

Site Name Z1SL12017 (Lewis Bear #2)

Date 09/26/2018

Field ID Z1SL12017 Storet 54307

Project: Status Small Lakes

Visit ID 79293 WBID

RQ: 2018-09-03-12

RPS ID N/A

LIMS ID 2028861

Macro ID 11248

Sampled By: Frank Butera

HA ID 15706

Mike King

☒ LVI

☐ RPS/LVS Only

☒ Sample Site Created in SBIO

☐ Phys/Chem entered in SBIO

☒ HA entered in SBIO Initial FB 3/28/2019

☒ Date and Initial QA: mk 4/3

☐ RPS entered in SBIO Initial

☐ Date and Initial QA:

☒ LVI entered in SBIO Initial FB 3/28/2019

☒ Date and Initial QA: mk 4/3

☒ < 2 m² vegetation

☒ Plants getting verified

Date submitted:

☒ Plants verified

Date returned: 03/26/2019

☒ LVI authorized in SBIO mk 4/3

☒ LVI score: 48



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SURFACE WATER FIELD SHEET
Watershed Monitoring Section
January 2016

STATION INFORMATION

Station Name (Random ID for Status): Z1-SL-12017 Date: 09/26/2018
(MM/DD/YYYY)
Waterbody Name: _____ All Times Are: (circle one) ETZ of CTZ
(if known) Daylight Savings Time Observed (mid Mar. - early Nov.)? Yes / No
Waterbody Type: Small Lake (≥ 4 and < 10 hectares) Large Lake (≥ 10 hectares)
(Circle One) (collect samples in middle of open water) (collect samples at selected location point)
Stream Canal River
(collect samples in representative area) (collect samples in representative area)
Field Sheet Completed by: MIKE KING WQ Sample Collected by: MIKE KING

WATER CHARACTERISTICS

Total Water Depth: 2.3 (meters) Secchi Depth: 0.5 (meters) Stage: _____ (feet)
(Average of 2 measurements) (from SHADED side) (if applicable)
Stream/River/Canal Flow: N/A No Flow Flow within Banks Flow Above Banks
(Circle One) (waterbody not stream/river/canal) (please comment if avg. velocity is < 0.05 m/s) (For Status sites, DO NOT sample if flooded above banks.)
Water Level: (Circle One) Low Normal High
Water Sample Collection Device: Direct Grab with Sample Bottle Van Dorn # of grabs Dipper Other _____
(Circle One) Equipment ID (if applicable): _____

FIELD MEASUREMENTS

Meter ID# <u>113529</u>		Read by:				
Time (24 hr.)	Surface Depth Collected (meters)	Temperature (°C)	Specific Conductance (µmhos/cm)	D.O. (%)	D.O. (mg/L)	pH (SU)
<u>1055</u>	<u>0.3</u>	<u>27.69</u>	<u>70</u>	<u>70.8</u>	<u>5.56</u>	<u>7.07</u>
Time (24 hr.)	Bottom Depth Collected (meters)	Temperature (°C)	Specific Conductance (µmhos/cm)	D.O. (%)	D.O. (mg/L)	pH (SU)
<u>1100</u>	<u>1.8</u>	<u>27.62</u>	<u>69</u>	<u>38.1</u>	<u>3.01</u>	<u>6.91</u>

PRESERVATION INFORMATION

☐ N/A (No samples collected; please state why in comments.)

Were all samples (including QA/QC blanks) properly preserved within 15 minutes of collection? Yes / No
1 vial sulfuric acid added to nutrients sample(s)? Yes / No Sulfuric acid info: (circle one) Chem ID / Lot # SA 8161020
1 vial nitric acid added to metals sample(s)? Yes / No Nitric acid info: (circle one) Chem ID / Lot # NA 8980070
pH of all acidified samples verified to be < 2? Yes / No SCI samples preserved with buffered formalin? Yes / No NA
All water & sediment samples placed in wet ice (≤ 6°C)? Yes / No
(Please describe any variations to this preservation protocol in the comments section below.) Preserved By: MIKE KING

QA/QC SAMPLE INFORMATION

QA/QC Sample: N/A Field Blank Equipment Blank
(Circle One) (Field-cleaned) (Lab-cleaned)
Equipment Used: _____ Time: _____ (24 hr.)
Collected by: _____

Photos Taken? Yes / No / Not Due
(Required for all Status sites. Required annually for Trend sites.)

Fuel Powered Equipment Used? (e.g. boat motor) Yes No

Weather Conditions: MOSTLY CLOUDY

Personnel/Visitors On Site: MIKE KING
FRANK BUTERH



Z1-SL-12017

Z1SL1000 Z1-SL-12017

Place QA/QC Label Here
(if applicable)

Station Name (Random ID for Status): Z1-SL-12017

Date: 09/26/2018

SEDIMENT INFORMATION (For Lakes only)

☐ N/A (Site not a Lake or no samples collected. If no samples collected, please state why in comments.)

Collection Depth: 2.3 (meters) (Total Water Depth) Collection Time: 1105 (24 hr.)
(Different than surface and bottom time in Field Measurements section)

Collection Interval: (Circle) Top 3-5 cm Other: _____ (cm)
(If top 3-5 is too flocculent)

General Sample Collection Area: Center of Lake
(Describe: near shore, central, north side near dock, etc.)

Sample Collection Device: (Circle One) Corer Ekman Petite Ponar Equipment ID: ED 1

Sediment Type: (Circle All That Apply) Clay/Silt Sand Gravel/Shell Rubble *Organic Muck
(very fine-grained flocculent organic material)

Sediment Odors: (Circle One) Normal Sewage Petroleum
Hydrogen Sulfide Other: _____

Sediment Color: Brown w/ white flecks

Number of Grabs Collected (3 minimum): 3 Collected by: MIKE KING

BIOASSESSMENT INFORMATION

Stream Condition Index Information (Appropriate Trend sites)

Was the SCI sample collected? Yes / No / Not Due / NA (not an appropriate Trend site) Collection Time: _____ (24 hr.)
(Circle One) (Different than surface and bottom time in Field Measurements section)

If site was an appropriate Trend stream or river but "NO" was selected, why was the SCI not collected (flooded, <0.05 m/s velocity, etc.)?

Collected by: _____

Habitat Assessment Information (All Status Streams, Rivers, & Canals; Trend sites appropriate for SCI)

Was the HA performed? (Circle One) Yes / No / Not Due / NA (site not a Status Stream/River/Canal or appropriate Trend site)

If site was a stream, river or canal but "NO" was selected, why was the HA not performed (dangerous site conditions, etc.)?
SR10 ID 79293
HA ID 15706
Performed by: F. BUTERA

Rapid Periphyton Survey Information (Trend sites appropriate for SCI)

Was the RPS performed? (Circle One) Yes / No / Not Due / NA (not an appropriate Trend site) ALGAL-ID sample collected? (circle one) Yes No

If site was an appropriate Trend stream or river but "NO" was selected, why was the RPS not performed (dangerous site conditions, etc.)?

Performed by: _____

Linear Vegetation Survey Information (Trend sites appropriate for SCI) / **Lake Vegetation Index Information** (Status Lakes)

Was the LVS performed? (Circle One) Yes / No / Not Due / NA (not an appropriate Trend site) Number of Plant ID specimens collected: 3

Was the LVI performed? (Circle One) Yes / No / Not Due (LVI performed previous year) / NA (not a Status Lake)

If site was an appropriate Trend stream or river but "NO" was selected, why was LVS not performed (<2 m² aquatic vegetation, dangerous site conditions, etc.)?
If site was a Status Lake but "NO" was selected, why was LVI not performed (LVI will be performed at later date, dangerous site conditions, etc.)?
MAcro-ID 11248
Performed by: F BUTERA

Comments: Include information such as: estimated level of impact to the system (ex. obvious pollution, etc.), any variations from normal preservation protocols (ex. adding more than 1 vial acid, etc.), any problems experienced with collecting samples (ex. sediment grab 1 lost due to fall-out, etc.), any site specifics (ex. dense submerged vegetation, etc.), any site conditions (ex. recent heavy rains, etc.), description of any photos taken, etc., any qualifiers needed (ex. "J" for failed calibration verification, etc.), etc.

Invasive Exotic Apple Snail eggs present:

Yes No
(pink, clustered, small, numerous eggs)

Sampler Names: (PLEASE PRINT) MIKE KING
FRANK BUTERA

Sampler Signatures: [Signature]
[Signature]

OFFICE USE ONLY

Reviewed for completion by: _____ Date: _____

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: 79293 MACROPHYTE ID: 11248 LATITUDE: N 30.73076
 COUNTY: Okaloosa (Crestview) STORET #: 54307 LONGITUDE: W -86.68348
 DATE: 09/26/2018 TIME: 10:30-11:30 CTZ SAMPLING AGENCY: FL DEP - NWROC (21FLPNS)
 SITE NAME: Z1-SL-12017 (Lewis Bear Lk. # 2) WBID: 348
 FIELD ID/NAME: _____ LAKE SIZE: 13 acres RQ: 2018-09-03-12

WATERSHED / LAKESIDE FEATURES LIMS ID 2428861

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category - from GIS): Forest/Natural ☒ Silviculture ☐ Field/Pasture ☐ Agricultural ☐ Residential ☐ Commercial ☐ Industrial ☒ Other (Specify) ☐					LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer) LDI: <u>1.67</u>				
Local Watershed Erosion (select one): ☐ None ☐ Slight ☐ Moderate ☒ Heavy Local Watershed NPS Pollution: ☐ No evidence ☐ Slight ☐ Moderate ☒ Heavy					Artificially Impounded ☒ Yes ☐ No				
STORMWATER INPUTS <u>5</u>					Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 20 19 18 17 16				
Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 15 14 13 12 11					Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 10 9 8 7 6				
Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 5 4 3 2 1					Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5 4 3 2 1				
LAKESIDE ALTERATIONS <u>12</u>					Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected) 20 19 18 17 16				
Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected) 15 14 13 12 11					Many structures, roads or other human disturbance visible (50%-70% lakeside affected) 10 9 8 7 6				
Highly developed or disturbed (>70% of lakeside affected) 5 4 3 2 1					Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16				
89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11					50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6				
< 29% of shoreline with >18m buffer 5 4 3 2 1					BUFFER ZONE <u>to 10 FB</u>				
Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 20 19 18 17 16					89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 15 14 13 12 11				
50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 9 8 7 6					< 29% of shoreline with >18m buffer 5 4 3 2 1				

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☐ Yes ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____ Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____							
Meter Readings: Top: <u>10.85</u> Depth (M) <u>0.3</u> Temp. (°C) <u>27.69</u> pH (SU) <u>7.07</u> D.O. (MG/L) <u>5.56</u> D.O. Sat. (%) <u>70.7</u> Cond. (UMHO/CM) <u>74</u> Salinity (PPT) <u>0.03</u> Mid-Depth: _____ Bottom: <u>11.00</u> <u>1.8</u> <u>27.62</u> <u>6.91</u> <u>3.01</u> <u>38.1</u> <u>69</u> <u>0.02</u> Meter ID: <u>13529</u>								Clarity: ☐ Clear ☒ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☒ Green SECCHI (M) <u>0.5</u> Total Station Depth (M) <u>2.3</u> VOB ☐							

Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☒ Other (Specify): <u>Algae</u>				Sample Taken? ☒ Yes ☐ No			
Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? ☐ Yes ☒ No Active Vegetation Mgmt? ☐ Yes ☐ No ☒ Don't Know				Abundance: Absent Rare Common Abundant Periphyton ☐ ☐ ☐ ☒ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☒ ☐ ☐ ☐ Exotic Apple Snails ☒ ☐ ☐ ☐			

Additional Notes: <u>Grass Carp,</u> <u>Fish Forster III</u> <u>HUG Trap?</u> <u>DAM open</u> <u>Water Sample 10:55 CTZ</u>			
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Weather Conditions: RAIN throughout week b in AM light cloudy/overcast.
One of a series of impoundments on tributary to Bassett Creek.

SAMPLING TEAM: Frank Butera, Mike King SIGNATURE: [Signature] DATE: 9/26/2018

STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION
Lake Habitat Assessment Field Sheet

Store/ WIN ID NUMBER: 54367	DATE (M/D/Y) 9/26/18	LAKE NAME: Z1-SL-12017 (Lewis Bear Pond #2)		FIELD ID / NAME: Z1-SL-12017
ECO-REGION: 348	COUNTY: Okaloosa	SAMPLING LOCATION/DESCRIPTION: Crestview, FL		LAKE SIZE: 13 Acres
PARAMETER	No surface inflow or outflow present, very long water residence time, groundwater seepage dominates ☐	Surface water inflow present, but flow is rare, moderate to long water residence time ☐	Surface water inflow and outflow present (or outflow only), sometimes with visible flow, short water residence time ☐	Impounded, hydrology of system artificially controlled ☒
HYDROLOGY				
Color	Very clear, uncolored water (benthic sampling appropriate) ☐	Water somewhat tannin stained (benthic sampling appropriate) ☒	Dark, discolored water (water color 20 PCU or higher) ☐	Visibility extremely reduced due to high color ☒
	Optimal	Suboptimal	Marginal	Poor
Secchi	Secchi > 3 m Or VOB	Secchi(m)		
5	20 19 18 17 16	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Vegetation Quality	Diverse, expected native vegetation (emergent or submersed), less than 5% nuisance taxa 5	Mostly expected native plants, but moderate growths (6%-20% of lake) of nuisance macrophytes, or more than 50% of lake covered with plants 5	Large masses (21%-40%) of nuisance macrophytes (e.g., Hydrilla, hyacinth, cattail, etc.) or algal mats 5	Lake choked (>40%) with nuisance macrophytes (duckweed, hyacinth, etc.) or algal mats, or few plants present at all (e.g., plants removed) 5
Stormwater Inputs	Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation 5	Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place 5	Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place 5	Much direct input of stormwater (ditches, pipes, cultivated vegetation > 51%) and no or ineffective BMPs in place 5
Bottom Substrate Quality	Diverse mixture of sand, detritus, with small amounts of CPOM/mud/muck. SAV may be present 2 4	Mixture of sand or clay and detritus with higher % CPOM/mud/muck content. SAV may be present 2 4	Moderate layer of CPOM/mud/muck, or hardpacked sand only, or moderate algal growth (mats or Chara) on bottom 2 4	Thick deposits of CPOM, or fine detritus and anaerobic muck/mud/silt, or algal growth, or nuisance plants (Hydrilla) cover bottom 2 4
Lakeside Adverse Human Alterations	Very few man-made structures, roads, or other disturbance adjacent to lake (<10%) 12	Moderate disturbance visible (structures, roads or other), 10%-49% lakeside affected 12	Many structures, roads or other human disturbance visible (50%-70%) lakeside affected 10	Highly developed or disturbed (>70% of lakeside affected) 10
Upland Buffer Zone	Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer 10 6	89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer 10 6	50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer 10 6	< 29% of shoreline with >18m buffer 10 6
Adverse Watershed Land Use	Score the potential effects from adverse human land uses, based on a continuum of amount and type, with least to most adverse as follows: Native vegetation, Silviculture, Pasture or Citrus, Low Density Residential, Row Crops, Commercial, High Density Residential, Urban, Industrial 10			

TOTAL SCORE

49

COMMENTS:

Emergent & SAV's replaced by Black Algae

ANALYSIS DATE:

9/26/18

ANALYST: Frank Butera,

Mike King

SIGNATURE:

[Signature]

SBIO ID:

79293

HA ID:

15706

RQ-2018-09-03-12

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Z1-SL-12017 (Lewis Bear 2)					County: Okaloosa (Crestview)					Date: 9/26/2018				
Analyst: F. Butera, M. King					Signature: <i>[Signature]</i>					STORET:				
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold= FLEPPC invasive exotic.														
It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.														
SBIO ID <u>79293</u> <u>LIMS ID</u> SPECIES <u>2428861</u>					Collect ed? (v)					Macro ID <u>11248</u> SPECIES				
1 4 7 10					1 4 7 10					Collect ed? (v)				
Acer rubrum					Habenaria repens									
Alternanthera philoxeroides					Hydrilla verticillata									
Andropogon sp.					Hydrocotyle sp.					1 1 + 1				
Azolla filiculoides (A. caroliniana)					Hygrophila polysperma									
Baccharis sp.					*Hypericum fasciculatum									
Bacopa caroliniana					*Hypericum hypericoides									
Bacopa monnieri					*Hypericum myrtifolium									
Bidens laevis					Ilex cassine									
Bidens mitis					Ipomoea aquatica									
Blechnum serrulatum					Ipomoea sagittata									
Boehmeria cylindrica					Itea virginica									
Brasenia schreberi					Juncus effusus									
Cabomba caroliniana					*Juncus marginatus									
Casuarina equisetifolia					*Juncus megacephalus									
Centella asiatica					Juncus repens									
Cephalanthus occidentalis					*Juncus scirpoides									
Ceratophyllum demersum					Lachnanthes caroliniana									
Chara sp.					Leersia hexandra									
Cladium jamaicense					Landoltia punctata (Spiro. punctata)									
Cliftonia monophylla					Lemna sp.									
Colocasia esculenta					Leucothoe racemosa (E. racemosa)									
*Commelina					Limnium spongia									
Crinum americanum					Limnophila sessiliflora									
*Cyperus alternifolius (C. involucratus)					Liquidambar styraciflua									
Cyperus articulatus					*Ludwigia arcuata									
Cyperus haspan					*Ludwigia carpa					1 1 1 1				
*Cyperus lecontei					*Ludwigia lineata									
*Cyperus polystachyos					*Ludwigia octovalvis									
*Cyperus odoratus					*Ludwigia peruviana									
*Cyperus surinamensis					*Ludwigia repens									
Cyrilla racemiflora					*Ludwigia									
Decodon verticillatus					Luziola fluitans (H. carolinensis)					1 1 1				
Diodia virginiana					Lyonia lucida									
*Echinochloa crus-galli					Magnolia virginiana									
*Echinochloa muricatum					Mayaca fluviatilis									
Echinochloa walteri					Melaleuca quinquenervia									
Eclipta prostrata (E. alba)					Micranthemum glomeratum									
Egeria densa					Micranthemum umbrosum									
Eichhornia crassipes					Mikania scandens					1 1				
*Eleocharis baldwinii					Mimosa pigra									
*Eleocharis					Myrica cerifera					1 1 1 1				
Eleocharis cellulosa					<i>Cyperus americanus</i>					1 1 1 1				
Eleocharis equisetoides					<i>Cyperus glaucus</i>					1 1 1 1				
Eleocharis interstincta					<i>Cyperus</i>					1 1 1 1				
*Eriocaulon compressum					<i>Dichanthium - scab</i>					1 1 1 1				
*Eriocaulon decangulare					<i>Arctostaphylos</i>					1 1 1 1				
Eupatorium capillifolium					<i>Test & fruit</i>					1 1 1 1				
*Fuirena														
Fuirena scirpoidea														
Gordonia lasianthus														

RQ-2018-09-03-12

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Waterbody: Waterbody: Z1-SL-12017 Storet:					Date: 9/26/2018	SBIO ID 79243 Macro ID 11248					
SPECIES	1	4	7	10	Collect ed? (✓)	SPECIES	1	4	7	10	Collect ed? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.						Scirpus cyperinus					
Nymphaea odorata						*Sesbania					
Nymphoides aquatica						Solidago sp.		1		1	
Nyssa sylvatica var. biflora		1	1			Sparganium americanum					
Orontium aquaticum						Spartina bakeri					
Osmunda cinnamomea						Spirodela polyrhiza					
Osmunda regalis						Taxodium sp.					
Panicum hemitomon						Thalia geniculata					
Panicum repens						Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum		1	1	1	
*Paspalum repens						Typha sp.					
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.			1			*Utricularia gibba (U. biflora)					
Persea sp.						*Utricularia floridana					
Pennisetum purpureum						*Utricularia foliosa					
Phragmites australis						*Utricularia inflata					
Pinus elliotii						*Utricularia purpurea					
Pistia stratioides						*Utricularia cornuta					
Pluchea sp.						*Utricularia radiata					
*Polygonum glabrum (densiflorum)						Vallisneria americana					
*Polygonum hydropiperoides		1			✓	*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphag. trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuck. pectinatus)						So Red-top P. heterophylla					
Proserpinaca pectinata						Vitis		1	1	1	
*Rhexia						Black alga		1	1	1	
*Rhynchospora corniculata						Alnus scrub					
*Rhynchospora inundata						Rhynchospora					
Rhynchospora tracyi						Blue-Green Alga		1			
Ricciocarpus natans						Phyllanthus		1			
Sabal palmetto											
Sacciolepis striata		1	1	1							
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											
Rubus		1	1								
RQ-2018-09-03-12											

*Schoenoplectus tabernaemontani = Scirpus validus

DEP-SOP-001/01
FS 7000 General Biological Community Sampling

Form FD 9000-2: COMPOSITE LAKE SAMPLING SHEET (< 1000 ACRES)

Date: 9/26/18		Name of Lake: Z1-L-12017. Lewis Bear Pond #2		Gear used: <u>PONAR</u>	EKMAN	OTHER
Comments:						
Drop #	Depth (m)	Sediment Type (circle all that apply)	Drop #	Depth (m)	Sediment Type (circle all that apply)	
1	5.0 m up algae	sand, silt/clay, CPOM, muck, SAV <u>CPOM</u>	7	A	<u>Algae</u> sand, silt/clay, CPOM, muck, SAV	
2		sand, silt/clay, CPOM, muck, SAV	8		sand, silt/clay, CPOM, muck, SAV	
3		sand, silt/clay, CPOM, muck, SAV	9		sand, silt/clay, CPOM, muck, SAV	
4		sand, silt/clay, CPOM, muck, SAV <u>Algae</u>	10		<u>Algae</u> sand, silt/clay, CPOM, muck, SAV	
5		sand, silt/clay, CPOM, muck, SAV	11		sand, silt/clay, CPOM, muck, SAV	
6	2.3	sand, silt/clay, CPOM, <u>muck</u> , SAV	12		sand, silt/clay, CPOM, muck, SAV	

CPOM = coarse particulate organic matter; SAV = submerged aquatic vegetation

WIN ID: 54307 Field ID Z1SL12017 Project Status Small 2018
WBID 348 RQ-2018-09-03-12

SBIO ID: 79293

Paste map here and show location of each dredge drop and where water chemistry parameters were collected.

Photo Log

Storet

Station Name: Z1-SL-12017. Lewis Bear Pond #2

Date: 9/26/2018

Samplers. F. Butera, M. King

- 1 Z1-SL-12017. Point North
- 2 ~~2~~ Point - East
- 3 Point - South
- 4 Point - West
- 5 Seet ~~10~~ A7 - Algae Mott
- 6 Seet. 9 - North Dam
- 7 Seet 10 - Black Algae
- 8 Seet 1 - Hug Trap & Reeking
- 9 Seet 1 - Blue-Green Algae
- 10 Seet 3 - looking North
- 11
- 12
- 13
- 14
- 15
- 16
- 17

Notes.