

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID: 15479

RQ: 2021-01-25-57

Project: SMP

- Notes: (1) Always wait for meter to stabilize before recording any readings.
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 2/9/21

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro- meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	H Schmuck	3/23/21	0743	21.7	761	8.8	8.7	98.4			(P) F	(L) F
ICV	↓	↓	0743	21.7	761	8.8	8.7	98.4			(P) F	(L) F
CCV	↓	↓	1604	21.1	756	8.8	8.8	99.5			(P) F	(L) F
CCV											P / F	L / F

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	H Schmuck	3/23/21	0745	200124B	8/21	1000	1006	(P) F	(L) F
ICV	↓	↓	0746	201013A	10/21	100	99.1	(P) F	(L) F
CCV	↓	↓	1606	201434	10/21	100	104.1	(P) F	(L) F
CCV								P / F	L / F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	H Schmuck	3/23/21	0747	202114	5/22	7.02	21.3	7.02	-30.7	(P) F	(L) F
Calibr.	↓	↓	0748	203620	6/22	4.00	21.4	4.00	141.1	(P) F	(L) F
Calibr.	↓	↓	0750	201473	5/22	10.05	21.3	10.05	-25.4	(P) F	(L) F
ICV	↓	↓	0751	203620	6/22	4	20.9	3.92	148.0	(P) F	(L) F
CCV	↓	↓	1607	202114	5/22	7	20.8	7.06	-36.8	(P) F	(L) F
CCV										P / F	L / F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ; mV pH 4 Range $+180 \pm 50$; mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 2/9/21

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass/ Fail	Lab/ Field
Pressure mode in air	H Schmuck	3/23/21	0752	0.00	0.00	(P) F	(L) F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS: Bioassessment Jack's Branch 25N0104 33010085

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date: 3/23/2021
Customer: NW-DIST
RQ: RQ-RQ-2021-01-25-57

Collected By: Heather Schmuki, Frank Butera
Sampling Agency: FDEP
Project ID: SMP

PLEASE RETURN THE ORIGINAL OF THIS FORM WITH SAMPLE SUBMITTAL
FORMS AND THE COOLER PACKING WORKSHEET TO THE LAB

Number of Coolers Shipped: 2

FIELD ID (Labels) submitted under this RQ for this collection date.

Site Location	Field ID/WIN ID
Jacks Branch	 G5NW0164

RELINQUISHED BY(SIGNATURE):

Heather Schmuki

DATE/TIME: 3/23/2021; 16:30

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By:

Rec'd/Inspected Date:



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2020

Meter Passed End

of Day CCV

Yes / No

WIN Station Name: Jacks Branch, 50m W of HWY 29, 3 mi N of Cantonment

Date: 3/23/2021

WIN/Field ID: G5NW0164

33010085 FB

WBID: 291

ENR:

Latitude: 30.65539

County: Escambia

Org ID: 21FLPNS

Longitude: -87.3531

Receiving Body of Water: Perdido

RQ- RQ-2021-01-25-57

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Heather Schmuki	x		x		
☒	Frank Butera		x		x	x
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Meter	
Secchi Equipment ID:	
Collection Method	
☒ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☐ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# 154179 (PRODSS)							
Photos: YES		Flow: FLOW		Tide: N/A		Tide Times: High: Low:							
Biological Samples Collected: ☐ None ☒ HA ☒ SCI ☒ RPS ☐ Algae ID ☒ LVS ☐ LVI Other:													
SBIO ID Numbers: SBIO ID 81969. HA 16789 RPS 9683 Macrophyte ID 11780													
Notes: Changed Storet from G5NW0164 to historic 33010085. Low flow, slough like system. Water quality collected at 100 M mark													

Duplicate Sample

Time Zone: CEN	Time:	Field ID: N/A	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone:	Time:	Field ID:	(Blank Type_DDDMMYY)
DI Source:		Location:	
DI Type:		Equipment ID:	
DI Container (Name/ID):		DI Container Type:	

LIMS EVENT ID: 2233513

WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT:

(Initials/Date)

QC Station ID, Field Parameters In LIMS DMT:

(Initials/Date)

Scan/Save Field Sheets FB, 4/05/2021

(Initials/Date)

Migrate Data to WIN:

(Initials/Date)

Verify Data In WIN:

(Initials/Date)



RQ-RQ-2021-01-25-57

Customer: WQAP

Project ID: SMP

Collected By: Heather Schmuki, Frank Butera

Field Report Prepared By: Heather Schmuki

Sampling Agency: FDEP

Place Label Here

WIN ID/Field ID:



-G5NW0464

Location: Jacks Branch, 50 m W of HWY 29, 3 mi N. of Cantoment
33010085

Comments: Microbiology sample(s) submitted to contract laboratory

Win-ID changed to historic station after laboratory submittal. FB

Matrix: Fresh

(Check one)

☒ GRAB☐ COMPOSITE

Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT _h)
3/23/2021	1040 CEN	7.47	77.7	17	4.48	0.1	0.2 ☒ VOB (S)	0.2	49	0.02
							Central Lab please use top row for login purposes			
	CEN									

Parameter Suite	Parameter Methods	Preservation	pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4*	☒ <2	1	A
	Lot # Sa0293040 Exp: 10/19/21				
Metals (P-500ML)	☒ W-ICPMS ☒ W-ICP ☒ W-HARD	☒ Ice ☒ HNO3*	☐ <2	1	A
	Lot # 0344060 Exp: 1/4/22				
Filtered Nutrients (P125ML)	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice		1	A
	Filter Lot # 17097890				
	Syringe Lot # 0079929				
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	A
Physical/Aggregate (Fresh) (P-1L)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice		1	A
Physical/Aggregate (Marine) (P-1L)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates (PJ-2L)	☒ MI-FW-QLDC	☒ Formalin		2	
Periphyton (PT-50ML)	☐ ALGAE-ID	☐ Ice			
Microbiology (Contract Lab Bottle)	☒ E Coli ☐ F Coli ☐ Enterococci ☒ Contract Lab	☒ Ice		1	A
Molecular (QPCR-P-500ML)	☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐	☐ Ice			
Tracers (BG-500ML)	☐ W-E8321-DI ☐ W-E8321-MS	☐ Ice			
Pesticides (BG-500ML) (BG-1L)	☒ W-E8321-DI ☒ WE8321-MS ☒ W-PSNP-TQ ☐ W-CT-CL-R	☒ Ice		5	A
	☐ W-PCL-SQ-R ☐ W-CARB-AA (5 ml of MCAA** Buffer Solution) ☐ W-DIELDRIN				
Phytoplankton/Periphyton	DTM-QL-C ☐ PEN-QL-C ☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			
	DTM-QN-C ☐ PRN-QN-C ☐ PKD-QN-BV ☐				

Name:
Heather Schmuki
Frank Butera

Signature:

Date:

03/23/2021

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

Site Name Jack's Branch, 50 m W of HWY 29, 3 mi N of Cantonment

Date: 03/23/2021

Field ID 33010085 Storet 33010085

Project: TMDL Studies/ SMP

Visit ID 81969

RQ: 2021-01-25-57

RPS ID 9683

LIMS ID: 2233513

Macro ID 11780

WBID: 291

HA ID 16789

☒ SCI

☐ RPS/LVS Only

☐ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB, 4/05/21 ☐ Date and Initial QA: _____

☒ RPS entered in SBIO Initial FB, 4/05/21 ☐ Date and Initial QA: _____

☒ LVS entered in SBIO Initial FB, 4/05/21 ☐ Date and Initial QA: _____

☐ < 2 m² vegetation

☒ Plants getting verified Date submitted: InHouse

☒ Plants verified Date returned: In House

☐ RPS authorized in SBIO ☐ Date and Initial: _____

☐ RPS score: _____

☐ Macro authorized in SBIO ☐ Date and Initial: _____

☐ LVS Score: _____

☐ SCI complete: _____ SCI Score: _____

☒ Add SBIO-ID, HA-ID, RPS-ID, MACROPHYTE-ID and LIMS# to field sheet in database

Notes.

WIN-ID changed to 33010085 after sampling, originally planned to be new station, G5NW0164.

ALGAL-ID sample collected.

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID 81969 ORG ID 21 FLPN FB 0 mile LATITUDE 30.65590
 COUNTY Escambia STORET # 65NW0164 LONGITUDE 87.35331
 DATE 03/23/2021 TIME 10:40 CT SAMPLING AGENCY NW ROC
 SITE NAME Jacks Branch WBID 291
 FIELD ID/NAME 65NW0164 33010085 FB RECEIVING BODY OF WATER Perdido River

RIPARIAN ZONE / STREAM FEATURES Storet # 33010085

LIMS ID 2233513

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural ☒ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☒ Commercial ☒ Industry ☐ Other (Specify) ☐								Landscape Development Intensity Index (LDI) 2.66 2010 SBIO	
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☒ Moderate ☐ Heavy						Typical Width (m) Depth (m)/Velocity (m/sec) Transect _____ m wide			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>718</u>				Hydrologic Modification Score (per FT 3101) <u>1-2</u>		_____ m/s <u>0.1</u> m/s _____ m/s			
High Water Mark: <u>1.5</u> + <u>1.2</u> = <u>2.7</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No		_____ m deep <u>1.0</u> m deep _____ m deep			
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % ☐ Open ☒ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)					

SEDIMENT / SUBSTRATE

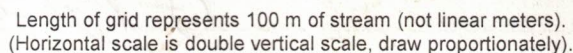
Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse		Sediment Odors ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☒ Anaerobic ☐ Other (Specify): _____		Smothering of Substrates Sand Smothering: ☒ None ☐ Slight ☐ Moderate ☐ Severe Silt Smothering: ☒ None ☐ Slight ☐ Moderate ☐ Severe Algae Smothering: ☒ None ☐ Slight ☐ Moderate ☐ Severe			
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SUBSTRATE TYPE Assessment Tool: ☐ SCI ☒ RPS ☐ LVS ☐ BioRecon ☐ < 2 m ² SAV ☒ Woody Debris (Snags)... <u>10.4</u> <u>5</u> ☒ Undercut Banks / Roots <u>7.2</u> <u>5</u> Leaf Packs or Mat ☒ Aquatic Vegetation <u>12.5</u> <u>5</u> Rock or Shell Rubble..... Sand..... <u>69.9</u> <u>5</u> Mud / Muck / Silt Other Other				WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.2</u> <u>17.0</u> <u>4.48</u> <u>7.47</u> <u>77.7</u> <u>49.0</u> <u>0.02</u> <u>1.2</u> Mid: _____ Bottom: _____ Meter ID: <u>154179</u> Meter verify? ☐ Yes ☐ No <u>1.2</u> Water Odors Normal ☐ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____ Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____							
				Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐							
				Clarity Clear ☐ Slightly Turbid ☒ Turbid ☐ Opaque ☐							

ABUNDANCE	Not Obs.	Rare	Common	Abundant
Periphyton:	☐	☐	☐	☒
Fish:	☒	☐	☐	☐
Aquatic Plants:	☐	☐	☐	☒
Iron/Sulfur Bacteria:	☐	☐	☒	☐

System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐	AMBIENT FIELD CONDITIONS / NOTES: <u>100 miles</u> 30.655889, 87.35204 Sampled August & December 2010 at 33010085 ☒ The antecedent hydrologic conditions have been met to my best knowledge.
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SAMPLING TEAM <u>H Schunk</u> <u>F Butler</u>	SIGNATURE: <u>F Butler</u>	DATE: <u>03/23/2021</u>
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DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: <u>FL DEP- NWROC 2IFLPS</u>		STORET STATION NUMBER: <u>G5NW0164</u> FB	DATE (MM/DD/YY): <u>3/23/2021</u>	RECEIVING BODY OF WATER: <u>Perdido River</u>
REMARKS: WBID 291 33010085	COUNTY: <u>Escambia</u>	LOCATION: <u>Suck's Branch</u>	FIELD ID/NAME: <u>G5NW0164</u> FB	

33010085

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>12</u>	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 18 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 <u>12</u> 11	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed 10 9 8 7 6	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered 5 4 3 2 1
Substrate Availability <u>14</u>	Greater than 30% major productive habitat present at site 20 19 18 17 16	16% to 30% major productive habitat, by aerial extent 15 <u>14</u> 13 12 11	6% to 15% major productive habitat 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>10</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 20 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec <u>0.1</u> 0.09 0.07 0.06 0.05 <u>10</u> 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering <u>11</u> ----- Primary Score <u>47</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 <u>11</u>	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components Artificial Channelization <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. <u>20</u> 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank <u>10</u> Left Bank <u>10</u>	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas. <u>10</u> 9	Only meets 2 of the 3 requirements for optimal bank stability. 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. 3 2 1
Riparian Buffer Zone Width Right Bank <u>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m <u>10</u> 9	Width of vegetation >12 to 18m 8 7 6	Width of vegetation 6 to 12 m. human activities close to system 5 4	Less than 6 m of buffer zone due to intensive human activities 3 2 1
Riparian Zone Vegetation Quality Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>80</u>	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. <u>10</u> 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

127

TOTAL SCORE

Date: <u>3/23/2021</u>	Analyst: <u>F Butler</u>	Signature: <u>F. Butler</u>
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SBIO ID 81969

HA ID16789

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Jacks Branch County: Essex Date: 3/23/21 Investigators: H. Schmitt FB

Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

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Transect (m) Point 1=right 9=left Algal Thickness Rank (N-6, X) Estimated Canopy Cover

STORET Station Number:

G5NW0164 FB

33010085

Secchi depth 0.8
Estimated? 10

points ranked 4-6 82
total points assessed 82
% points ranked 4-6 100

Check accompanying data collected at same site/date.

Algal mat sample X
Linear Veg Survey X
Habitat Assessment X
SCI/Biorecon X
Water sample X

RQ- 2021-01-25-57

Algal Thickness Rank

N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

SBIO ID : **81969**

RPS ID: **9683**

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Jacks Branch

Analyst: Frank Butera

Date: 3/23/2021

County: Escambia

Signature: _____

Storet Number: ~~G5NW0164~~

33010085

Comments:

[illegible]

HERBACEOUS SPECIES												HERBACEOUS SPECIES											
Meter Mark											Specimen collected (check)	Meter Mark											Specimen collected (check)
0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	0-10		10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			
Alternanthera philoxeroides											Micranthemum glomeratum												
Bacopa caroliniana											Micranthemum umbrosum												
Bacopa monnieri											Myriophyllum aquaticum												
Bidens mitis											Najas guadelupensis												
Boehmeria cylindrica											Nuphar luteum												
Centella asiatica											Orontium aquaticum												
Ceratophyllum demersum											Panicum hemitomon												
Chara											Panicum repens												
Cicuta maculata											Panicum rigidulum												
Cladium jamaicense											Pistia stratioides												
Colocasia esculenta											Polygonum glabra												
Commelina diffusa											Polygonum hydropiperoides												
Commelina virginica											Polygonum punctatum												
Crinum americanum											Pontedaria cordata												
Diodia virginiana											Potamogeton illinoensis												
Eichhornia crassipes											Ruellia simplex												
Eleocharis (wispy viviparous)											Sacciolepis striata												
Hydrilla verticillata											Sagittaria kurziana												
Hydrocotyle											Sagittaria lancifolia												
Hygrophila polysperma											Sagittaria latifolia												
Hymenocallis											Salvinia minima												
Lachnanthes caroliniana											Samolus parviflora												
Landoltia punctata											Saururus cernuus												
Lemna											Sparganium americanum												
Limnophila sessiflora											Typha												
Ludwigia leptocarpa											Vallisneria americana												
Ludwigia palustris											Zizania aquatica												
Ludwigia peruviana											Peltandra												
Ludwigia repens											Mayaca												
Luziola fluitans											Woodwardia												
Itza Virginia											Mikania												
Myrica											Xyris												
											Valsineria												
											Suncus (weak roots)												
If no Dominant or Co-Dominant were selected, indicate with "X"																							
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage																					X		
>5 and ≤10% Macrophyte Coverage	X	X																					
>10 and ≤25% Macrophyte Coverage			X	X																			
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

33010085

Field ID G5NW0164

RPS ID 9683

SBIO ID 81969

VPDB ID 11780

LIMS ID 62-160 800 F.A.C. 2233513

page 1 of 2 RQ-2020- RQ-2021-01-25-57

Revision Date: March 1, 2014

Station: Jack's Branch, 50m W of Hwy 29, 3 mi N of Cantonment
 GPS: 30.655889 X -87.35204
 Storet: 33010085 Field ID 33010085
 SBIO Sample ID : 81969
 Macro ID: 11780

Sampled : 03/23/2021
 Sampled By. F. Butera, H. Schmuki
 Location. Cantonment, Escambia
 Receiving Waters: Perdido River
 Lims ID: 2233513

	Taxa	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	C of C	Coll.	Verified
1	<i>Alternanthera philoxeroides</i>	1	1		1	1	1	1	C	1	1	0.00		
2	<i>Centella asiatica</i>	1	1	1	1	1	1	1	1	1	1	1.92		
3	<i>Itea virginica</i>	1	1	1	1	1	1	1			1	7.09		
4	<i>Juncus</i> sp.						1	1						
5	<i>Mayaca fluviatilis</i>	D	D	1	1	1	D	C	C	D	1	8.45		
6	<i>Micranthemum umbros</i>					1								
7	<i>Mikania scandens</i>	1	1	1	1			1				1.95		
8	<i>Myrica cerifera</i>				1							3.82		
9	<i>Orontium aquaticum</i>	1	1	1	1	1	1	1	1	1	1	8.39		
10	<i>Peltandra virginica</i>	1										7.31		
11	<i>Vallisneria americana</i>			D	D	D		C				6.99		
12	<i>Woodwardia areolata</i>	1			1							7.68		
13	<i>Xyris</i> sp.		1		1	1		1	1	1	1			
	Total	8	7	6	10	8	6	9	5	5	6			
	Taxa per section	8	7	6	10	8	6	9	5	5	6	Herb. Taxa		10
	Exotic Present	1	1	0	1	1	1	1	1	1	1	Woody Taxa		2
	Avg. taxa per section	7										Ferns		1
	sections with exotics	9										Macro Algae		0
	Exotic Taxa	1	Exotics per Section: 0.9									Total Taxa		13

Project: FDEP

Laboratory: Wetlands Research Laboratory

Sampler's initials

Page 1 of 1

Method of transport: on ice by hand

Samples delivered by: T. Butler of FDEP

Date/Time: 3/23/2024 1:448

Sample received by: Ch D L of WRL

Date/Time: 03/23/21, 1448

Instructions: Fill in all fields except "Lab ID" on sample transport form completely. Each sample container must use a separate line. Place this form in a waterproof bag and place it with the samples for transport. A field log or other chain of custody is attached; that information may be referenced on this form and the log or COC attached.

[illegible]

Comments: Sample Container lot# L20020#

RQ-2021-01-25-57

Contact organization FDEP

Contact name: Mike King

Phone: 850 595-0605

Address 160 Governmental Center, suite 308, Pensacola, FL 32502

Address	160 Governmental Center, suite 308, Pensacola, FL 32502
Matrix examples:	SW = surface water, PW = pore water, GW = ground water, FW = Freshwater, MW = Marine Water, BW = Brackish Water, S = soil/sediment, Other X =
Type codes:	G = grab, C = composite, X = ³ Recorded using IRT-2
Sampler's name:	Frank Burton

Type codes: G = grab, C = composite, X =