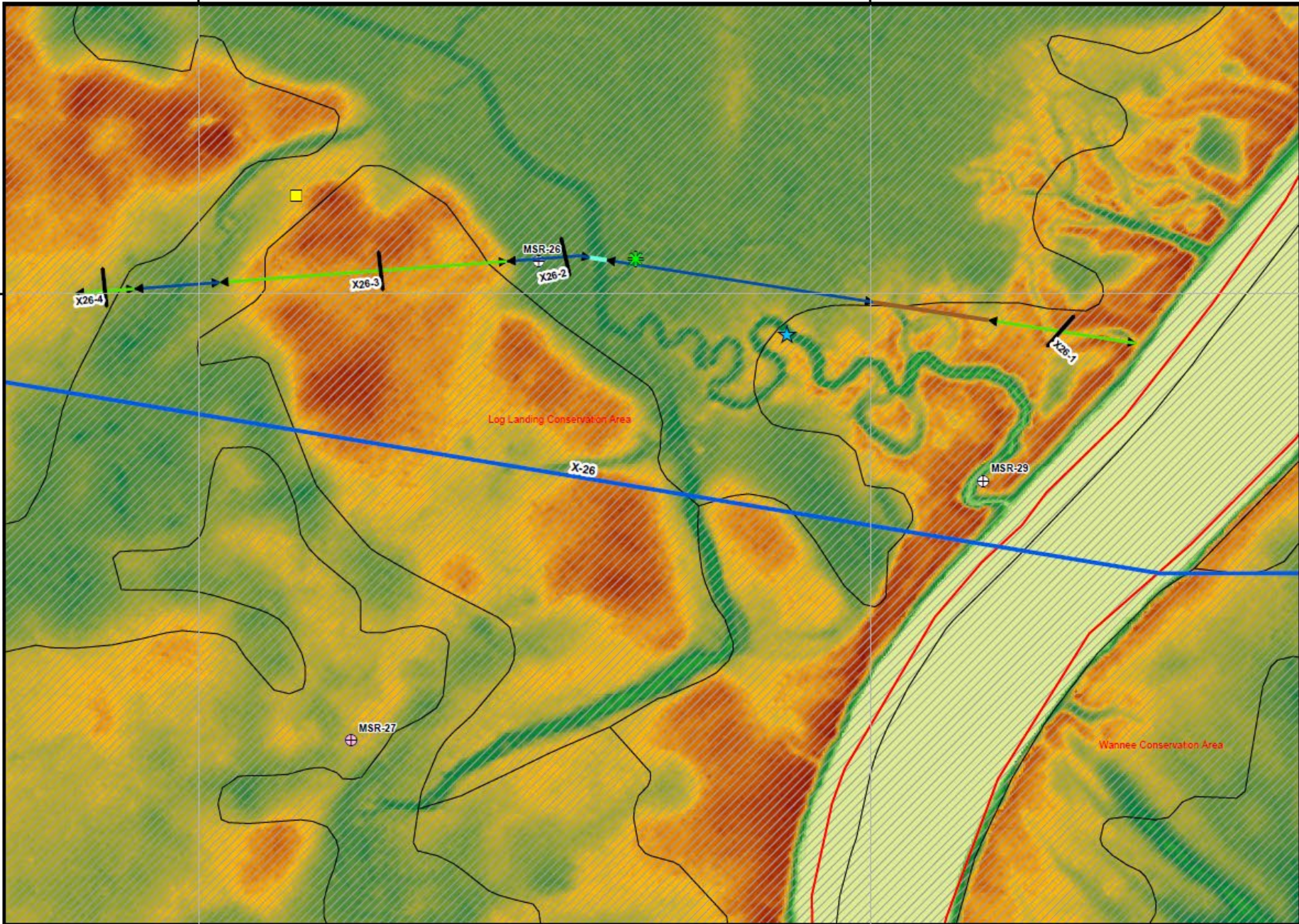
**Middle Suwannee River
MFL Study
Monitoring Locations
X-26 & Rock Sink Spring**

-82.955000

-82.950000

29.730000

29.730000



-82.955000

-82.950000



Notes:

- 1- Project No.: 600345
- 2- Data Sources - SRWMD
- 3- This map is intended to be used for planning purposes only. It is not a survey.
- 4- Grid - WGS 1984 Decimal Degrees



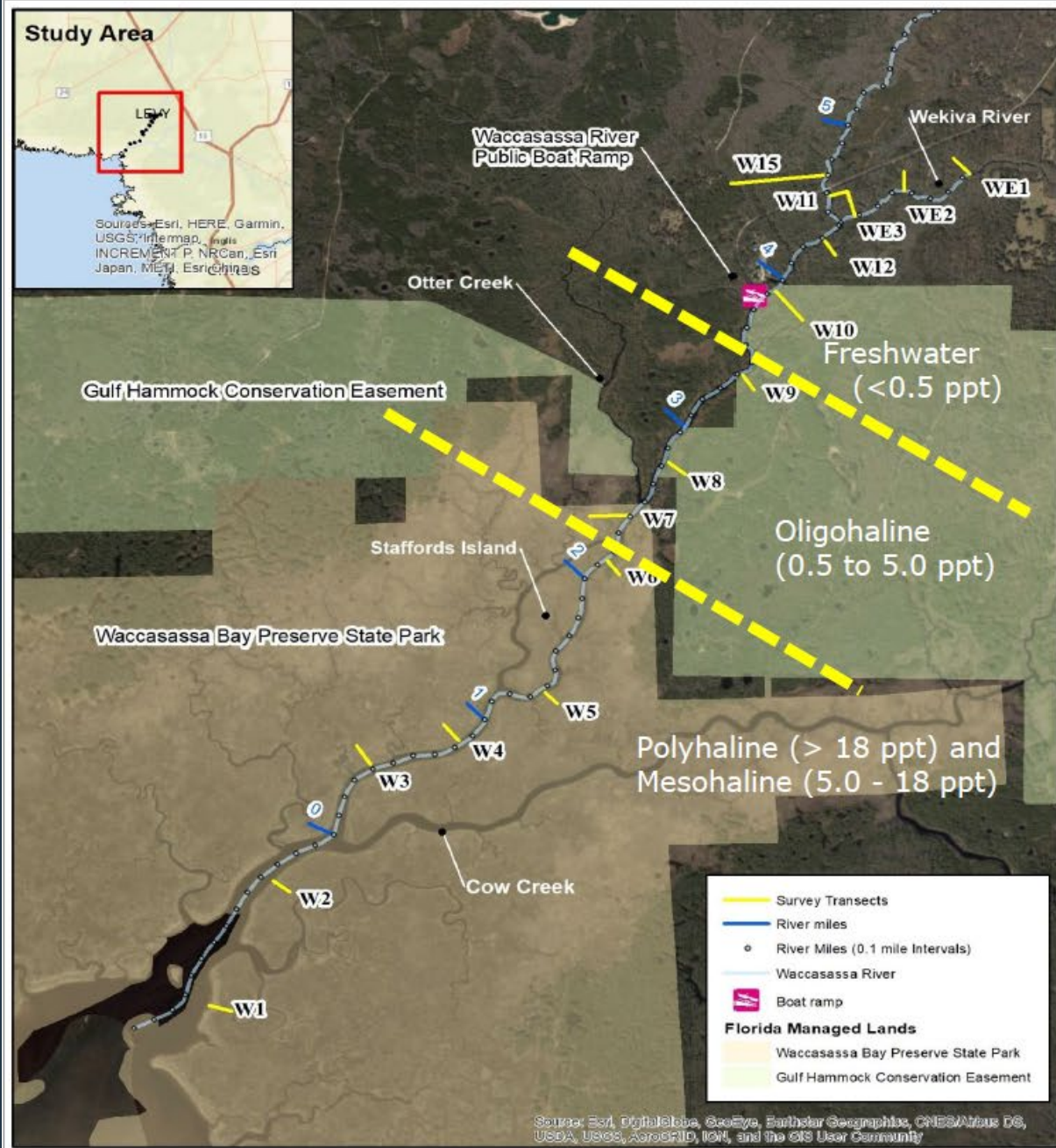
Explanation of Features

- Spring (dot)
 - Highest Point
 - Vegetation_General_Transsects**
 - Community**
 - Active Riparian
 - Riparian Wetland
 - Swamp (SW)
 - Low Bottomland (SB-L)
 - High Bottomland (SB-H)
 - Upland
 - USGS transect endpoints
 - Monitoring Station**
 - District Station
 - Gauge
 - Well
 - Well + Gauge
 - Weir/gage
 - USGS gage
 - USGS gage
 - Selected HEC-RAS XS
 - HEC-RAS XS
 - Other Spring
 - Priority Spring
 - MW (10-yr PP District Land)
 - Public Ownership (10-yr PP)
 - MW (10-yr PP)
 - DEM**
 - High : 67.1149
 - Low : -16.5582
- Scale: 0 125 250
1" = 250 Feet
- DATE: 08/18/2014
REVISION: KID
CHECKED BY: KIN

**Middle Suwannee River
MFL Study
Monitoring Locations
X-26 & Rock Sink Spring**

File Path: \\F:\GIS\GIS_SRWMD_AMEC\Commensal_MFL\20140707_MFL_Monitoring_Station_081714_1114_P10_250_Color.mxd

Estuarine Resources



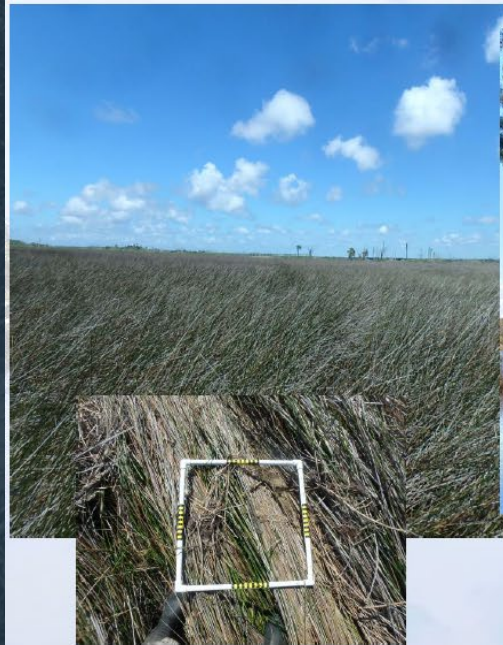
References:
 Transects: RPI, 2019
 FL Managed Lands: FDEP, 2020
 River centerline: NHD, 2018
 River miles: SRWMD, 2018

0 0.5 1 Miles

Fish and Wildlife Habitat/ Estuarine Resources



Methods: Field Sampling Approach



Salt Marsh
(to about rm 1.5,
16 ppt)



Coastal Hydric Hammock
(to about rm 3.5, 9 ppt)



Freshwater Tidal Forest
(0 ppt)

Fish and Wildlife Habitat/ Estuarine Resources



Macroinvertebrates

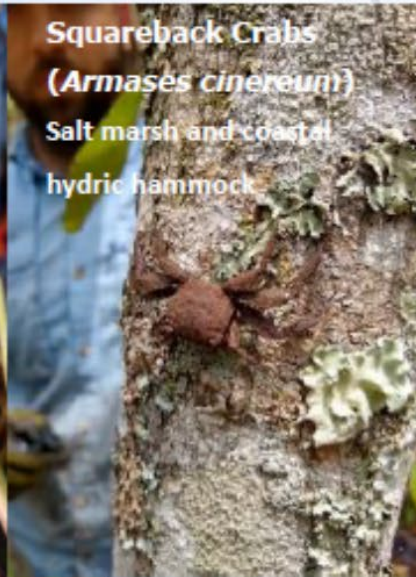


Salt Marsh



Fiddler Crab
(*Minuca longisignalis*)
Coastal hydric
hammock

Coastal Hydric Hammock



Squareback Crabs
(*Armases cinereum*)
Salt marsh and coastal
hydric hammock



Red jointed Fiddler Crab
(*Minuca minax*)
Freshwater Tidal Forest

Freshwater Tidal Forest

Questions?

