



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?
☒ Yes ☐ No

NO-cab

WIN Station Name: Little Rocky Creek upstream of Eglin Rd 515 Date: 30.59035 (mm/dd/yyyy)
WIN/ Field ID: G3NW0104 G3NW0103 cab WBID: 476 Latitude: 30.59035 30.59083
County: Okaloosa ORG ID: 21FLPNS Longitude: 86.59035 86.41315
Receiving Body of Water: Rocky Creek RQ-2019- 04-08-31

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
MIKE KING					☒	☒	☒	☒	☒
STOFFER SCODE					☐	☐	☐	☐	☐
MYRAUNDA CLARKE					☐	☐	☐	☐	☐

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with <u>water</u>		
Equipment ID		

Collection Method		
☒ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☐ Other	☐ Gasoline Motor	

Water Level:	Photos:	Flow:	Meter ID#	Matrix:
Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded	<u>Yes</u> / No	No Flow / Intestinal / <u>Flowing</u> / NA	<u>54179</u>	Fresh / Marine / DI

Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)
EST	<u>1210</u>	<u>0.8</u>	<u>0.3</u>	<u>0.8(S)</u> <u>VOB</u>	<u>8.44</u>	<u>96.7</u>	<u>5.28</u>	<u>0.00</u>	<u>12.2</u>	<u>22.4</u>
CEN										

Biological Samples Collected: None HA SCI RIS Algae ID LVS LVI Other:

SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:

Parameter Suite	Parameter Methods	Preservation	Lot#	Expiration	pH Check
Preserved Nutrients	☐ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☐ H2SO4	<u>SA 8274050</u>	<u>10/01/19</u>	☒ <2
Metals	☒ W-ICPMS ☒ W-ICP	☒ Ice ☐ HNO3	<u>NA 8344050</u>	<u>12/10/19</u>	☒ <2
Filtered Nutrients	☒ W-PO4-F ☐ Field Filtered 0.45 um Filter	☐ Ice	<u>15159049</u>		
Chlorophyll	☐ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-BR-IC / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☒ MI-FW-QLDC	☒ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☒ E Coll ☐ F Coll ☐ Enterococci	☐ Ice			
Molecular	☐ PCR-FILTER ☐ PCR-Back ☐ PCR-GULL2 ☐ PCR-HF183 ☐ PCR-DG3 ☐ PCR-GFD	☐ Ice			
Tracers	☒ W-E8321-DI ☒ W-E8321-MS	☒ Ice			
Pesticides	☒ W-PSNP-TQ	☒ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Notes:

Place Label Here

Signature: [Signature] Date: 5/22

LIMS EVENT ID: WIN Import ID:

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

Scan/Save Field Sheets Migrate Data to WIN: Verify Data in WIN:

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

SAMPLE ID _____ ORG ID 21FLPNS LATITUDE 30.59021
 COUNTY OKALOOSA STORET # G3NW0104 LONGITUDE 86.41290
 DATE 5/28/19 TIME 1210 SAMPLING AGENCY FDEP NW ROC
 SITE NAME LITTLE ROCKY CREEK UPSTREAM OF Egin Rd 515
 FIELD ID/NAME G3NW0104 RECEIVING BODY OF WATER ROCKY CREEK

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) <u>erosion control Restoration project</u> AIR FORCE BASE						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) Depth (m)/Velocity (m/sec) Transect <u>3.0</u> m wide <u>0.25</u> m/s <u>0.5</u> m/s <u>0.33</u> m/s <u>0.4</u> m deep <u>0.8</u> m deep <u>0.4</u> m deep
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>>18</u>			Hydrologic Modification Score (per FT 3101) ☐			
High Water Mark: <u>1.2</u> + <u>0.5</u> = <u>1.7</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%)			

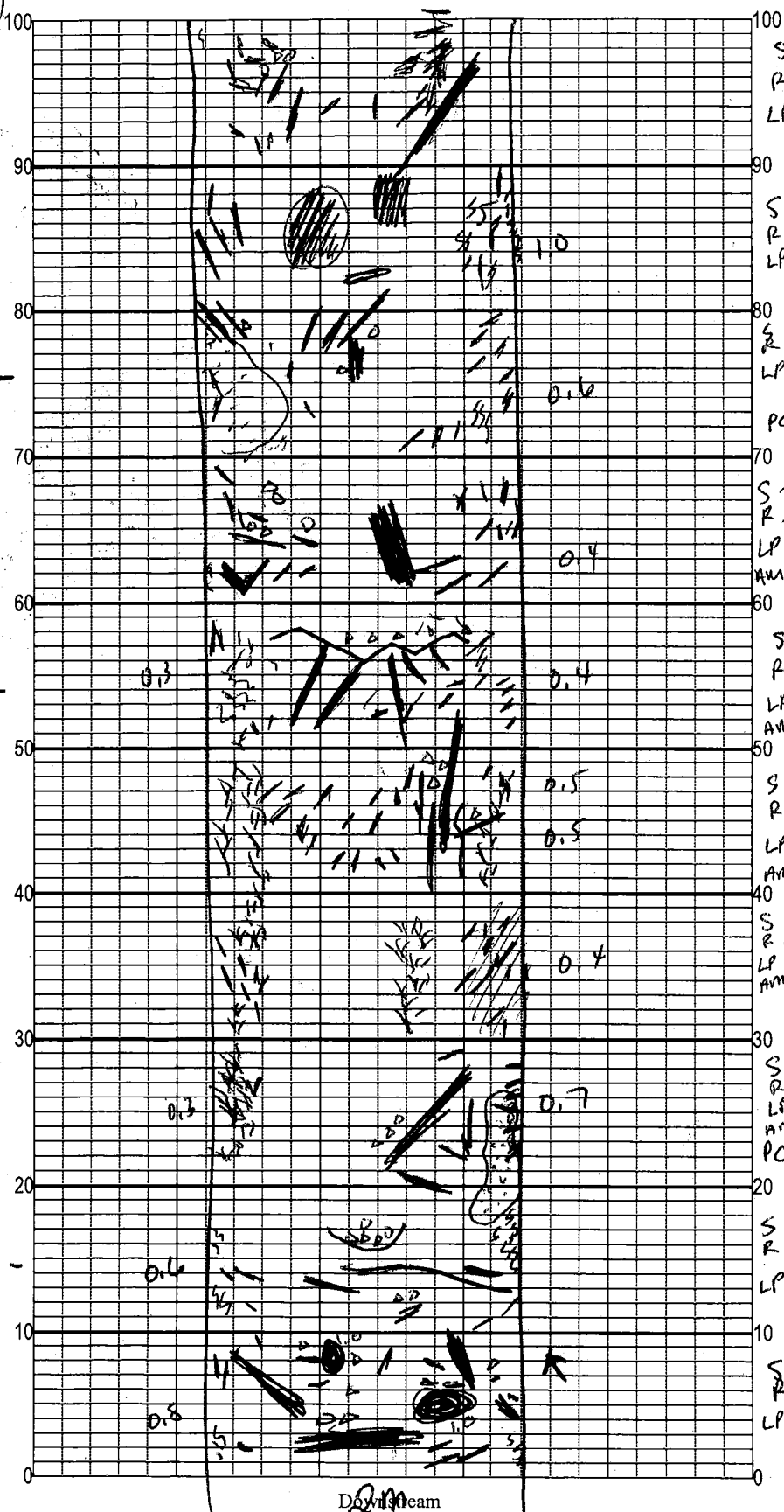
SEDIMENT / SUBSTRATE

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 ☐		
SUBSTRATE TYPE Assessment Tool: ☐ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon % Coverage INVERT # Times Sampled PERI # Times Sampled Woody Debris (Snags) <u>31</u> <u>4</u> Undercut Banks / Roots <u>6</u> <u>4</u> Leaf Packs or Mat <u>4</u> <u>4</u> Aquatic Vegetation <u>6.5</u> <u>4</u> Rock or Shell Rubble.. <u> </u> <u> </u> Sand..... <u>52</u> <u>3</u> Mud / Muck / Silt <u> </u> <u> </u> Other <u>pipe clay</u> <u>1</u> Other <u> </u> <u> </u>			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>22.4</u> <u>5.28</u> <u>8.44</u> <u>96.7</u> <u>12.2</u> <u>9.00</u> <u> </u> Mid: <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> Bottom: <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> Meter ID: <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> <u> </u> TOTAL DEPTH <u>0.8</u>					
ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☒ ☐ ☐ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☒ ☐ Iron/Sulfur Bacteria: ☐ ☒ ☐ ☐			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) ☐			Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐		
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>M. KING S. SLADE M. CLARK</u>			SIGNATURE <u>[Signature]</u>			DATE: <u>5/28/19</u>		

BF
SLOPE
VEG

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

Left
Bank



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

S 11
R 1
LP 0.5

Location: Little Rocky Esplanade

Date: 5/28/19

Sampler: Mike King / S. Slade / M. Clapp

S 12
R 3
LP 0.5

100 m: Latitude 30.59083
Longitude 86.41315
0 m: Latitude 30.59021
Longitude 86.41290

S 12
R 3
LP 0.5

Substrates: Code key, draw proportionate habitat abundance.

PC 9

	Snags	94	31
	Roots/undercut banks	19	6.3
	Leaf Packs (or mats)	11	3.8
	Aquatic Macrophytes	10.5	6.5
	gravel		
	pipe clay		
	Pools	total # observed = 11 # range expected =	

S 14
R 3
LP 2

Average width 3 m
Average depth 0.5 m

AM 1

Velocity measured at 90 meter mark.

S 10

WQ & chemistry taken at 0 meter mark.

R 1

Habitat Smothering:
Note areas (on map) where sand or silt is smothering substrates, limiting habitability.

LP 3

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

AM 6

Riparian Buffer Width:
Note areas (on map) where natural vegetation is altered or eliminated.

S 5

Plants observed / other notes:

R 1

LP 0.5

AM 12

S 16

R 1

LP 0.5

AM 15

PC 5

S 7

R 5

LP 1

S 7

R 1

LP 1

R. maple
pinus
red titi
American Honey
xyris
sundew
botodendron
panicum sp
vitis
tulip poplar
wolly witch grass
rubus
Hypericum

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

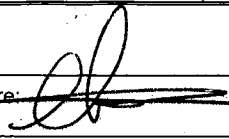
G3NW0103

SAMPLING AGENCY: FDEP NW ROC		STORET STATION NUMBER: G3NW0104 cab	DATE (MM/DD/YY): 05/28/2019	RECEIVING BODY OF WATER: ROCKY CREEK
REMARKS:	COUNTY: OKALOOSA	LOCATION: LITTLE ROCKY CREEK	FIELD ID/NAME: G3NW0104	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components Substrate Diversity <u>18</u>	Four or more major productive habitats present [snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock] 20 19 <u>18</u> 17 16	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags) 15 14 13 12 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>19</u>	Greater than 30% major productive habitat present at site 20 <u>19</u> 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>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>75</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 Artificial Channelization <u>19</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 <u>19</u> 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>9</u> Left Bank <u>9</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. 10 <u>9</u>	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>77</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

152

TOTAL SCORE

Date: <u>5/29/19</u>	Analyst: <u>MIKE KING</u>	Signature: 
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DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>LITTLE ROCKY CREEK</u>					County: <u>OKALOOSA</u>		Date: <u>5/28/2019</u>		Investigators: <u>NEING/SISLADE / M CLARKE</u>		
Transect (m)					Transect (m)					STORET Station Number: <u>G3NW0103</u> cab	
Point 1=right 9=left					Point 1=right 9=left					G3NW0103	
Algal Thickness Rank (N-6, X)					Algal Thickness Rank (N-6, X)						
Estimated					Estimated						
Canopy Cover					Canopy Cover						
0					60					Secchi depth <u>0.8</u>	
1					1					Estimated? ☒	
2					2					# points ranked 4-6 <u>0</u>	
3					3					total points assessed <u>99</u>	
4					4					% points ranked 4-6 <u>0</u>	
5					5					Check accompanying data collected at same site/date.	
6					6					Algal mat sample ☐	
7					7					Linear Veg Survey ☒	
8					8					Habitat Assessment ☒	
9					9					SOI/Biorecon ☐	
10					70					Water sample ☒	
1					1					RQ- 2019-04-08-31	
2					2						
3					3						
4					4						
5					5						
6					6						
7					7						
8					8						
9					9						
20					80						
1					1						
2					2						
3					3						
4					4						
5					5						
6					6						
7					7						
8					8						
9					9						
30					90						
1					1						
2					2						
3					3						
4					4						
5					5						
6					6						
7					7						
8					8						
9					9						
40					100						
1					1						
2					2						
3					3						
4					4						
5					5						
6					6						
7					7						
8					8						
9					9						
50											
1					1						
2					2						
3					3						
4					4						
5					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%.

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

Waterbody: <u>LITTLE ROCKY CREEK</u>	Date: <u>5/28/19</u>	County: <u>OKALOSHO</u>	Storet Number: <u>G73NW0104</u>
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County: OKLAHOMA

Waterbody: <u>LITTLE ROCKY CREEK</u>	Date: <u>5/28/19</u>	County: <u>OKALOOSA</u>	Storet Number: <u>G73NW0104</u>
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Analyst: MIKE KING Signature: 

Analyst: MIKE KING Signature: 

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.

[illegible]