

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN Field Sheet

July 2022

Meter
Passed End
of Day CCV

Yes / No

WIN Station Name:		Wright's Creek				Sample Date:		12/20/2022	
WIN / Field ID:	G3NW0227	ORG ID:	21FLPNS	ENR:		Latitude:	30.8791		
County:	Holmes	WBID:	54	STREAM		Longitude:	-85.6617		
Receiving Body of Water:		Choctawhatchee River				RQ-	2022-12-12-18		

Sampling Team Members	WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Nathan Mulkey			x		x
Hannah Henning	x		x		

Sampling Equipment			
x	Sample Container	Carboy	
	Dipper	Van Dorn	
	Syringe	Pole	
Syringe Lot# 1005533		Filter Lot#	
Secchi Equipment ID:			
Collection Method			
x	Wading	Canoe/Kayak	
	From Shore	Electric Motor	
		Gasoline Motor	
Depth Measured With Meter			

Water Level:	Normal
Flow:	Flowing
Matrix:	Fresh
Tide Stage:	
High Tide:	
Low Tide:	
Photos:	Yes
Meter ID:	154179 (ProDSS)
Depth Gauge ID:	depth_gauge

Time Zone	Time	Total Depth (m)	Sample Depth (m)	DO (mg/L)	DO (%SAT)	Temp. (°C)	pH	Secchi Disk (m)	Sp COND (µmhos/cm)	Salinity (PPTth)
CEN	1030	0.77	0.3	10.2	92.5	11.3	7.13	0.77	126.4	0.06
									VOB (s)	

Biological Samples Collected:		HA LVS RPS								
SBIO Visit ID: 85946	HA ID: 18087	RPS ID: 10034	Macrophyte ID: N/A	LIMS Sample ID Entered Into The Macrophyte Module: 2377015						

Parameter Suite	Parameter Methods (LIMS Test Codes)			Preservation			
				Type	Lot#	Expiration Date	pH Check
Microbiology	E. coli			ICE			
Chlorophyll	CHLSUITE-W			ICE			
Physical/Aggregate Nutrients	ALKALINITY, TURBIDITY, W-F, W-TSS			ICE			
	W-CL-IC, W-COLOR, W-SO4-IC, W-TDS			ICE			
Filtered Nutrients	W-PO4-F	Field Filtered 0.45 µm Filter		ICE	Syringe Lot#:1005533; Filter Lot#:		
Acid Preserved Nutrients	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP			ICE	H2SO4*	2145160	06022023
Metals	W-ICPMS	W-ICP	W-HARD	ICE	HNO3**	2126030	06022023
Organics (LC)	W-E8321-DI	W-E8321-MS			MCAA***		
Macroinvertebrates							
Organics (GC)	W-PSNP-TQ	W-TR-SQ-R		Ice	*2.0 ml of H2SO4 Used Unless Noted Otherwise **2.0 ml of HNO3 Used Unless Noted Otherwise		
Molecular							
Periphyton							
Phytoplankton							
BOD							
DOC							
					SyringeLot#		FilterLot#
Other(s)							
Field Comments:							
Comments on COC:							
Relinquish Date:	12/20/2022	Signature:					

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:

(Initials/Date)

(Initials/Date)

Save Field Sheets on Network: Migrate Data to WIN:

(Initials/Date)

(Initials/Date)

Site Name: Wrights Creek

Date: 12/20/22

Storet 63NWC227 Field ID 63NWC227

Project: SMP

Visit ID 85946

RQ: 2022-12-12-18

RPS ID 10034

LIMS ID: 2377015

Macro ID N/A

WBID: 54

HA ID 18087

☐ SCI

NO SCI

HA/LVS/RPS

☒ RPS/LVS Only

☐ Sample Site Created in SBIO

☒ Phys/Chem entered in SBIO

☒ HA entered in SBIO

Initial FS 1/9/23

☒ Date and Initial QA: 1/20/23 NM

☒ RPS entered in SBIO

Initial FS 1/9/23

☒ Date and Initial QA: 1/20/23 NM

☐ LVS entered in SBIO

Initial _____

☐ Date and Initial QA: _____

☒ < 2 m² vegetation

☐ Plants getting verified

Date submitted: _____

☐ Plants verified

Date returned: _____

☒ RPS authorized in SBIO

☒ Date and Initial: 1/23/23 FB

☒ RPS score: 1.01

☐ 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

☒ E. coli samples shipped to Tallahassee Lab for analysis.

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

SAMPLE ID 85946 ORG ID 21FLPNS LATITUDE 30.8791
 COUNTY Holmes WIN ID/STORET # 631M0227 LONGITUDE 85.6617
 DATE 12/20/22 TIME 1030 CTZ _____ SAMPLING AGENCY FL DEP - NWROC
 SITE NAME Wright's Creek FIELD ID/NAME 631M0227 RECEIVING BODY OF WATER Chick River WBID 54 Project: SMP
 RQ- 2022-12-12-18

RIPARIAN ZONE / STREAM FEATURES

WBID: 54

LIMS ID: 2377015

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) <u>N/A</u>
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 <u>8.0</u> m wide <u>.11</u> m/s <u>.11</u> m/s <u>.11</u> m/s <u>.5</u> m deep <u>.5</u> m deep <u>.5</u> m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>>18</u> Right Bank: <u>>18</u>			Hydrologic Modification Score (per FT 3101) <u>3 - 4</u>				
High Water Mark: ☐ + ☐ = ☐ (m) (above present water level) (present depth) (above bed)			Artificially Impounded ☐ Yes ☒ No				
Artificially ☐ No ☒ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe			Canopy Cover % ☐ Open ☒ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)				

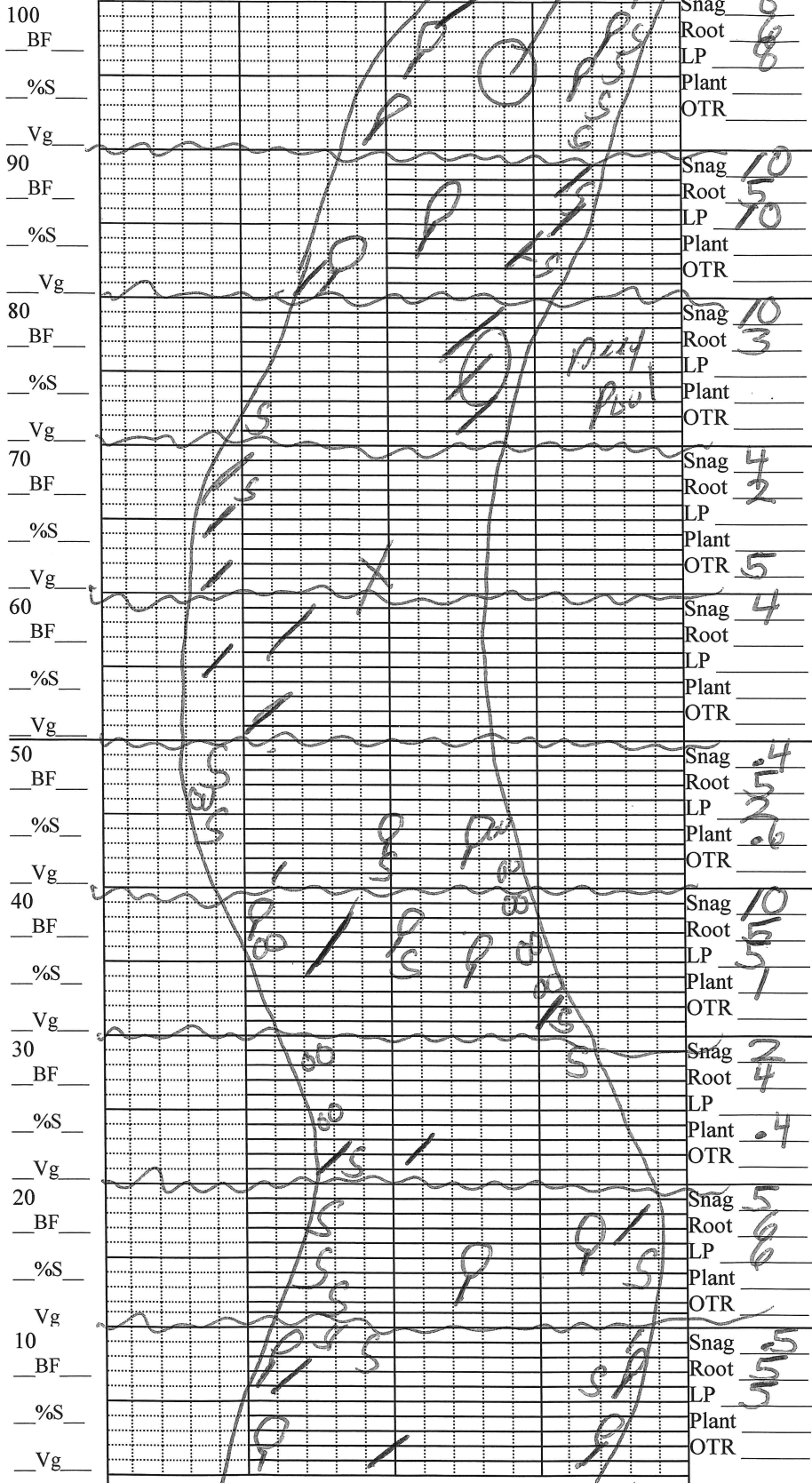
SEDIMENT / SUBSTRATE

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 ☐	
SUBSTRATE TYPE Assessment Tool: ☐ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon		WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>0.3</u> <u>11.3</u> <u>7.13</u> <u>10.2</u> <u>92.5</u> <u>126.4</u> <u>0.06</u> <u>0.77</u> Mid: _____ Bottom: _____ Meter ID: <u>154179</u>			
Woody Debris (Snags) <u>6.8</u> Undercut Banks / Roots <u>5.1</u> Leaf Packs or Mat <u>4.5</u> Aquatic Vegetation <u>23</u> Rock or Shell Rubble.. <u>63</u> Sand..... <u>82.79</u> Mud / Muck / Silt Other Other		Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐ Water 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: ☒ The antecedent hydrologic conditions have been met to my best knowledge.			
SAMPLING TEAM: <u>Nathan Mulvey / Hannah Keening</u>		SIGNATURE: <u>Nathan Mulvey</u>		DATE: <u>12/20/22</u>	

Stream/River Habitat Sketch Sheet, Form FD 9000-4 (June 1, 2001)

Length of grid represents 100 m of stream (not linear meters).

(Horizontal scale is double vertical scale, draw proportionately)



SB10 ID 85946

Downstream

Left Bank

WIN ID G3NW0227

Substrates: Code key, draw proportionate habitat abundance.

☒	Snags	$\frac{54}{800} = 6.8\%$
☐	Roots/undercut banks	$\frac{41}{800} = 5.1\%$
☐	Leaf Packs (or mats)	$\frac{36}{800} = 4.5\%$
☐	Macrophytes	$\frac{1.9}{800} = 0.23\%$
☒	grave	.63%
☐		
☐		

Velocity:

Note where velocity measures were taken. 50 m

Habitat Smothering:

Note areas (on map) where sand or silt is something substrates, limiting habitability.

Bank Stability:

Note areas (on map) with unstable, eroding banks.

Riparian Buffer Width:

Note areas (on map) where natural vegetation is altered or eliminated.

Average width 8 m

Average depth 0.7 m

WQ & chemistry taken @ 0 m

Station Name:

Wright's Creek

Project. SMP/OTMDL studies

Sampled By/Date: 12/20/2022

0 m Latt. 30.87855

0 m Long. 85.66074

100 m Latt. 30.87831

100 m Long. 85.65992

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: DEAR-NWROC. 21FLPNS		STORET STATION NUMBER: <u>63NW0227</u>	DATE (MM/DD/YY): <u>12/20/22</u>	RECEIVING BODY OF WATER: <u>Choct River</u>
REMARKS:	COUNTY: <u>Holmes</u>	LOCATION: <u>Wrights Creek</u>	FIELD ID/NAME: <u>63NW0227</u>	
WBID <u>54</u>				

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock]	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>13</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>13</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 14 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>11</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 0.1 0.09 0.07 0.06 0.05 10 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>48</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 11	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	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks.	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered.	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area.	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks.
Artificial Channelization <u>15</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Bank Stability	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.	Only meets 2 of the 3 requirements for optimal bank stability.	Only meets 1 of the 3 requirements for optimal bank stability.	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas.
Right Bank <u>4</u> Left Bank <u>7</u>	10 9	8 7 6	5 4	3 2 1
Riparian Buffer Zone Width	Width of vegetation greater than 18 m	Width of vegetation >12 to 18m	Width of vegetation 6 to 12 m. human activities close to system	Less than 6 m of buffer zone due to intensive human activities
Right Bank <u>9</u> Left Bank <u>9</u>	10 9	8 7 6	5 4	3 2 1
Riparian Zone Vegetation Quality	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.	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed.	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious.	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions).
Right Bank <u>7</u> Left Bank <u>7</u> ----- Secondary Score <u>58</u>	10 9	8 7 6	5 4	3 2 1

106

TOTAL SCORE

Date: <u>12/20/22</u>	Analyst: <u>Nathan M. Lee</u>	Signature: <u>[Signature]</u>
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SBIO ID: 85946

HA ID: 18087

62-160.800, F.A.C.

Revision Date: March 1, 2014

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Wrights Creek</u>	County: <u>Holmes</u>	Date: <u>12/20/22</u>	Investigators: <u>Nathan Mulkey</u>
			STORET Station Number: <u>G3NW0227</u>

Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	
0	1	N			60	1	N			
	2					2				
	3					3				
	4					4				
	5			28		5				18
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			26		5				44
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4					4				
	5			32		5				22
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			20		5				10
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			16		5				12
	6					6				
	7					7				
	8					8				
	9					9				
50	1	5			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%.					
	2	N								
	3									
	4									
	5			18						
	6									
	7									
	8									
	9									

Secchi depth	<u>0.71</u>
Estimated?	

# points ranked 4-6	<u>2</u>
total points assessed	<u>9</u>
% points ranked 4-6	<u>22</u>

Check accompanying data collected at same site/date.	
Algal mat sample	
Linear Veg Survey	
Habitat Assessment	<u>1</u>
SCI/Biorecon	
Water sample	<u>1</u>
RQ: <u>2022-12-12-18</u>	

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 Visit ID.	<u>85946</u>
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RPS ID.	<u>10034</u>
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DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: <u>Wrights Creek</u>	Date: <u>12/20/22</u>	County: <u>Holmes</u>	Storet Number: <u>G31W0257</u>
Analyst: <u>Nathan Mulkey</u>	Signature: <u>[Signature]</u>		
Comments: <u>1. 2m² (871)</u>			

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)	HERBACEOUS SPECIES	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 monneri												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																							
Ludwigia repens																							
Luziola fluitans																							

Field ID: G3NW0227

RPS ID 10034

SBIO ID 85946

VPDB ID 21A

LIMS ID	2377015
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