

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
CHAIN OF CUSTODY FORM

Date: 2/6/2024 **Collected By:** Jeremy Parrish, Haylee Brown
Customer: NE-DIST **Sampling Agency:** FDEP
RQ: RQ-2024-01-29-29 **Project ID:** SCIREF

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

Number of Coolers Shipped: 2 **Delivery Method:** FedEx

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

Site Location	Field ID/WIN ID
LOCHLOOSA CREEK AT CR 2082	 20020096

RELINQUISHED BY(SIGNATURE):



DATE/TIME: 2/6/2024 1630
EST

THIS SECTION TO BE COMPLETED BY LABORATORY

Rec'd/Inspected By:

**Rec'd/Inspected
Date:**



RQ-2024-01-29-29	Collected By: Jeremy Parrish, Haylee Brown
Customer: FDEP	Field Report Prepared by: Jeremy Parrish, Haylee Brown
Project ID: SCIREF	Sampling Agency: FDEP
WIN ID/Field ID:  WIN ID/Field ID: 20020096	Comments: Changed from overflow micro to Tally lab Ecoli-18QT

Location: LOCHLOOSA CREEK AT CR 2082

Matrix: Fresh

(Check One) ☒ Grab ☐ Composite

Date and Time {EST}	DO (mg/L)	DO (%SAT)	Temp. °C	pH	Sample Depth (m)	Secchi Depth	Total Depth (m)	Sp COND (µmhos /cm)	Salinity (PPT)						
2/6/2024 1100	8.63	82.1	13.1	5.37	0.18	0.38	0.38	67.1	0.03						
Parameter Suite		Parameter Methods				Preservation		pH Check		# Bottles sent to Lab	Bottle Group				
Preserved Nutrients (P-500ML)	X	W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				X	Ice	X	H2SO4*	X	<2	1	A		
		Lot #		Sa3193140		Exp:	07/31/2024								
Metals (P-500ML)	X	W-ICPMS		X	W-ICP	X	W-HARD	X	Ice	X	HNO3*	X	<2	1	A
		Lot #		Na3193130		Exp:	07/27/2024								
Filtered Nutrients (P125ML)	X	W-PO4-F		X	Field Filtered 0.45 um Filter		X	Ice				1	A		
		Filter Lot #	222915		Syringe Lot #	Na									
BOD (BP-1L)		OV-BODUNIN					Ice								
Chlorophyll (BP-1L)	X	CHLSUITE-W				X	Ice		1			A			
Physical/Aggregate (Fresh) (P-1L)	X	Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W- TDS				X	Ice		1			A			
Physical/Aggregate (Marine) (P-1L)		Alkalinity / W-F / W-TSS / TURBIDITY					Ice								
Macroinvertebrates (PJ-2L)	X	MI-FW-QLDC		Formalin Lot #		8.280122TR		X	Formalin			"3"	B		
Periphyton (PT-50ML)		ALGAE-ID					Ice								
Microbiology (Contract Lab Bottle)	X	E Coli			F Coli			Enterococci				X	Ice	1	A
		Contract Lab													
Molecular (QPCR-P-500ML)	X	PCR-HF183		X	PCR-BacR		X	PCR-DG3		X	Ice	1	A		
		PCR-GULL2			PCR-GFD										
Tracers (BG-500ML)		W-E8321-DI			W-E8321-MS			Ice							
Pesticides (BG-500ML) (BG-1L)	X	W-E8321-DI	X	W-E8321-MS		X	W-PSNP-TQ		X	Ice	MCAA Exp.	MCAA Lot#	5	A	
		W-PCL-TQ-R		W-CARB-AA (5 ml of MCAA Buffer Solution)			W-CT-CL-R								
		W-TR-SQ-R			W-PCB-TQ-R										
Phytoplankton (BP-1L)		DTY-QN-C			PKD-QN-BV			Ice							
DOC (P-500ML)		W-DOC		Field Filtered 0.45 um Filter			Ice		H2SO 4*		<2				
			Acid Preservative Expiration Date												
			Acid Preservative Lot Number												

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

SAMPLING AGENCY:		STORET STATION NUMBER: <u>20020096</u>	DATE (MM/DD/YYYY): <u>2/6/24</u>	RECEIVING BODY OF WATER:
REMARKS:	COUNTY: <u>Alachua</u>	LOCATION: <u>Coolidge 2042</u>	FIELD ID/NAME:	

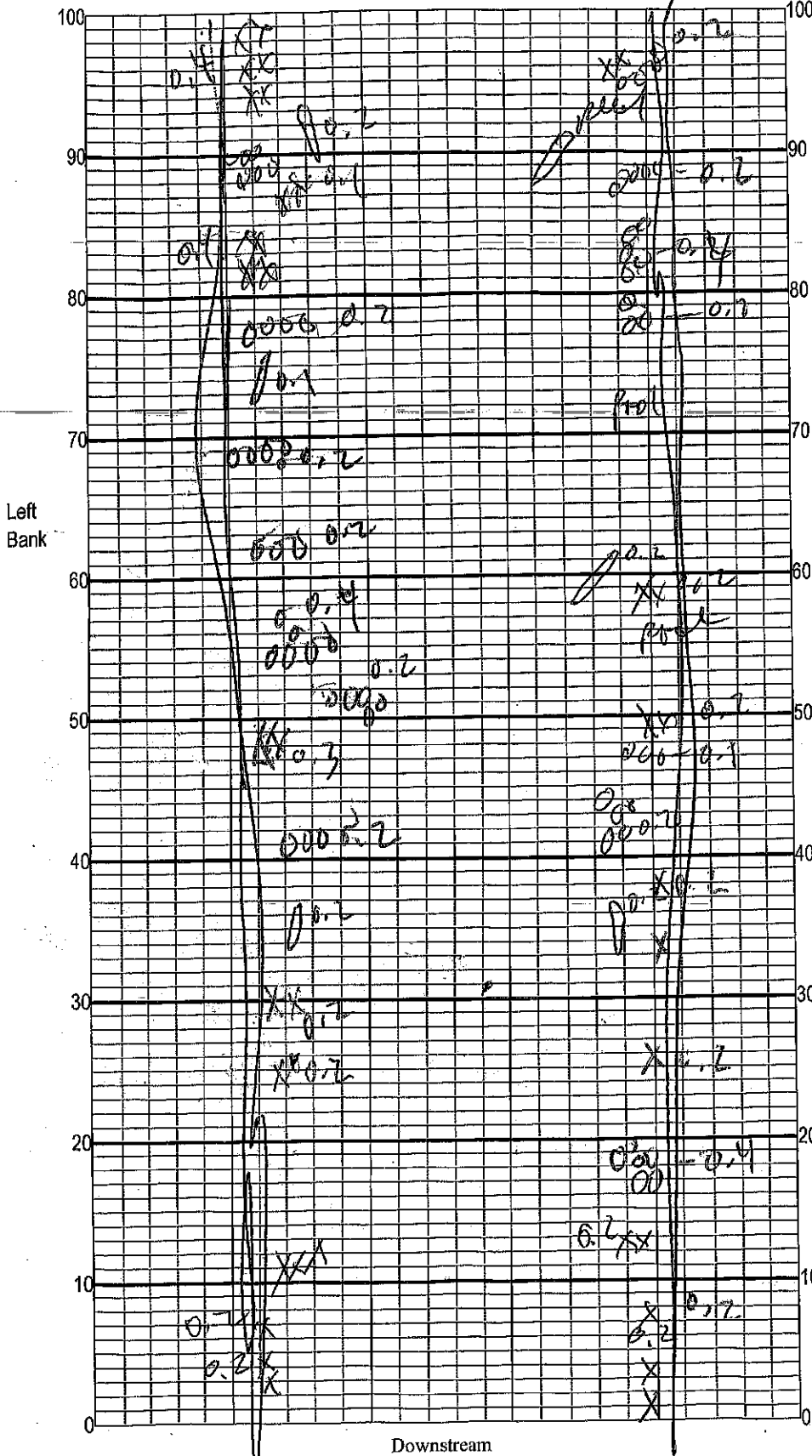
Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh 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 <u>13</u> 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>6</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 <u>6</u>	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>20</u>	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 <u>20</u> 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>18</u> ----- Primary Score <u>57</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 <u>18</u> 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. <u>20</u> 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging or straightening 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 woody 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 woody 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

137

TOTAL SCORE

Date: <u>2/6/24</u>	Analyst: <u>[Signature]</u>	Signature: <u>[Signature]</u>
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DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet



Location: loch 605a @ 2082

Date: 2/6/24

Sampler: JP

100 m: Latitude _____	
Longitude _____	
0 m: Latitude _____	
Longitude _____	
Substrates: Code key, draw proportionate habitat abundance.	
☒ Snags	% <u>41</u>
☒ Roots/undercut banks	% <u>3</u>
☒ Leaf Packs (or mats)	% <u>1.5</u> <u>2</u>
☒ Aquatic Macrophytes	% _____
☐ _____	% _____
☐ _____	% _____
☐ Pools	total # observed = _____ # range expected = _____
Average width _____ m	
Average depth _____ m	
Velocity measured at _____ meter mark.	
WQ & chemistry taken at _____ meter mark.	
Habitat Smothering: Note areas (on map) where sand or silt is smothering 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.	

Plants observed / other notes:

Root = 1.0 + 1.0 + 0.9 + 1.2
 Leaf = 0.4 + 0.2 + 0.4 + 1
 Snags =

Length of grid represents 100 m of stream (not linear meters).
 (Horizontal scale is double vertical scale, draw proportionately).

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

SAMPLE ID _____ ORG ID _____ LATITUDE _____
 COUNTY Alachua STORET # 20020096 LONGITUDE _____
 DATE 2/6/24 TIME 1100 SAMPLING AGENCY _____
 SITE NAME Lochloosa @ 2082
 FIELD ID/NAME _____ RECEIVING BODY OF WATER _____

RIPARIAN ZONE / STREAM FEATURES

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) ☐
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy								Typical Width (m) <u>3</u> m wide Depth (m) <u>0.33</u> m/s Velocity (m/sec) <u>0.38</u> m/s Transect <u>0.38</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) ☐				
High Water Mark: <u>0.3</u> + <u>0.4</u> = <u>0.7</u> (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 ☐
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SUBSTRATE TYPE

Assessment Tool: ☐ SCI ☐ RPS ☐ LVS
☐ LCI ☐ BioRecon

	% Coverage	INVERT # Times Sampled	PERI # Times Sampled
Woody Debris (Snags)	<u>1</u>	<u>5</u>	
Undercut Banks / Roots	<u>3</u>	<u>5</u>	
Leaf Packs or Mat	<u>2</u>	<u>4</u>	
Aquatic Vegetation	<u>0</u>	<u>0</u>	
Rock or Shell Rubble	<u>10</u>	<u>2</u>	
Sand	<u>84</u>	<u>4</u>	
Mud / Muck / Silt	<u>0</u>	<u>0</u>	
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>0.38</u>
Mid								☒ VOB
Bottom	<u>0.38</u>	<u>13.1</u>	<u>5.37</u>	<u>8.43</u>	<u>82.1</u>	<u>67.1</u>	<u>0.03</u>	<u>0.38</u>

Meter ID: DCSI

Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐	Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐
Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: _____ Exp: _____	Color Tannic ☒ Green (Algae) ☐ Clear ☐ Other (Specify) ☐
Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ Exp: _____	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:

Reference S.C.T.
☐ The antecedent hydrologic conditions have been met to my best knowledge.

SAMPLING TEAM

Jerry Penn / Hayden Brown / K. Wagner / K. G. G. G.

SIGNATURE:

Jerry Penn

DATE:

2/6/24

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <i>Lochlossa c 2082</i>					County: <i>Hachen</i>		Date: <i>2/6/24</i>		Investigators: <i>Jan, Rob, K. V. S. L. G. S.</i>	
					STORET Station Number: <i>20020096</i>					
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	N		60	1	N	N		
	2					2				
	3					3				
	4					4				
	5			88		5			86	
	6					6				
	7					7				
	8					8				
	9					9				
10	1	N			70	1	N			
	2					2				
	3					3				
	4					4				
	5			80		5			92	
	6					6				
	7					7				
	8					8				
	9					9				
20	1	N			80	1	N			
	2					2				
	3					3				
	4			87		4				
	5			87		5			87	
	6					6				
	7					7				
	8					8				
	9					9				
30	1	N			90	1	N			
	2					2				
	3					3				
	4					4				
	5			88		5			92	
	6					6				
	7					7				
	8					8				
	9					9				
40	1	N			100	1	N			
	2					2				
	3					3				
	4					4				
	5			89		5			94	
	6					6				
	7					7				
	8					8				
	9					9				
50	1	N				1	N			
	2					2				
	3					3				
	4					4				
	5			94		5				
	6					6				
	7					7				
	8					8				
	9					9				

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%.

Secchi depth
Estimated?

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

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg. Survey
Habitat Assessment
SCI/Biorecon
Water sample
RQ- 2024-01-29-29

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

Waterbody: Loch Lomond 2082	Date: 3/6/24	County: Halloway	Storet Number: 20020096
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Comments:

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	
<i>Alternanthera philoxeroides</i>												<i>Micranthemum glomeratum</i>											
<i>Bacopa caroliniana</i>												<i>Micranthemum umbrosum</i>											
<i>Bacopa monnieri</i>												<i>Myriophyllum aquaticum</i>											
<i>Bidens bitis</i>												<i>Najas guadelupensis</i>											
<i>Boehmeria cylindrica</i>												<i>Nuphar luteum</i>											
<i>Centella asiatica</i>												<i>Orontium aquaticum</i>											
<i>Ceratophyllum demersum</i>												<i>Panicum hemitomon</i>											
<i>Chara</i>												<i>Panicum repens</i>											
<i>Cicuta maculata</i>												<i>Panicum rigidulum</i>											
<i>Cladium jamaicense</i>												<i>Pistia stratioides</i>											
<i>Colocasia esculenta</i>												<i>Polygonum glabra</i>											
<i>Commelina diffusa</i>												<i>Polygonum hydropiperoides</i>											
<i>Commelina virginica</i>												<i>Polygonum punctatum</i>											
<i>Crinum americanum</i>												<i>Pontedaria cordata</i>											
<i>Diodia virginiana</i>												<i>Potamogeton illinoensis</i>											
<i>Eichhornia crassipes</i>												<i>Ruellia simplex</i>											
<i>Eleocharis (wispy viviparus)</i>												<i>Sacciolepis striata</i>											
<i>Hydrilla verticillata</i>												<i>Sagittaria kurziana</i>											
<i>Hydrocotyle</i>												<i>Sagittaria yancifolia</i>											
<i>Hygrophila polysperma</i>												<i>Sagittaria latifolia</i>											
<i>Hymenocallis</i>												<i>Salvinia minima</i>											
<i>Lachnanthes caroliniana</i>												<i>Samolus parviflorus</i>											
<i>Landoltia punctata</i>												<i>Saururus cernuus</i>											
<i>Lemna</i>												<i>Sparganium americanum</i>											
<i>Limnophila sessiflora</i>												<i>Typha</i>											
<i>Ludwigia leptocarpa</i>												<i>Vallisneria spiralis</i>											
<i>Ludwigia palustris</i>												<i>Zizania aquatica</i>											
<i>Ludwigia peruviana</i>																							
<i>Ludwigia repens</i>																							
<i>Luziola fluitans</i>																							