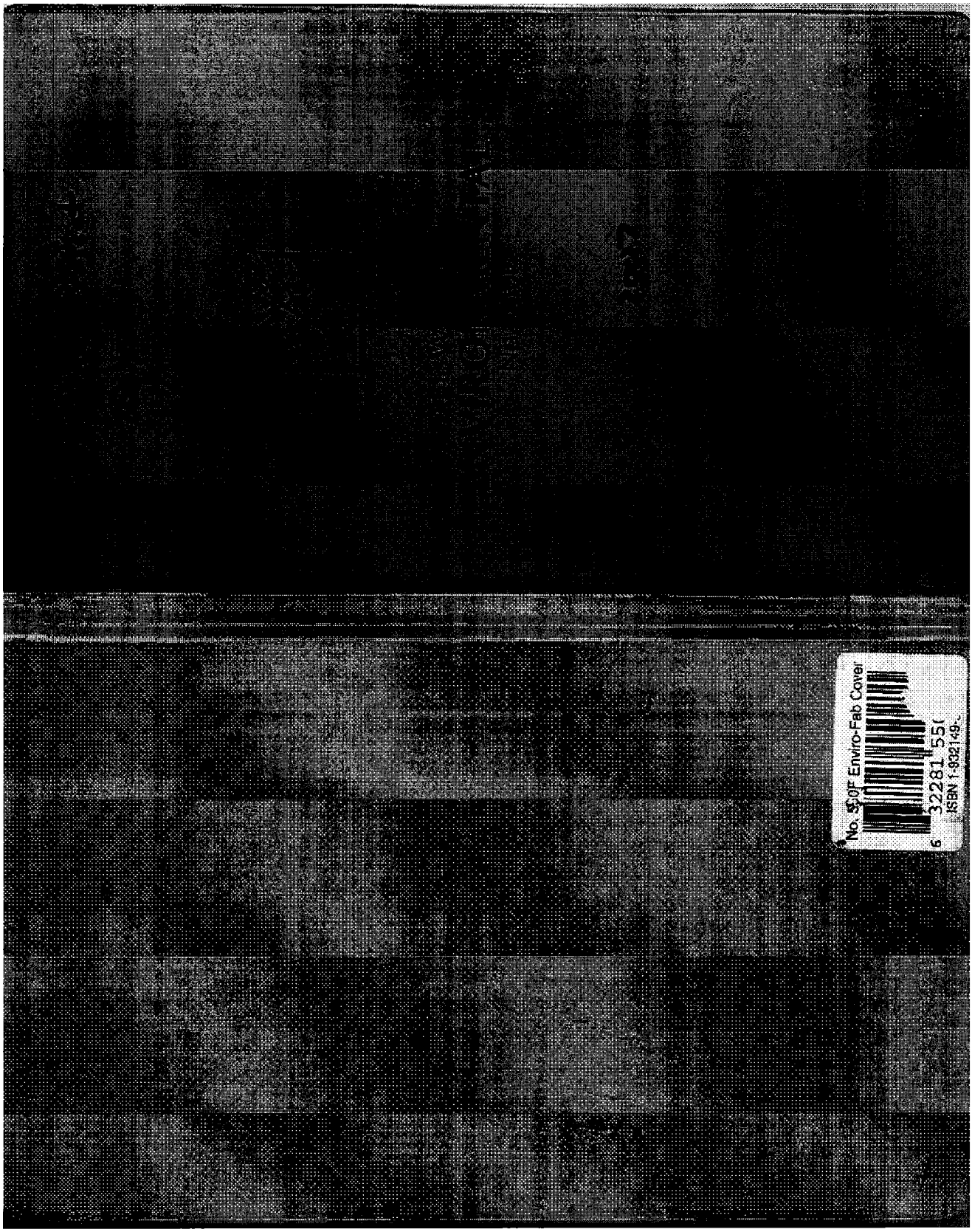
EXHIBIT A-6



BrownCORR0008589.0001

"Rite in the Rain"®
ALL-WEATHER WRITING PAPER

ALL-WEATHER
ENVIRONMENTAL FIELD BOOK

Name CDM

Address 100 North Tucker Blvd Suite 550
Saint Louis, MO 63101

Phone 314-241-8510

Project Illinois River Watershed Project 2007

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

Page Pattern		Cover Options	
Left Page	Right Page	Polydura Cover	Fibreboard Cover
Columnar	1/4" Grid	Item No. 350	Item No. 350F

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2

Location IRW Date May 15, 2007

Project / Client Fish Shocking

May 15, 2007

RS-578 Renee Mulcrone, Josh Johnston

Gary Peterson - FISH SHOCKING

GPS reading: N 35.89265° W 094.95640°

Accuracy: 9 feet, weather: partly cloudy.

~~85~~ 70 degrees Flow 185° Arrived 9:00 hrs

started shocking 0924.

1st pass time: 1029 Seconds

Banded Sculpin - IIII No Lesions observed

Smallmouth bass - I

Longear sunfish - III

Orange throat darters - ~~IIII~~ ~~IIII~~ IIII

Stonecroller - IIII

Slender Madtom - IIII IIII

Cardinal shiner - II (collected)

Transferred to data sheet

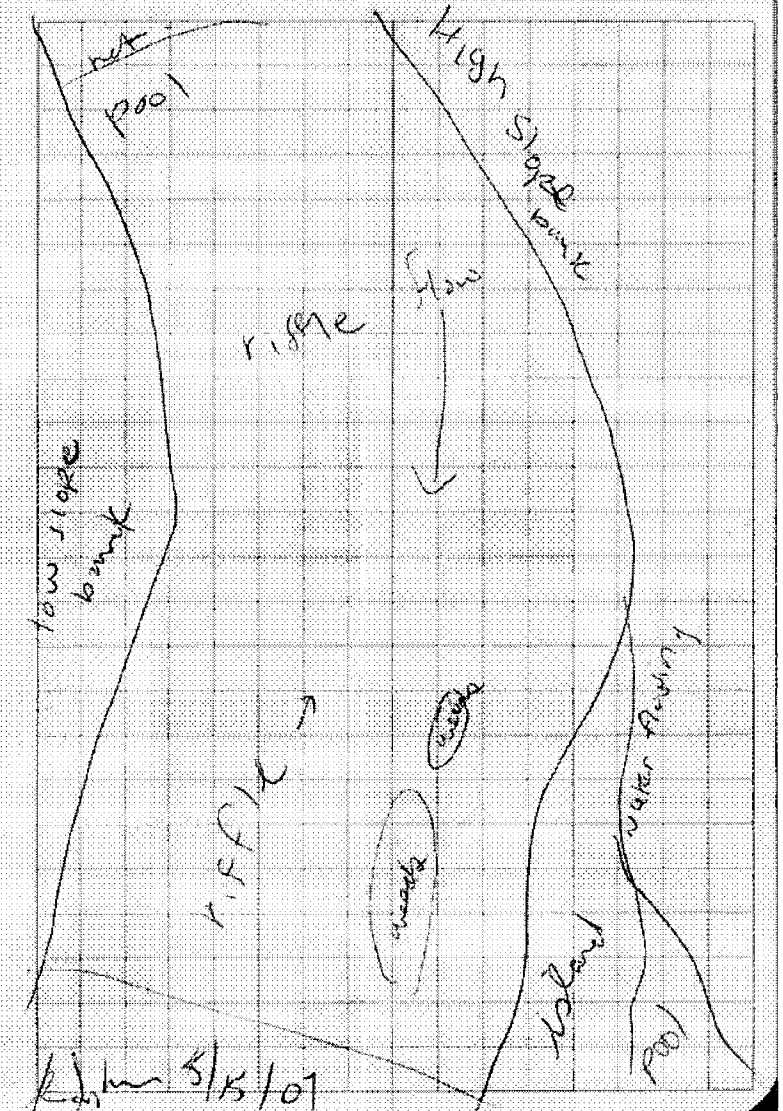
Left site @ 11:26 am

[signature] 5/15/07

3

Location IRW Date May 15, 2007

Project / Client Fish Shocking



[signature] 5/15/07

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4

Location IRW Date May 15, 2007

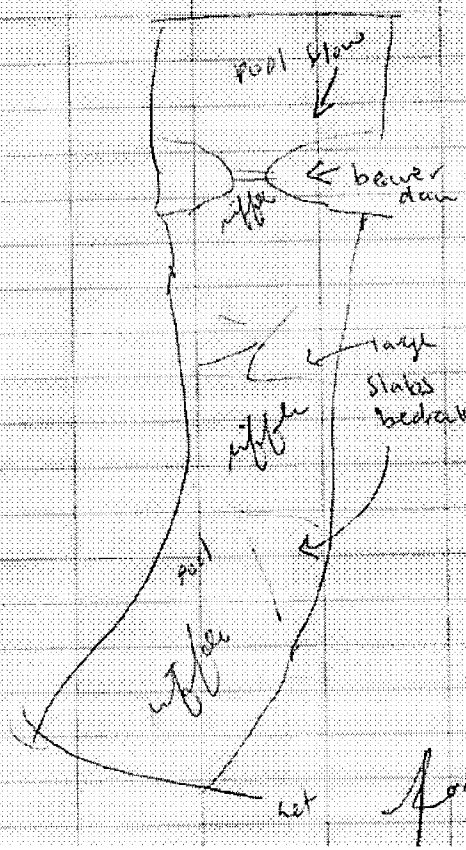
Project / Client Fish Shocking

RS-518 Accy 17 ft N 35.85489° W 94.96121°

flow direction: 165° Arrived @ 11:45 am

Left site @ 3:30 pm. Light rain at end of 1st pass, storm moved through, no rain during 2nd pass

Rocks were very slippery



5/15/07

5

Location IRW Date May 15, 2007

Project / Client FISH SHOCKING

May 16, 2007 RS-657

N 35.84421 RSW

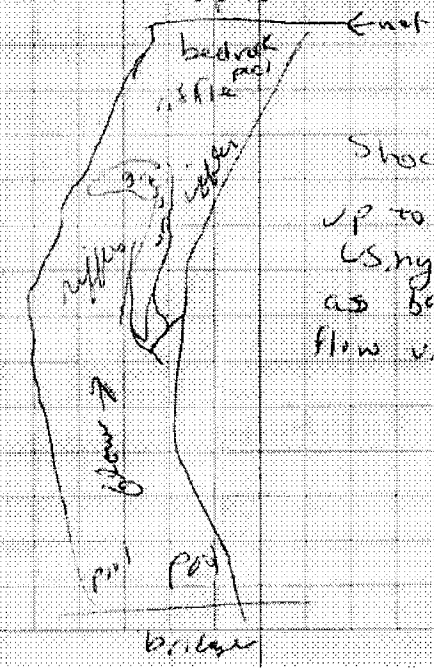
W 94.62917 Accy 8 ft / 310° [illegible] flow

Arrival time: 9:15, Peterson chicken farm truck passed by. Truck # 304 or 34. Talked to land owner's brother before shocking.

1st pass Shock time: 2133

2nd pass Shock time: 1468

Left site at 1:15 pm



Shocked up to bridge, using bridge as barrier (no flow under).

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6

Location IRW Date May 16, 2007

Project / Client FISH SHOCKING

RS-693 pre-visit Good access; water looks a little high; rain likely in the area yesterday. Water slightly cloudy. Time: 2:30 pm

RS-697 - Checked in with Luke, adjacent landowner. He said ok to shock. Water cloudy; two ditches full and running. Time: 2:15 pm.

RS-793 - 4:09 Tried to contact landowner. South of site (house is south of site. No one home. Time: 4:00 pm.

4:09 pm Tried to contact landowner north of site (across the tracks) no one home.

Location HF-04 Date July 23 '07

Project / Client OK AG

(START LATE JULY '07 FISH SAMPLING - RIVER)

1500 -
Measure MSW, 4 locations, 2 riffles and 2 pools - MSW = 30, 20, 20, 15
4/85 221' = 3x21 = 630 m TZ
7m x 30 = 210 m. Reach marked @ 100 m and 210 m. (min: max)
Photo S909 - DS end of reach, look US
S910 - " " , look DS
S911 - US " , " DS
S912 - US " , " DS
DS = N36.20141, W94.60507
US = N36.20015, W94.60381
Accuracy = 16'

1700 - Done w/ station TZ
(Note: station had riparian habitat, with approx. equal dist. of riffles, runs, and pools. Well shaded w/ abundant riparian vegetation) TZ

BrownCORR0008589.0005

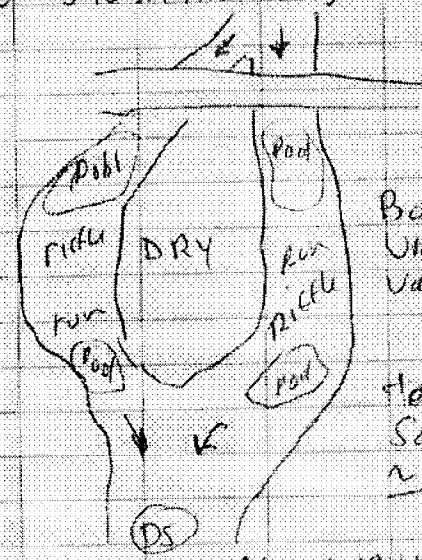
8

Location RS-421 Date 7-23-07

Project / Client OK AG

1820 Start - 2:30 finish

Reach = DS of bridge. Channel braided. Channel width before braiding ~13m x 30 = 390 m max length.



Both channels used to ensure variety of habitats

Total length sampled = ~155 m

US Boundary = N 36.19411
W 94.70681

photos 5913 - US boundary looking US
5914 - " " " DS
15 - DS " " US
16 - " " DS

DS Boundary - N 36.19299
W 94.70647

9

Location RS-421 (cont) Date 7/23/07

Project / Client OK AG

- Tried 2 reps of kick seine, 30 sec ea, and collected only (1) orange-fin darter. Repeat sampling of same riffle w/ backpack electroshock much more successful - large number of multiple species collected in same riffle using backpack electroshock method.
- Habitat very diverse. Approx. equal distribution of runs and riffles, with pools interspersed. Est. 40% riffles, 40% run, 20% pool.
- Note that definitions of riffles, run, pools are not always distinct - runs and pools are at times difficult to define because of relatively flat slope.
- 1830 - Finished completing station, sampled 3 runs, 3 riffles, 3 pools within 155m (max was 390m, not sampled to max). TC

BrownCORR0008589.0006

10

Location RS-793 Date 7/24/07

Project / Client OK AG

Arrive Site 0920 - Narrow (2 m)
x 30 = 60 m → default to 100 m.
Few pools, mostly run/small riffle.
Shock entire 100 m.
photo 5917 - DS end looking US
" 18 " " DS
" 19 US " US
" 20 " " DS
Mostly under canopy. Well shaded
cobble bottom. Some larger boulders
DS - N 35.95703
W 94.57567
US - N 35.95764
W 94.57513 error 16'
No algae, clear.
1020 - Finished site

TG

11

Location RS-682 Date 7/24/07

Project / Client OK AG

Arrive site 12:50 - GPS not accurate
as it shows RS-682 in AR, two mi
east. New reading, at point
shown on aerial photo
US = N - 35.90892 } accuracy 11'
W - 94.56242
MSW = 20 m x 30 = 600 m. Measured
area sampled that includes 3/3/3
is 360 m = sampled reach
Photos - US looking US - 5921
US " DS - 5922
DS " US - 5925
DS " DS - 5926
DS - N - 35.90907 (accuracy 14')
W - 94.56544
- Wide, very lg. riffle - electroshocking
not successful, as stonerollers evade
zone of influence. Many fish seen but
few shocked.
- Battery problems, plus flat tire
in State truck - delays. Finished
site @ 1530 TG

BrownCORR0008589.0007

12

Location RS-696 Date 9-24-07

Project / Client Ok Ag

1600 - Checked out RS-693, too lg for remaining battery power

1630 - Arrived RS 696. DS of Bridge on Highway 100 = site. Measured stream width (~2-2.5 m, $\bar{x}$) and determined reach to be 100 m (MIN). While measuring 100 m length, noted the following:

1) very turbid water
2) very deep, to waist in many places
3) too deep to safely electroshock using backpack unit
4) in deeper areas backpack unit under water
5) some "holes" even deeper, w/ very uneven bottom substrate

Determined to consider NOT retaining this (at this time) site for river fish sampling. To be determined. Boat access very difficult also. Will evaluate options.

1745 - Finished for the day

TG

13

Location Ri-1003 Little Lee Date 7/25/07

Project / Client

0940 - Arrive, Collected WQ samples

pH — 7.41
Cond — 183 uS
Temp — 24.2
DO — 8.39

Mean Stream Width = 29' or ~10 m

40'
23'
25'
29'
117

4)117 = 29 ≅ 9.5 m, rounded to 10 m

153 m + 175 m

total = 328 m

Photo = 5926 = DS end, looking US
" 27 = " " DS
* ~~26~~ 5935 - US, " US
~~27~~ 5936 - US, " DS

DS - N 35.65538 W 94.62106 > accuracy 16'

US - N 35.65431 W 94.61806 > accuracy 13'

*(Photos 5925-5934 = cottonmouth)

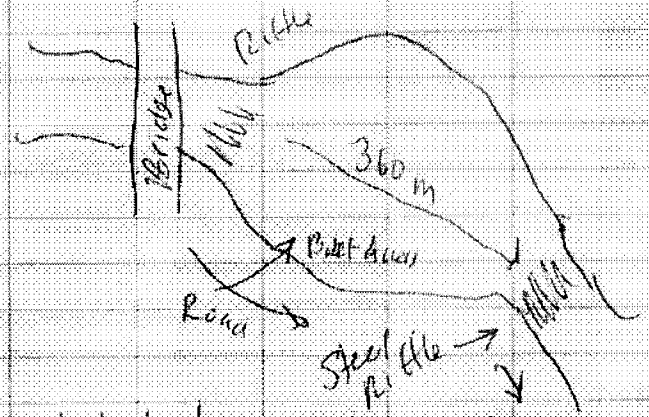
Done w/ site 12:15 TG

12 14

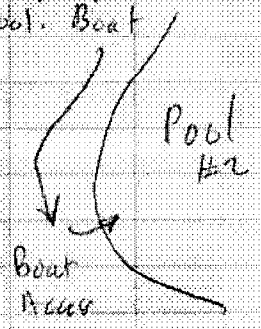
Location RS-1004 Date 7/25/07

Project / Client (Little Lee) OK AG

- 1300 Arrive site. (Boat site).
Electroshock unit not functioning.
Site unique, blocked by rills
where boat cannot go



while boat repairs being made —
Collected WQ samples / data.
Scoped US, 2nd pool. Boat
access ok.

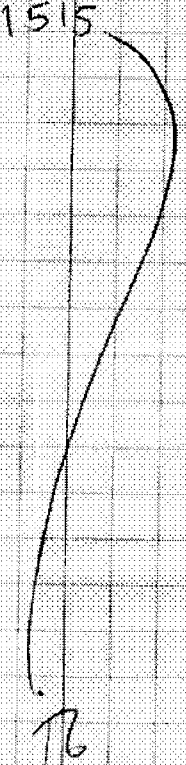


pH - 6.99
T - 27.7
DO - 8.01
Cond - 132.5 uS

Location RS-1004 (cont.) Date 7/25/07 15

Project / Client

photos 5937 - 5941 Little Lee,
Boat site, Electroshock (attempt)
US & Dr - all Pool #1
Cannot repair electroshock
unit - loaded boat out left
site @ 1515



12

16

Location RS-693 Date 7/25/07

Project / Client Evansville Cr

1630 - Arrival Site, MSW = 7m
max = 210m. Actual sampled =
240 m. (to complete pool)
N 35.81217 > DS Accuracy =
W 94.55260 19'

- Photos
5942 - DS boundary, looking DS
" 43 " " " US
44 US " " US
45 " " " DS

Insufficient habitat diversity for 3/3/3. Completed all available of each w/ 240m (over max, = 210m).
One small riffle was included initially but accident caused loss of fish in net. Very small riffle - data eliminated.
1815 - Done

DS = N 35.81068
W 94.55192

12

Location RS-654 Date 7/26/07 17

Project / Client Illinois River

- 0810 - On site RS-654 Illinois River
- Attempting first boat site with 2 crews: Bennett/Wunsenhunt, Gerdusa/Jones crews
Upstream Coordinate = (35.92309, -94.92363)
Downstream Coordinate = ~~94.92363~~ (35.91742, -94.92363)
Photos 5946-47-48 = US end of reach (Boat site)
- 0830 - Finished measuring out 300 meters for stream station length. River is really much uniform habitat, no riffles in reach, 3-4 feet deep throughout with some shallows, snags, etc.
0960 - Begin electrofishing - 2 ODWC in shock boat Tony Gerdusa + 2 ODWC in support boat to ID and record fish collected. Begin working upstream along left bank. Decided to use 5min increments to be consistent with ODWC protocols.
0930 - Sample time RS-654-072607-01
1x 500ml TKN, 1x500ml Nitrate + Nitrite + Chloride
1x 125ml P, 2-40ml TOC, 1x 250ml chlorophyll
0935 - Sample time RS-654-072607-03 - split/duplicate sample completed with -01 and shipped/labeled.
- Note: Danielle Jordan (CDA) met up with
1000 parameters

18

Location RS-654 Date 07/26/07

Project / Client Illinois River

RS-433a

pH 7.94
Cond 245 MS
DO 7.2107 ppm
Temp 26.3 °C
Turbidity 15.9 NTU

1115 - End Electrofishing - continue fish ID
1130 - Finished with site, load vehicles
1140 - off site RS-654 - Break for Lunch.
1245 - On site RS-433a → Illinois River @ Pecuine Hollow
Crew: Bennett + ODWC, Gendusa + ODWC, Danielle Jordan
Site more of a long shallow glide, small pseudo riffle with some pools along banks.
1255 - Begin measuring out site = 800m
Upstream Coordinate: (36.06617, -94.88257) 30'
Downstream Coordinate = (36.06130, -94.88413) 36'
(1300) - Sample time RS-433a ~~072507~~ 072507 1x500ml TKN
1x500ml Nitrate, Nitrite, Chloride, 1x RSmt P, 1x250ml chlorophyll, 2x40ml VOA for TOC.
1325 parameters
pH 8.03
Cond 251 MS
DO 9.143 ppm
Temp 27.7 °C
Turbidity 7.16 NTU

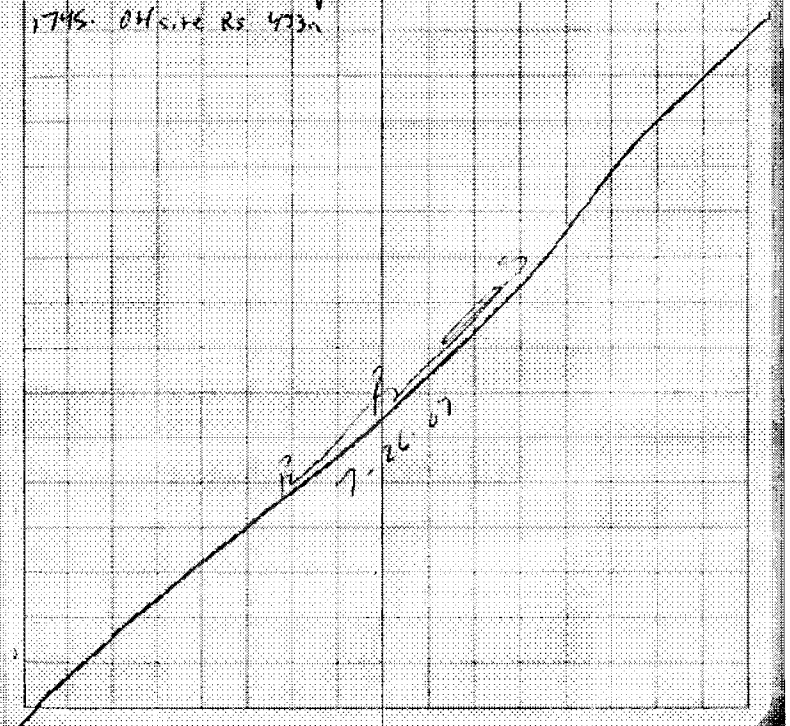
19

Location ~~RS-654~~ IRW Date 7/26/07

Project / Client ~~RS-65~~ RS-433a

- Note: Large numbers of recreational floaters through site. May have to stop shocking frequently to let boaters pass.
- Electrofished 800m along both banks, skipped approx 100m near midpoint due to swimmers. No backpack used, no kick seines due to lack of riffles in reach.

1730 - Finished sampling - begin loading equipment
1745 - Off site RS 433a



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20

Location IRW Date 7/27/07

Project / Client Oklahoma Fish Sampling 2

RS-649

0800 - On site RS-649

Crew: Bennett, Gendusa, Mulcrane, Jordan + 2 ODWC crews

Weather: Sunny 85°F

0810 - Begin measuring out stream reach. 800m

Upstream coordinate: (35.87015, -94.89696) 56'

Downstream coordinate: 35.86476, -94.89871) 33'

- Mix of riffles, runs, pools. Will have to use backpack shocker in riffles and boat along pools, runs.

0900 - Begin electrofishing

1115 - End electrofishing.

- Two backpacked riffles, approx 600m of boat shocking along banks.

- Note WQ, water samples collected at 1000 by Danielle Jordan, Brian Bennett - see Jordan's field book for additional info.

- Photos in Gendusa camera -

1200 - Finished sampling, loaded vehicles,

1210 - offsite RS-649

1345 - On site RS-10004 - Little Lee Creek

Same crew as above. Weather: Sunny 90°F

- Site will be combination of boat shocking in pools/runs and backpack in riffle.

21

Location IRW Date 7/27/07

Project / Client Oklahoma Fish Sampling 2

RS-10004

1405 - Begin measuring out sampling reach

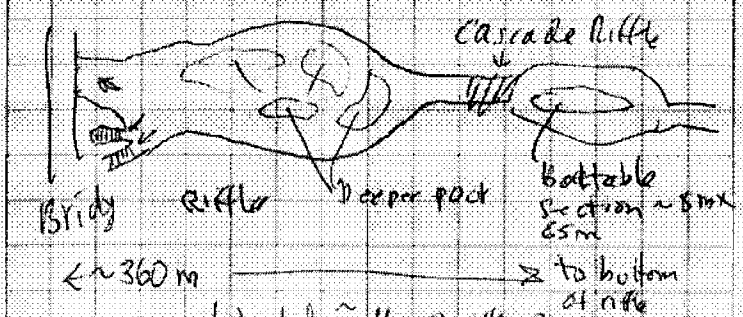
Downstream point - (35.63212, -94.58026) 36'

Upstream point - (35.63130, -94.58555) 23'

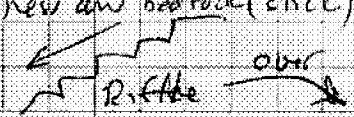
1430 - Begin Backpack electrofishing of lower riffle

Note: WQ and water samples collected by Danielle Jordan @ 1430 — see her field book for additional information → 2nd grab sample at RS-10004 this week.

→ Site mostly 1 lg pool, with shallow (unboatable) and deeper areas.



MSW, estimated, ≅ 4m @ riffle, 30 @ pool. ≅ $\bar{x}$ = 17m × 30 = 540m max, But, much of site not deep enough for boat. Riffle unsafe to sample by backpack (US riffle) due to steepness and bedrock (slick)



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22

Location PS 1004 (Cont) Date 7/27/07

Project / Client

- Boatable section of reach, sampled, is about 300 m. Riffle sections total about 40 m. Entire riffles (lower, not cascade) and both banks of main pool (deeper sections) sampled by boat. 6 reps of pool, 3 reps of riffles, and 1 rep of run sampled (riffles + run by packpack).
- Pool above cascade riffle has small amount of boatable pool, ~ 6-10 m w x 65 m L. Bedrock substrate, no in-pool structure. Difficult (but possible) boat access to upper small pool. Chose not to sample pool due to size (small), and limited structure. Addition 65' length of reach inadequate given the limitations.
- Finished site @ ~ 1730.

TG

23

Location Fly Creek - BS-35 Date 7/28/07

Project / Client IRW - Fish Sampling - AR

July 28, 2007 Don Jordan, Brian Bennett, Tony Gonzales, Renee Mulcrone

Two pools measured = 15 m & 13 m. Av. = 14 m ; measured ~~420~~ 270 m

3 + 7 + 13 + 15 = 38 4 | 37 / 36

3 m Riffle & 7 m riffle.

38/4 = 9 m x 30 = 270 m total.

Arrived at site about 9:30 am

Sunny, humid, about 90°

PICS: Tony's Camera 5972 — 100 - end of pics Camera full

DS point: N 35.87253°N

94.45682°W

Cond = 283 Temp = 26.0 pH 7.90

DO = 5.906 turbidity = 4.66 ntu

Several adult orangethroat darters had trematodes or metacodes - black spots. Left site about 11:45 am

BS-HR22

Arrived at 12:30 pm

Partly cloudy, hot ~ 90°

riffles = 1 m, 3 m 4 | 17 x 9 4 x 30 = 120

pools - 8 m 5 m

N 35.91669 W 94.43507

24

Location IRW Date 7-28-07

Project / Client Fish Sampling 2 - AK

Pics - 88, 89, 90 on Brian's Camera
Pics point = N-75 41 511°
W-94 43 522°
Area 23 ft

pH = 9.08 DO = 7.302
cond = 314 Temp = 23.7
Turbidity = 11.7
off-site @ 2:55 pm

7/28/07

25

Location IRW Date 7-29-07

Project / Client Fish Sampling 2 - AR

1000 - On site RS-297 - Site is too big for backpack electrofishing, will have to select an alternative site.
1030 - On site RS-160 to conduct fish sampling
Crew: Bennett, Mulcrone, Gendusa, Jordan
Weather: Sunny 85°F
1035 - Begin measuring site: 7.5m avg width
Max length = 225m
Upstream Point = (36.26124, -94.42485)
Downstream Point = (36.26181, -94.42707)
1100 sample time RS-160-072907
1-500ml Nitrate/Nitrite/Chloride, 1-500ml TKN, 1-250ml Chlorophyll a, 1-125ml P, 2-TOC
1115 parameters
pH 7.67
Cond 236 µS
DO 7.043 ppm
Temp 19.4 °C
Turbidity 3.52 NTU
1340 offsite at RS-160.

7-29-07

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26

Location IRW Date 7-29-02

Project / Client Fish Sampling #2

RS-392

arrived 15:15 shocked ~~125~~ 150 m

c/s points N 36.02361 W 94.47235 } 34 ft away

u/s points

pH = ~~7.97~~ 7.99 temp = 29.6 cond = .287

DO = 7.798

Turbidity = 7.55

1530 Sample time RS-392-072907

1-500ml Nitrite/Nitrate/Chloride, 1-500ml TKN

1-250 ml Chlorophyll a, 1-125ml P, 2-TOC

1715 offsite at RS-392

Location Date

Project / Client

BrownCORR0008589.0015