

DEP Form FD 9000-4 Stream/River Habitat Assessment Sketch Sheet

SBIO-ID: 80568 HA-ID: 16463 RPS-ID: 9520
62-160.800, F.A.C MACROPHYTE-ID: 11573 LIMS#: 2132226 Revision Date: January 2017

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

SAMPLING AGENCY: <u>7DEP-SROC</u>		STORET STATION NUMBER: <u>G2SD0024</u>	DATE (MM/DD/YY): <u>10/29/19</u>	RECEIVING BODY OF WATER: <u>Lemon Bay</u>
REMARKS:	COUNTY: <u>Sarasota</u>	LOCATION: <u>Alligator @ Jacaranda</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>3</u>	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 <u>3</u> 2 1
Substrate Availability <u>5</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 <u>5</u> 4 3 2 1
Water Velocity <u>9</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 <u>8</u> 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>6</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 <u>6</u>	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Primary Score <u>22</u>				
Secondary Habitat Components	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 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 <u>3</u> 2 1
Artificial Channelization <u>3</u>				
Bank Stability	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. 10 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. <u>3</u> 2 <u>1</u>
Riparian Buffer Zone Width	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 <u>2</u> 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. 10 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). <u>3</u> <u>2</u> 1
Right Bank <u>2</u> Left Bank <u>10</u>				
Secondary Score <u>24</u>				

46 TOTAL SCORE

Date: <u>10/29/2019</u>	Analyst: <u>Nicole Reistad, Gary Snorek, Chris Hornmuth</u>	Signature: <u>[Signature]</u>
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SAMPLE ID _____ ORG ID 21FLFTM LATITUDE 27.05836
COUNTY Sarasota STORET # _____ LONGITUDE -82.39513
DATE 10/29/2019 TIME 1115 SAMPLING AGENCY 7DEP-SROC
SITE NAME Alligator Creek at Jacaranda
FIELD ID/NAME G2SD00216 RECEIVING BODY OF WATER Lemon Bay

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category):										Landscaping Development Intensity Index (LDI)	
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industry	Other (Specify)				
☒	☒	☒	☒	☒	☒	☒	☒				
Local Watershed Erosion (select one): ☐ None ☒ Slight ☐ Moderate ☐ Heavy										Typical Width (m) Depth (m)/Velocity (m/sec) Transect	
Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy										☒ 10 m wide	
Width of Riparian Vegetation (m) on Each Buffer Side					Hydrologic Modification Score (per FT 3101)						
Left Bank:		Right Bank:									
High Water Mark:		+ 0.5 =			Artificially Impounded						
(m)		(above present water level)			☒ Yes ☐ No						
Artificially					Canopy Cover %						
☐ No					☐ Mostly recovered, more sinuous						
☒ Channelized					☒ Recent, severe						
☐ Some recovery					☐ Heavily Shaded						
					☐ Open						
					☐ Lightly Shaded (11-45%)						
					☐ Moderate Shaded (46-80%)						

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 Woody Debris (Snags) ☐ % Coverage Undercut Banks / Roots ☐ Leaf Packs or Mat ☐ Aquatic Vegetation ☐ Rock or Shell Rubble.. ☐ Sand..... ☐ Mud / Muck / Silt ☐ Other ☐ Other ☐ INVERT # Times Sampled ☐ ☐ ☐ ☐ ☐ ☐ ☐ PERI # Times Sampled ☐ ☐ ☐ ☐ ☐ ☐ ☐				WATER QUALITY <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Depth (M)</th> <th>Temp. (°C)</th> <th>pH (SU)</th> <th>D.O. (MG/L)</th> <th>D.O. Sat (%)</th> <th>Cond. (UMHO/CM)</th> <th>Salinity (PPT)</th> <th>SECCHI (M)</th> </tr> </thead> <tbody> <tr> <td>Top:</td> <td>0.5</td> <td>27.3</td> <td>6.92</td> <td>4.92</td> <td>62.5</td> <td>768</td> <td>0.37</td> <td>0.5</td> </tr> <tr> <td>Mid:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>☒ VOB</td> </tr> <tr> <td>Bottom:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>TOTAL DEPTH 0.5</td> </tr> </tbody> </table> Meter ID: SNEK					Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)	Top:	0.5	27.3	6.92	4.92	62.5	768	0.37	0.5	Mid:								☒ VOB	Bottom:								TOTAL DEPTH 0.5
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Periphyton:	☒	☐	☐	☐																																							
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Aquatic Plants:	☐	☐	☒	☐																																							
Iron/Sulfur Bacteria:	☒	☐	☐	☐																																							
System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other(Specify) ☐				Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐ Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐ Clarity Clear ☐ Slightly Turbid ☐ Turbid ☒ Opaque ☐																																							
AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.				SAMPLING TEAM Nicole Reistad, Gary Snorek, Chris																																							
SIGNATURE: 				DATE: 12/23/2019																																							

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Chris Hornum

Site: Alligator @ Jacaranda County: Sarasota Date: 10/29/19 Investigators: Nicole Heistad, Gary Snorck

STORET Station Number:

G2SD0026

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	2	0	60	1	N	2	0
	2		2			2		2	
	3		2			3		2	
	4		2			4		2	
	5		2			5		2	
	6		2			6		2	
	7		2			7		2	
	8		2			8		2	
	9		2			9		2	
10	1	2	2	0	70	1	2	2	0
	2		2			2		2	
	3		2			3		2	
	4		2			4		2	
	5		2			5		2	
	6		2			6		2	
	7		2			7		2	
	8		2			8		2	
	9		2			9		2	
20	1	2	2	0	80	1	2	2	0
	2		2			2		2	
	3		2			3		2	
	4		2			4		2	
	5		2			5		2	
	6		2			6		2	
	7		2			7		2	
	8		2			8		2	
	9		2			9		2	
30	1	2	2	0	90	1	2	2	0
	2		2			2		2	
	3		2			3		2	
	4		2			4		2	
	5		2			5		2	
	6		2			6		2	
	7		2			7		2	
	8		2			8		2	
	9		2			9		2	
40	1	2	2	0	100	1	2	2	0
	2		2			2		2	
	3		2			3		2	
	4		2			4		2	
	5		2			5		2	
	6		2			6		2	
	7		2			7		2	
	8		2			8		2	
	9		2			9		2	
50	1	2	2	0		1	2	2	0
	2		2			2		2	
	3		2			3		2	
	4		2			4		2	
	5		2			5		2	
	6		2			6		2	
	7		2			7		2	
	8		2			8		2	
	9		2			9		2	

Secchi depth 0.5
Estimated?

points ranked 4-6 0
total points assessed 0
% points ranked 4-6 0

Check accompanying data collected at same site/date.
Algal mat sample
Linear Veg Survey
Habitat Assessment
SCI/Biorecon
Water sample
RQ-2019-10-28-13

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

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: Alligator @ Jacaranda Date: 10/29/19 County: Sarasota Storet Number: G2SDX0026

Analyst: Nick Reistad

Signature: Nick Reistad

Comments:

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1m² 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	
<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 mitis</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 viviparous)</i>												<i>Sacciolepis striata</i>											
<i>Hydrilla verticillata</i>												<i>Sagittaria kurziana</i>											
<i>Hydrocotyle</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		<i>Sagittaria lancifolia</i>											
<i>Hygrophila polysperma</i>												<i>Sagittaria latifolia</i>											
<i>Hymenocallis</i>												<i>Salvinia minima</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
<i>Lachnanthes caroliniana</i>												<i>Samolus parviflora</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 americana</i>											
<i>Ludwigia palustris</i>												<i>Zizania aquatica</i>											
<i>Ludwigia peruviana</i>			✓									<i>Ceratophyllum demersum</i>	✓	✓									
<i>Ludwigia repens</i>												<i>Eleocharis (wispy viviparous)</i>	✓	✓									
<i>Luziola fluitans</i>												<i>Wetzelia</i>											
												<i>trilobata</i>											
												<i>Sphagneticola</i>											
If no Dominant or Co-Dominant were selected, indicate with "X"	X	X	X	X	X	X	X	X	X	X													
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage						X	X	X	X	X													
>5 and ≤10% Macrophyte Coverage			X	X																			
>10 and ≤25% Macrophyte Coverage	X																						
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							