APPENDIX J

Fish Data and Habitat Scores

Procedure for calculating the Icthyofauna Habitat Index (IHI).

Fish habitat evaluations were performed at all sites and were comprised of five parameters each consisting of three to seven variables. These parameters included: 1) habitat type; 2) habitat quantity; 3) quantity of substrate type based on fish use; 4) quantity of in stream cover; and 5) sediment on substrate. Each parameter for substrate type and in stream cover was given a score depending on its abundance. The scores given to the substrate parameters were multiplied by a factor to adjust these scores based on how they relate to fish habitat quality. Habitat type length, depth, and width measurements were estimated for each habitat type and recorded in feet. The sediment on substrate parameter was scored according to the degree of embededness.

A total score for each habitat type was calculated by summing the scores for the substrate type, in stream cover and sediment on substrate. The scores from like habitat types were averaged for each sampling station. The lengths of each habitat type were also summed. The total habitat type lengths were then divided by 100 and multiplied by the average habitat type score. This score is the Ichthyofauna Habitat Index (IHI).

ADEQ, 2001. Physical, chemical and biological assessment of the Bayou Bartholomew watershed. Arkansas Department of Environmental Quality. WQ-01-04-01.

Common Name	Species	Family
Allegator Gar		
Banded Pygmy Sunfish	*Elassoma zonatum*	Elassomatidae
Bantam Sunfish	*Lepomis symmetricus*	Centrarchidae
Black Bullhead	*Ictalurus melas*	Ictaluridae
Black Crappie	*Pomoxis nigromaculatus*	Centrarchidae
Blue Catfish	*Ictalurus furcatus*	Ictaluridae
Bluegill	*Lepomis macrochirus*	Centrarchidae
Bluehead Shiner	*Notropis hubbsi*	Cyprinidae
Bowfin	*Amia calva*	Amiidae
Chain Pickerel	*Esox niger*	Esocidae
Common Carp	*Cyprinus carpio*	Cyprinidae
Dollar Sunfish	*Lepomis marginatus*	Centrarchidae
Flier	*Centrarchus macropterus*	Centrarchidae
Gizzard Shad	*Dorosoma cepedianum*	Clupeidae
Golden Topminnow	*Fundulus chrysotus*	Fundulidae
Grass Pickerel	*Esox americanus*	Esocidae
Longear Sunfish	*Lepomis megalotis*	Centrarchidae
Mississippi Silvery Minnow	*Hybognathus nuchalis*	Cyprinidae
Mosquito Fish	*Gambusia affinis*	Poeciliidae
Pirate Perch	*Aphredoderus sayanus*	Aphredoderidae
Pugnose Minnow	*Notropis emiliae*	Cyprinidae
Shortnose Gar	*Lepisosteus platostomus*	Lepisosteidae
Slough Darter	*Etheostoma gracile*	Percidae
Spotted Gar	*Lepisosteus oculatus*	Lepisosteidae
Swamp Darter	*Etheostoma fusiforme*	Percidae
Warmouth	*Lepomis gulosus*	Centrarchidae
White Crappie	*Pomoxis annularis*	Centrarchidae
Yellow Bullhead	*Ictalurus natalis*	Ictaluridae

Fish Codes

Family	Common Name	Abbr.
Lampreys	Chestnut Lamprey	CHLP
Paddlefishes	Paddlefish	PDLF
Gars	Spotted Gar	SPGR
	Longnose Gar	LNGR
	Shortnose Gar	SNGR
	Alligator Gar	ALGR
Bowfin	Bowfin	BWFN
Freshwater Eels	American Eel	AMEL
Herrings	Skipjack Herring	SJHG
	Gizzard Shad	~~GZSD~~ GZDS
	Threadfin Shad	THSD
Mooneyes	Goldeye	GDEY
	Mooneye	MOEY
Pikes	Grass Pickerel	GSPK
	Chain Pickerel	CHPK
Sunfishes	Flier	FLIR
	Green Sunfish	GRSF
	Warmouth	WRMT
	Orangespsotted Sunfish	OSSF
	Bluegill	BLGL
	Dollar Sunfish	DLSF
	Longear Sunfish	LESF
	Redear Sunfish	RESF
	Redspotted Sunfish	RSSF
	Bantam Sunfish	BTSF
	Spotted Bass	SPBS
	Largemouth Bass	LMBS
	White Crappie	WHCR
	Black Crappie	BLCR
Pygmy Sunfishes	Banded Pygmy Sunfish	BPSF
Minnows/Carps	Grass Carp	GRCR
	Blacktail Shiner	BTSH
	Steelcolor Shiner	SCSH
	Common Carp	~~CNCP~~ CARP
	Cypress Minnow	CYMN
	Mississippi Silvery Minnow	MSMN
	Striped Shiner	STSH
	Ribbon Shiner	RBSH
	Redfin Shiner	RFSH
	Speckled Chub	SPCH

Family	Common Name	Abbr.
	Silver Chub	SVCH
	Golden Shiner	GDSH
	Pallid Shiner	PDSH
	Emerald Shiner	EMSH
	Bigeye Shiner	BESH
	Ghost Shiner	GHSH
	Ironcolor Shiner	ICSH
	Bluehead Shiner	BHSH
	Red Shiner	RDSH
	Taillight Shiner	TLSH
	Weed Shiner	WDSH
	Mimic Shiner	MMSH
	Pugnose Minnow	PNMN
	Fathead Minnow	FHMN
	Bluntnose Minnow	BNMN
	Slim Minnow	SLMN
	Bullhead Minnow	BHMN
	Creek Chub	CKCH
Suckers	River Carpsucker	RVCS
	Quillback	QLBK
	Highfin Carpsucker	HFCS
	Blue Sucker	BLUS
	Creek Chubsucker	CKCS
	Lake Chubsucker	LKCS
	Smallmouth Buffalo	SMBF
	Bigmouth Buffalo	BMBF
	Black Buffalo	BLBF
	Spotted Sucker	~~SPTS~~ SPSU
	River Redhorse	RVRH
	Golden Redhorse	GDRH
	Blacktail Redhorse	BTRH
Drums	Freshwater Drum	FWDM
Perches	Western Sand Darter	WSDD
	Scaly Sand Darter	SCSD
	Crystal Darter	CRYD
	Mud Darter	MUDD
	Bluntnose Darter	BLND
	Swamp Darter	SWPD
	Slough Darter	SLOD
	Harlequin Darter	HRLD

Family	Common Name	Abbr.
	Goldstripe Darter	GDSD
	Cypress Darter	CYPD
	Speckled Darter	SPCD
	Redfin Darter	RDFD
	Log Perch	LOGP
	Blackside Darter	BLSD
	Johnny Darter	JNYD
	Dusky Darter	DSKD
	River Darter	RIVD
	Stargazing Darter	SGZD
	Saddleback Darter	SDBD
	Walleye	WLEY
Bullhead Catfishes	Black Bullhead	BLBH
	Yellow Bullhead	YLBH
	Brown Bullhead	BRBH
	Blue Catfish	BLCF
	Channel Catfish	CHCF
	Tadpole Madtom	TPMT
	Freckled Madtom	FRMT
	Flathead Catfish	FLCF
Pirate Perches	Pirate Perch	PIRP
Killifishes	Blair's Starhead Topminnow	BSTM
	Northern Studfish	NSTF
	Golden Topminnow	GDTM
	N. Starhead Topminnow	NSTM
	Blackstripe Topminnow	BSTT
	Blackspotted Topminnow	BSPT
Livebearers	Mosquitofish	MOSF
Silversides	Brook Silverside	BRSS
	Inland Silverside	ILSS
Temperate Basses	White Bass	WHBS
	Yellow Bass	YLBS

Biological and Habitat Sampling Coffee Creek
06-21-05 to 06-22-05

06-21-05

We met with Allan Thomas at GP mill at 8:00am to get everyone safety trained, and then proceeded to the downstream Coffee Creek (CC DN) site.

The conductivity of the water was approximately 2500 µS, which is too high to use a backpack shocker. Seining of fish was ineffective due to woody debris in the channel so hoop nets were deployed around 11:00am. Six nets were deployed with the first three blocking the entire channel. The following three were placed in the thalweg upstream. DO at the site was 1.25 mg/L. pH was 7.8. Temperature was 26.5 C.

Benthic macroinvertebrates were collected along approximately 300 ft of the stream. Visual estimation of the community shows a high dominance by bloodworms and a type of water beetle.

In the afternoon we sampled the upstream Coffee Creek site (CC UP). Conductivity at this site was 380 µS, which allowed for us to sample with the backpack shocker. DO was read by the handheld meter as 10.3 mg/L, pH was 8.01, and temperature was 27.3 C. The stream was in divided standing pools only. Benthic organisms were sampled after backpack shocking had been completed and time had been allowed for the pools to settle. The habitat assessment was conducted after benthics were collected. A number of species of concern were collected in the fish shocking. From a visual estimation the benthic community was fairly diverse with sensitive individuals such as water scorpions present.

We retained possession of the benthic samples for picking before identification by Bill Layher.

06-22-05

The hoop nets which had been deployed the day before were retrieved from CC DN. The habitat assessment was conducted at this time. One interesting species was collected, a young alligator gar.

EVENT 1

JUNE 21-22 and AUGUST 10-11, 2005

Fish Identification and Summary Table for Event 1 (6/21/05 - 6/22/05 and 8/10/05 - 8/11/05)

Common Name	Scientific Name	Reference Site		Coffee Creek		Mossy Lake		Coffee Creek below Mossy Lake	
		Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Alligator Gar[3]	*Lepisosteus spatula*	0	0%	0	0%	0	0%	1	3%
Banded Pygmy Sunfish[2]	*Elassoma zonatum*	1	0%	0	0%	0	0%	0	0%
Bantam Sunfish	*Lepomis symmetricus*	14	5%	0	0%	0	0%	0	0%
Black Bullhead	*Ameiurus melas*	2	1%	0	0%	0	0%	0	0%
Blue Catfish	*Ictalurus furcatus*	0	0%	0	0%	0	0%	14	40%
Bluegill	*Lepomis macrochirus*	3	1%	0	0%	0	0%	0	0%
Bluehead Shiner[3]	*Notropis hubbis*	4	1%	0	0%	0	0%	0	0%
Bowfin	*Amia calva*	0	0%	0	0%	0	0%	1	3%
Flier	*Centrarchus macropterus*	3	1%	0	0%	0	0%	0	0%
Gizzard Shad	*Dorosoma cepedianum*	1	0%	0	0%	0	0%	0	0%
Golden Topminnow	*Fundulus chrysotus*	13	4%	0	0%	0	0%	0	0%
Grass Pickerel[1]	*Esox americanus*	25	8%	0	0%	0	0%	0	0%
Longear Sunfish[1]	*Lepomis megalotis*	4	1%	0	0%	0	0%	0	0%
Mississippi Silvery Minnow	*Hybognathus nuchalis*	16	5%	0	0%	0	0%	0	0%
Mosquitofish	*Gambusia affinis*	202	67%	0	0%	0	0%	6	17%
Pirate Perch[2]	*Aphredoderus sayanus*	2	1%	0	0%	0	0%	0	0%
Shortnose Gar	*Lepisosteus platostomus*	0	0%	0	0%	0	0%	9	26%
Slough Darter	*Etheostoma gracile*	3	1%	0	0%	0	0%	0	0%
Spotted Gar	*Lepisosteus oculatus*	0	0%	1	100%	5	100%	4	11%
Warmouth	*Lepomis gulosus*	8	3%	0	0%	0	0%	0	0%
Total Number Identified		301		1		5		35	
Total Taxa		15		1		1		6	

[1]Key Species (from ADEQ's 2004 Regulation 2.302(3)(e))

[2]Indicator Species (from ADEQ's 2004 Regulation 2.302(3)(e))

[3]Species of Concern (from Arkansas Game and Fish Commission)

End 26.141

upstream site

Fish Sample Field Data Sheet

Date (ddmmmyy) 06-21-05 Method Backpack Electrofishing Run — Hancock Sheet 1 of 3 Fish Doublesided

Lat./Long. _____ Stream _____ I.D. Layher Netters Bainkman, Kotti, mayer

Length (m) _____ Width (m) U _____ M _____ L _____ Shock Time(sec) _____ Net Hours _____

	Species	Total Length (mm)	Weight (g)	Health
1	GSPK	114mm	8g	
2	GSPK	132 mm	17g	
3	GSPK	142 mm	20g	
4	GSPK	123mm	8g	
5	MSNW	83	6	
6	MSNW	82	4	
7	MSNW	79	4	
8	GSPK	105	8	
9	MSNW	81	4	
10	WRMT	78	8	
	GSPK	161	~~28~~	
12	GSPK	122	12	
13	MOSF	27	~~<1~~ <1	
14	BLBH	268	254	
15	LESF	98	20	
16	GSPK	128	14	
17	GSPK	100	5	
18	LESF	47	2	
19	MSNW	86	8	
20	MSNW	90	8	
21	GSPK	136	16	
22	GSPK	128	14	
23	WRMT	98	20	
24	BLGL	62	8	
25	GSPK	177	40	

	Species	Total Length (mm)	Weight (g)	Health
26	GSPK	126	14	
27	MSNW	91	8	
28	MOSF	13	<1	
29	MOSF	26	<1	
30	MOSF	31	<1	
31	MOSF	33	<1	
32	MSNW	81	8	
33	GSPK	124	12	
34	GSPK	129	14	
35	BLGL	92	18	
36	GSPK	134	14	
37	MOSF	37	<1	
38	MOSF	31	<1	
39	MOSF	31	<1	
40	MOSF	31	<1	
41	MOSF	23	<1	
42	MOSF	36	<1	
43	MOSF	26	<1	
44	MOSF	31	<1	
45	MOSF	19	<1	
46	MOSF	16	<1	
47	MOSF	17	<1	
48	MOSF	26	<1	
49	MOSF	27	<1	
50	MOSF	34	<1	

Reference Site (RS)

	Species	Total Length (mm)	Weight (g)	Health
51	MOS	43	<1	
52	BTSF	59	5	
53	BTSF	69	6	
54	BTSF	73	8	
55	BTSF	67	10	
56	BTSF	68	8	
57	BTSF	60	6	
58	BTSF	56	4	
59	BTSF	53	5	
60	BTSF	66	8	
61	BLGL	82	10	
62	FLIR	44	42	
63	BTSF	47	3	
64	MOSF	46	1	
65	MOSF	48	1	
66	GDTM	57	2	
67	GDTM	67	3	
68	GDTM	68	4	
69	MOSF	44	<1	
70	MOSF	31	<1	
71	MOSF	29	<1	
72	MOSF	27	<1	
73	MOSF	23	<1	
74	MOSF	22	<1	
75	MOSF	24	<1	

	Species	Total Length (mm)	Weight (g)	Health
76	MOSF	22	<1	
77	MOSF	21	<1	
78	MOSF	27	<1	
79	MOSF	21	<1	
80	MOSF	19	<1	
81	MOSF	20	<1	
82	MOSF	16	<1	
83	PIRP	35	1	
84	MOSF	28	<1	
85	MOSF	26	<1	
86	MOSF	24	<1	
87	MOSF	18	<1	
88	MOSF	17	<1	
89	MOSF	14	<1	
90	MOSF	21	<1	
91	MOSF	21	<1	
92	MOSF	~~41~~ 44	<1	
93	MOSF	~~14~~ 21	<1	
94	MOSF	16	<1	
95	BTSF	61	6	
96	WRMT	47	5	
97	MSMN	80	6	
98	MSMN	84	8	
99	MSMN	82	6	
100	MSMN	86	8	

Fish Sample Field Data Sheet

Date (ddmmmyy)_____ Method _____ Run____ Sheet 2 of 3
Lat./Long._____ Stream_____ I.D. _____ Netters_____
Length (m) _____ Width (m) U _____ M _____ L _____ Shock Time(sec) _____ Net Hours_____

	Species	Total Length (mm)	Weight (g)	Health
	MSMN	80	4	
	FLTR	57	2	
	SLOD	32	1	
	MOSF	19	<1	
	MOSF	19	<1	
	MOSF	19	<1	
	MOSF	36	<1	
	MOSF	22	<1	
	MOSF	22	<1	
	MOSF	26	<1	
	MOSF	17	<1	
	MOSF	24	<1	
		31	<1	
		17	<1	
		22	<1	
		21	<1	
		27	<1	
		26	<1	
		21	<1	
20		28	<1	
		21	<1	
		17	<1	
		19	<1	
		26	<1	
		14	<1	

	Species	Total Length (mm)	Weight (g)	Health
	MOSF	17	<1	
		19	<1	
		18	<1	
		17	<1	
		19	<1	
		28	<1	
		31	<1	
		36	<1	
		27		
		27	<1	
		30	<1	
		32	<1	
		21	<1	
		47	2	
		27	<1	
		27	<1	
		21	<1	
		22	<1	
		26	<1	
		27	<1	
		36	<1	
		32	<1	
		36	<1	
		32	<1	
		24	<1	

R 5
3

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	Species	Total Length (mm)	Weight (g)	Health
	MOSF	24	<1	
	GDTM	62	3	
	MOSF	17	<1	
		20	<1	
		34	<1	
		23	<1	
		17	<1	
		21	<1	
		25	<1	
		17	<1	
		16	<1	
		25	<1	
		23	<1	
		17	<1	
		32	<1	
		17	<1	
		21	<1	
		20	<1	
		15	<1	
		26	<1	
	GDTM	62	4	
	GZDS	161	42	
	FLTR	45	2	
	SLOD	32	1	
	MSMN	66	6	

	Species	Total Length (mm)	Weight (g)	Health
	BLBH	216	122	
	WRMT	90	12	
	BTSF	66	8	
	GDTM	57	2	
	GSPK	151	28	
	LESF	71	8	
	GSPK	83	5	
	MOSF	42	<1	
		27	<1	
		17	<1	
		31	<1	
		21	<1	
		27	<1	
		16	<1	
		21	<1	
		21	<1	
		18	<1	
		21	<1	
		21	<1	
		26	<1	
		21	<1	
		22	<1	
		21	<1	
		22	<1	
		21	<1	

3A

Fish Sample Field Data Sheet

Date (ddmmmyy)_____ Method _____ Run____ Sheet 3 of 3
Lat./Long._____ Stream_____ I.D. _____ Netters_____
Length (m) _____ Width (m) U _____ M_____ L_____ Shock Time(sec) _____ Net Hours_____

	Species	Total Length (mm)	Weight (g)	Health
1	MOSF	16	<1	
2	BHSH	52	2	
3	BHSH	56	2	
4	BHSH	60	2	
5	BHSH	58	2	
6	GSPK	122	12	
7	GSPK	112	12	
8	BTSF	66	10	
9	GSPK	102	6	
10	BTSF	56	4	
11	GSPK	106	5	
12	GDTM	61	2	
13	MSMW	88	6	
14	MOSF	23	<1	
15	BPSF	21	<1	
16	MOSF	43	<1	
17	↓	26	<1	
18	↓	46	2	
19	FLRP	82	8	
20	MSMW	80	6	
21	GDTM	62	2	
22	GDTM	54	2	
23	GDTM	52	2	
24	GDTM	60	2	
25	IOSF	31	<1	

	Species	Total Length (mm)	Weight (g)	Health
26	MOSF	25	<1	
27	↓	40	<1	
28	↓	23	<1	
29	↓	22	<1	
30	↓	21	<1	
31	↓	15	<1	
32	↓	13	<1	
33	↓	15	<1	
34	↓	22	<1	
35	↓	23	<1	
36	↓	16	<1	
37	↓	21	<1	
38	↓	21	<1	
39	↓	21	<1	
40	↓	19	<1	
41	↓	28	<1	
42	↓	22	<1	
43	GSPK	140	18	
44	WRMT	96	14	
45	GDTM	62	2	
46	MOSF	21	<1	
47	↓	20	<1	
48	↓	21	<1	
49	↓	26	<1	
50	↓	24	<1	

* Caught in benthic net

RS
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	Species	Total Length (mm)	Weight (g)	Health
	MOSF	29	<1	
		22	<1	
		22	<1	
		22		
		21	<1	
		29	<1	
		21	<1	
		19	<1	
		19	<1	
		17	<1	
		18	<1	
		27	<1	
		23	<1	
		16	<1	
		23	<1	
		14	<1	
		21	<1	
		20	<1	
		19	<1	
		12	<1	
		17	<1	
		14	<1	
		21	<1	
	GSPK	157	24	
	LESF	87	14	

	Species	Total Length (mm)	Weight (g)	Health
	MOSF	38	<1	
		31	<1	
		17	<1	
		12	<1	
		23	<1	
		20	<1	
		20	<1	
		23	<1	
		22	<1	
		23	<1	
	GSPK	102	8	
	SLOD	35	1	
	MOSF	24	<1	
		20	<1	
		21	<1	
		23	<1	
		17	<1	
	WRMT	~~90~~ 91	10	
	WRMT	92	12	
	GDTM	55	2	
	MOSF	31	<1	
	MOSF	21	<1	
	MOSF	17	<1	
	WRMT	95	14	
100	MOSF	21	<1	
	MOSF	31	<1	

RS

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Fish Habitat Summary Report Reference Site - June 21, 2005							
Habitat Type	**Habitat Number**	**Length (ft.)**	**Substrate Score**	**Instream Habitat Score**	**Embeddedness**	**Habitat Score**	**IHI**
Pool	1	103	1.5	16	0	17.5	
	2	44	1.5	17	0	18.5	
	3	30	1.5	15	0	16.5	
	4	75	1.5	10	0	11.5	
	5	103	1.5	15	0	16.5	
	Sum/Avg	355	1.5	14.6	0	16.1	57.2

INSTREAM & RIPARIAN HABITAT

STATION NO.: _____ DATE: 06-21-05

Sample Location: Cossee Cr. UP (Reference Site)

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Habitat Sequence:

1st	Pool	5th	Pool
2nd	Pool	6th	
3rd	Pool	7th	
4th	Pool	8th	

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1st Habitat X Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type (score)				Instream Cover	
Length	103	Bedrock	0	X 0.1		Woody Debris	13
Channel Width	21	Lg Boulder	0	X 1.0		Undercut Banks	0
Stream Width	10.5	Boulder	0	X 1.0		Aquatic Veg	0
Avg. Depth	20 cm	Rubble	0	X 1.0		Hanging Veg	1
Max. Depth	52 cm	Gravel	0	X 0.5		Root Wads	1
		Sand	0	X 0.1		Leafy Debris	1
		Mud/Silt	15	X 0.1	1.5		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: Dry spot between pools 21ft

TOTAL SCORE: _____

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2nd Habitat X Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type (score)				Instream Cover	
Length	44	Bedrock	0	X 0.1		Woody Debris	15
Channel Width	24	Lg Boulder	0	X 1.0		Undercut Banks	0
Stream Width	5	Boulder	0	X 1.0		Aquatic Veg	0
Avg. Depth	10 cm	Rubble	0	X 1.0		Hanging Veg	0
Max. Depth	15 cm	Gravel	0	X 0.5		Root Wads	1
		Sand	0	X 0.1		Leafy Debris	1
		Mud/Silt	15	X 0.1	1.5		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: 10ft

TOTAL SCORE: _____

3rd Habitat X Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type (score)		Instream Cover	
Length	30ft	Bedrock	0 X 0.1	Woody Debris	12
Channel Width	30ft	Lg Boulder	0 X 1.0	Undercut Banks	0
Stream Width	14ft	Boulder	6 X 1.0	Aquatic Veg	0
Avg. Depth	10 cm	Rubble	0 X 1.0	Hanging Veg	1
Max. Depth	15 cm	Gravel	0 X 0.5	Root Wads	1
		Sand	0 X 0.1	Leafy Debris	1
		Mud/Silt	19 X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: 17ft

TOTAL SCORE: ____

++

4th Habitat X Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type (score)		Instream Cover	
Length	75	Bedrock	0 X 0.1	Woody Debris	9
Channel Width	22	Lg Boulder	0 X 1.0	Undercut Banks	0
Stream Width	8	Boulder	0 X 1.0	Aquatic Veg	0
Avg. Depth	15 cm	Rubble	0 X 1.0	Hanging Veg	0
Max. Depth	30 cm	Gravel	0 X 0.5	Root Wads	0
		Sand	0 X 0.1	Leafy Debris	1
		Mud/Silt	19 X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: 17ft

TOTAL SCORE: ____

++

5th Habitat X Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type (score)		Instream Cover	
Length	103	Bedrock	0 X 0.1	Woody Debris	10
Channel Width	22	Lg Boulder	0 X 1.0	Undercut Banks	0
Stream Width	135	Boulder	0 X 1.0	Aquatic Veg	0
Avg. Depth	40 cm	Rubble	0 X 1.0	Hanging Veg	0
Max. Depth	50 cm	Gravel	0 X 0.5	Root Wads	4
		Sand	0 X 0.1	Leafy Debris	1
		Mud/Silt	15 X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: ____

TOTAL SCORE: ____

RIVER DATA SHEET

Stream Coffey Creek County Pope State Arkansas

Site _____ Date 08/10/05-08/11/05 Set No. _____

Lat - Long N 33.05788 W 092.05499 GPS Coord. _____ Set Time 6:00 pm 7:30 a.m

Gear Type Hoop Nets (2) Habitat Type _____ Current moderate

Depth _____ (ft) Total Hours Set _____ Total Net Nights 2

Fish Species	Length (mm)	Weight (gm)	Check Time
spotted gar	568	520	

Sampling Codes

Gear
- Hoop Nets = 1
- Gill Nets = 2
- Trotlines = 3
- Drift Nets = 4

Habitat Types
- Sloping Sandbar = 1
- Behind Sandbar = 2
- Vertical Banks = 3
- Eddy = 4
- Open Stream = 5
- Sloping Bottom, No Sandbar = 6
- Wiers, jetties = 7

Current
- None = 1
- Light = 2
- Moderate = 3
- High = 4

RIVER DATA SHEET

Stream Coffey Creek County Izlley State AR

Site: Date 08/11/05 Set No.

Lat - Long GPS Coord. N 33.0578 W 092.05499 Set Time 7:30-8:00a.m.

Gear Type seine hauls Habitat Type run Current moderate

Depth (ft) Total Hours Set Total Net Nights

Fish Species	Length (mm)	Weight (gm)	Check Time
12 hauls width of stream semicircle to bank - Kickedage			
no fish in any hauls			

Sampling Codes

Gear
Hoop Nets = 1
Gill Nets = 2
Trotlines = 3
Drift Nets = 4

Habitat Types
Sloping Sandbar = 1
Behind Sandbar = 2
Vertical Banks = 3
Eddy = 4
Open Stream = 5
Sloping Bottom, No Sandbar = 6
Wiers, jetties = 7

Current
None = 1
Light = 2
Moderate = 3
High = 4

Fish Habitat Summary Report Coffee Creek - August 11, 2005							
Habitat Type	Habitat Number	Length (ft.)	Substrate Score	Instream Habitat Score	Embeddedness	Habitat Score	IHI
Run	1	213.3	1.5	44	0	45.5	
	Sum/Avg	213.3	1.5	44	0	45.5	97.1

INSTREAM & RIPARIAN HABITAT

TATION NO.: Coffee Cr DN DATE: 08-11-05

ample Location:

++

abitat Sequence: 1st Run 5th
2nd 6th
3rd 7th
4th 8th

++

st Habitat ____ Pool ____ Riffle X Run

easurements ~~(feet)~~		Substrate Type (score)				Instream Cover	
ength	~~50~~ 65 meters	Bedrock	X 0.1			Woody Debris	6
hannel Width	14 ft	Lg Boulder	X 1.0			Undercut Banks	15
tream Width	14 ft	Boulder	X 1.0			Aquatic Veg	3
vg. Depth	0.6 meters	Rubble	X 1.0			Hanging Veg	13
ax. Depth	1.2 meters	Gravel	X 0.5			Root Wads	2
		Sand	X 0.1			Leafy Debris	5
		Mud/Silt	15 X 0.1	1.5			

core: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

edimentation on Substrate: ~~15~~ 0 EC
core: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

otes:

TOTAL SCORE:

++

nd Habitat ____ Pool ____ Riffle ____ Run

easurements (feet)		Substrate Type (score)				Instream Cover	
ength		Bedrock	X 0.1			Woody Debris	
hannel Width		Lg Boulder	X 1.0			Undercut Banks	
tream Width		Boulder	X 1.0			Aquatic Veg	
vg. Depth		Rubble	X 1.0			Hanging Veg	
ax. Depth		Gravel	X 0.5			Root Wads	
		Sand	X 0.1			Leafy Debris	
		Mud/Silt	X 0.1				

core: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

edimentation on Substrate:
core: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

otes:

TOTAL SCORE:

RIVER DATA SHEET

Stream Mossy Lake | County Ashley | State AR

Site | Date 8/10/05 | Set No.

Lat - Long | GPS Coord. N 33.03727 W092.06306 | Set Time 8/10/05 9:00am 8/11/05 11:25 a.m.

Gear Type | Habitat Type | Current

Depth (ft) | Total Hours Set | Total Net Nights

Fish Species	Length (mm)	Weight (gm)	Check Time
100 yd exp. gill net	no captures		
Eyke Net stations			
Spotted Gar	535	~~590~~ 680	
Spotted Gar	561	590	
Spotted Gar	594	775	
Spotted Gar (alive)	512	520	
Spotted Gar	563	635	
red ear slider			
" mud turtle			

Sampling Codes

Gear
Hoop Nets = 1
Gill Nets = 2
Trotlines = 3
Drift Nets = 4

Habitat Types
Sloping Sandbar = 1
Behind Sandbar = 2
Vertical Banks = 3
Eddy = 4
Open Stream = 5
Sloping Bottom, No Sandbar = 6
Wiers, jetties = 7

Current
None = 1
Light = 2
Moderate = 3
High = 4

Mossy Lake (ML)

1

CCBML

Fish Sample Field Data Sheet

50 - [illegible]

Date (ddmmmyy) 06/21/05 Method Semi - Haul 1 Run ____ Sheet ____ of ____
Lat./Long. ____ Stream ____ I.D. ____ Netters [illegible]
Length (m) ____ Width (m) U ____ M ____ L ____ Shock Time(sec) ____ Net Hours ____

	Species	Total Length (mm)	Weight (g)	Health
1	Gambusia	33		
2	" "	18		
3		23		
4	Gambusia	3 more less than 20		
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

	Species	Total Length (mm)	Weight (g)	Health
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				

CCBML

Fish Sample Field Data Sheet

ID, weight and measure - Layher

Date (ddmmmyy) 06/21/05 Method Smith Hall Z Run ____ Sheet ____ of ____

Lat./Long. ____ Stream ____ I.D. ____ Netters Brinkman, Hardcastle, Kilpinger

Length (m) ____ Width (m) U ____ M ____ L ____ Shock Time(sec) ____ Net Hours ____

	Species	Total Length (mm)	Weight (g)	Health
1		spotted gar		
2	spotted gar	610	166	
3	" "	411	110	
4	Shortnose gar	608	272	
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

	Species	Total Length (mm)	Weight (g)	Health
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				

CCBML

I.D., weigh & measure - W. Layher

Fish Sample Field Data Sheet

~~Net sheet of 3~~

Date (ddmmmyy) 6/21-22/05 Method Hoop Nets Run Net 1-6 Sheet ___ of ___
Lat./Long. ___ Stream ___ I.D. ___ Netters E. Eitman, Hardnock, Kitty, mg
Length (m) ___ Width (m) U ___ M ___ L ___ Shock Time(sec) ___ Net Hours 22

	Species	Total Length (mm)	Weight (g)	Health
1	BLCF	485	1,180	
2	BLCF	670	2,940	
3	BLCF	612	2,180	
4	BLCF	472	952	
5	SPGR	607	744	
6	BWFN	658	2,820	
7	SNGR	565	692	
8	SNGR	602	642	
9	SPGR	647	1,242	
10	BLCF	526	1,480	
11	SNGR	565	592	
12	ALGR	562	582	
13	SNGR	532	478	
14	BLCF	732	3,700	
15	BLCF	528	1,740	
16	SNGR	614	910	
17	BLCF	592	1,420	
18	BLCF	507	1,200	
19	BLCF	551	1,880	
20	BLCF	527	1,480	
21	BLCF	538	1,480	
22	BLCF	572	1,880	
23	BLCF	568	1,660	
24	SNGR	594	780	
25	SNGR	600	602	

NET 4

	Species	Total Length (mm)	Weight (g)	Health
26	SNGR	551	538	
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				

Net 2 - Soft Shell turtle
· measurements undetermined

Layout of nets

Fish Habitat Summary Report Coffee Creek below Mossy Lake - June 22, 2005							
Habitat Type	**Habitat Number**	**Length (ft.)**	**Substrate Score**	**Instream Habitat Score**	**Embeddedness**	**Habitat Score**	**IHI**
Run	1	329	1.2	35	0	36.2	
	2						
	3						
	Sum/Avg	329	1.2	35	0	36.2	119.1
Pool	1	209	1.3	29	0	30.3	
	2						
	Sum/Avg	209	1.3	29	0	30.3	63.3

INSTREAM & RIPARIAN HABITAT

STATION NO.: CCBML DATE: 06/22/05

Sample Location: CCBML

++

Habitat Sequence:

1st	Run	5th	
2nd	Pool	6th	
3rd		7th	
4th		8th	

++

1st Habitat ____ Pool ____ Riffle X Run

Measurements (feet)		Substrate Type (score)				Instream Cover	
Length	91+238=329	Bedrock	0	X 0.1		Woody Debris	15
Channel Width	60	Lg Boulder	0	X 1.0		Undercut Banks	10
Stream Width	23	Boulder	0	X 1.0		Aquatic Veg	0
Avg. Depth	60 cm	Rubble	0	X 1.0		Hanging Veg	0
Max. Depth	110 cm	Gravel	0	X 0.5		Root Wads	5
		Sand	0	X 0.1		Leafy Debris	5
		Mud/Silt	12	X 0.1	1.2		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes:

TOTAL SCORE:

++

2nd Habitat X Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type (score)				Instream Cover	
Length	209	Bedrock	0	X 0.1		Woody Debris	13
Channel Width	68	Lg Boulder	0	X 1.0		Undercut Banks	5
Stream Width	24	Boulder	0	X 1.0		Aquatic Veg	0
Avg. Depth	100cm	Rubble	0	X 1.0		Hanging Veg	0
Max. Depth	200+cm	Gravel	0	X 0.5		Root Wads	8
		Sand	0	X 0.1		Leafy Debris	3
		Mud/Silt	13	X 0.1	1.3		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes:

TOTAL SCORE: —

EVENT 2

February 7, 2006

Fish Identification and Summary Table for Event 2 (2/08/06)

Common Name	Scientific Name	Reference Site		Coffee Creek		Mossy Lake		Coffee Creek below	
		Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Black Crappie	*Pomoxis nigromaculatus*	0	0%	0	0%	0	0%	4	12%
Blue Catfish	*Ictalurus furcatus*	0	0%	0	0%	0	0%	9	27%
Bluegill	*Lepomis macrochirus*	0	0%	1	13%	1	20%	0	0%
Bowfin	*Amia calva*	0	0%	0	0%	0	0%	4	12%
Dollar Sunfish	*Lepomis marginatus*	0	0%	0	0%	1	20%	0	0%
Flier	*Centrarchus macropterus*	0	0%	0	0%	0	0%	1	3%
Gizzard Shad	*Dorosoma cepedianum*	0	0%	0	0%	0	0%	5	15%
Mississippi Silvery Minnow	*Hybognathus nuchalis*	0	0%	0	0%	0	0%	2	6%
Mosquitofish	*Gambusia affinis*	2	100%	6	75%	1	20%	0	0%
Slough Darter	*Etheostoma gracile*	0	0%	0	0%	0	0%	1	3%
Swamp Darter	*Etheostoma fusiforme*	0	0%	0	0%	1	20%	0	0%
Warmouth	*Lepomis gulosus*	0	0%	0	0%	1	20%	0	0%
White Crappie	*Pomoxis annularis*	0	0%	0	0%	0	0%	7	21%
Yellow Bullhead	*Ameiurus natalis*	0	0%	1	13%	0	0%	0	0%
Total Number Identified		2		8		5		33	
Total Taxa		1		3		5		8	

[1]Key Species (from ADEQ's 2004 Regulation 2.302(3)(e))

[2]Indicator Species (from ADEQ's 2004 Regulation 2.302(3)(e))

[3]Species of Concern (from Arkansas Game and Fish Commission)

Fish Sample Field Data Sheet

Date (ddmmmyy) 02/08/06 **Method** EF - Seine **Run** ____ **Sheet** 1 **of** 1
Lat./Long. N 33.09411 W092.0887 **Stream** Reference Site **I.D.** Layton **Netters** Eric C, T.A.J Handlock
Length (m) ____ **Width (m) U** ____ **M** ____ **L** ____ **Shock Time(sec)** ____ **Net Hours** ____

	Species	Total Length (mm)	Weight (g)	Health		Species	Total Length (mm)	Weight (g)	Health
1	Gambusia	38 —	EF		26				
2	Gambusia	42 —	4 seine hauls		27				
3					28				
4					29				
5					30				
6					31				
7					32				
8					33				
9					34				
10					35				
					36				
12					37				
13					38				
14					39				
15					40				
16					41				
17					42				
18					43				
19					44				
20					45				
21					46				
22					47				
23					48				
24					49				
25					50				

R 5

Fish Habitat Summary Report Reference Site - February 7, 2006							
Habitat Type	Habitat Number	Length (ft.)	Substrate Score	Instream Habitat Score	Embeddedness	Habitat Score	IHI
Pool	1	72.2	1.3	43	3	47.3	
	2	49.2	1.4	46	3	50.4	
	3	65.6	1.3	38	3	42.3	
	Sum/Avg	187	1.3	42	3	46.7	87.27
Run	1	32.8	1.3	31	3	35.3	
	2	16.4	1.1	41	3	45.1	
	Sum/Avg	49.2	1.2	36	3	40.2	19.78

INSTREAM & RIPARIAN HABITAT

STATION NO.: Reference Site DATE: 02-07-2006

Sample Location: _____

++

Habitat Sequence:

1st	Pool	5th	Pool
2nd	Run	6th	
3rd	Pool	7th	
4th	Run	8th	

++

1st Habitat X Pool ____ Riffle ____ Run

Measurements (~~feet~~) M+cm		Substrate Type (score)			Instream Cover	
Length	14×2+2+7+2=22	Bedrock	X 0.1		Woody Debris	12
Channel Width	7	Lg Boulder	X 1.0		Undercut Banks	2
Stream Width	4.5	Boulder	X 1.0		Aquatic Veg	
Avg. Depth	60	Rubble	X 1.0		Hanging Veg	
Max. Depth	70	Gravel	X 0.5		Root Wads	
		Sand	X 0.1		Leafy Debris	1.5
		Mud/Silt	13 X 0.1	1.3		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 3

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

++

2nd Habitat ____ Pool ____ Riffle X Run

Measurements (~~feet~~) M+cm		Substrate Type (score)			Instream Cover	
Length	10	Bedrock	X 0.1		Woody Debris	11
Channel Width	12	Lg Boulder	X 1.0		Undercut Banks	0
Stream Width	5	Boulder	X 1.0		Aquatic Veg	5
Avg. Depth	45	Rubble	X 1.0		Hanging Veg	3
Max. Depth	70	Gravel	X 0.5		Root Wads	5
		Sand	X 0.1		Leafy Debris	6
		Mud/Silt	13 X 0.1	1.3		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 3

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

3rd Habitat X Pool ____ Riffle ____ Run

Measurements (~~feet~~) m+cm		Substrate Type	(score)		Instream Cover	
Length	15	Bedrock	X 0.1		Woody Debris	12
Channel Width	8	Lg Boulder	X 1.0		Undercut Banks	5
Stream Width	4.5	Boulder	X 1.0		Aquatic Veg	3
Avg. Depth	60	Rubble	X 1.0		Hanging Veg	4
Max. Depth	70	Gravel	X 0.5		Root Wads	10
		Sand	X 0.1		Leafy Debris	12
		Mud/Silt	14 X 0.1	1.4		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 3
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: ____

TOTAL SCORE: ____

++

4th Habitat ____ Pool ____ Riffle X Run

Measurements (~~feet~~) m+cm		Substrate Type	(score)		Instream Cover	
Length	5	Bedrock	X 0.1		Woody Debris	15
Channel Width	5	Lg Boulder	X 1.0		Undercut Banks	0
Stream Width	82	Boulder	X 1.0		Aquatic Veg	3
Avg. Depth	40	Rubble	X 1.0		Hanging Veg	2
Max. Depth	50	Gravel	X 0.5		Root Wads	8
		Sand	X 0.1		Leafy Debris	12
		Mud/Silt	11 X 0.1	1.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 2
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: ____

TOTAL SCORE: ____

++

5th Habitat X Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type	(score)		Instream Cover	
Length	20m	Bedrock	X 0.1		Woody Debris	8
Channel Width	12	Lg Boulder	X 1.0		Undercut Banks	2
Stream Width	8	Boulder	X 1.0		Aquatic Veg	10
Avg. Depth	60	Rubble	X 1.0		Hanging Veg	5
Max. Depth	80	Gravel	X 0.5		Root Wads	3
		Sand	X 0.1		Leafy Debris	10
		Mud/Silt	12 X 0.1			

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 3
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: ____

TOTAL SCORE: ____

Fish Sample Field Data Sheet

Date (ddmmmyy) 02/10/06 Method HW & Fyke Net Run ____ Sheet 1 of 1
Lat./Long. N33.05737 W092.05508 Stream Coffey Creek I.D. Lowland Netters Hazelbeck
Length (m) ____ Width (m) U ____ M 9 L ____ Shock Time(sec) ____ Net Hours ____

	Species	Total Length (mm)	Weight (g)	Health		Species	Total Length (mm)	Weight (g)	Health
1	Hoop Net 1 - No Fish				26				
2	Yellow Bullhead in HW2 - Length	291			27				
3	F1				28				
4	Gambusia	26			29				
5	BG	46			30				
6					31				
7	Fyke net 2				32				
8	Gambusia	44			33				
9	" "	42			34				
10	" "	36			35				
	" "	29			36				
12	" "	26			37				
13					38				
14					39				
15					40				
16					41				
17					42				
18					43				
19					44				
20					45				
21					46				
22					47				
23					48				
24					49				
25					50				

HW1 HW2 F1 F2

CC
4

Fish Habitat Summary Report Coffee Creek - February 7, 2006							
Habitat Type	**Habitat Number**	**Length (ft.)**	**Substrate Score**	**Instream Habitat Score**	**Embeddedness**	**Habitat Score**	**IHI**
Run	1	198.1	1.5	46	0	47.5	
	Sum/Avg	198.1	1.5	46	0	47.5	94.1

INSTREAM & RIPARIAN HABITAT

STATION NO.: Coffee Creek DATE: 2/7/06

Sample Location: _____

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Habitat Sequence:

1st	Run	5th	
2nd		6th	
3rd		7th	
4th		8th	

++

1st Habitat ____ Pool ____ Riffle X Run

Measurements (~~feet~~ M)		Substrate Type (score)				Instream Cover	
Length	15 + 12 m + 33.4	Bedrock	X 0.1			Woody Debris	10
Channel Width	4.6m	Lg Boulder	X 1.0			Undercut Banks	13
Stream Width	4.6m	Boulder	X 1.0			Aquatic Veg	5
Avg. Depth	60cm	Rubble	X 1.0			Hanging Veg	5
Max. Depth (cm)	120 cm	Gravel	X 0.5			Root Wads	5
		Sand	X 0.1			Leafy Debris	8
		Mud/Silt	15	X 0.1	1.5		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

++

2nd Habitat ____ Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type (score)				Instream Cover	
Length		Bedrock	X 0.1			Woody Debris	
Channel Width		Lg Boulder	X 1.0			Undercut Banks	
Stream Width		Boulder	X 1.0			Aquatic Veg	
Avg. Depth		Rubble	X 1.0			Hanging Veg	
Max. Depth		Gravel	X 0.5			Root Wads	
		Sand	X 0.1			Leafy Debris	
		Mud/Silt	X 0.1				

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: _____

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

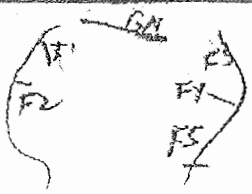
TOTAL SCORE: _____

Fish Sample Field Data Sheet

Date (ddmmmyy) 2/08/06 Method Gill Net + Fyke Net Run ___ Sheet 1 of 1
Lat./Long. N 33.03202 W092.06308 Stream Moszy Lake I.D. Layher Netters Hancock + Layher
Length (m) ___ Width (m) U ___ M ___ L ___ Shock Time(sec) ___ Net Hours ___

	Species	Total Length (mm)	Weight (g)	Health
1	gill net nothing			
2				
3	F3			
4	BG	85 in F3		
5	F4			
6	WRMT	42 in F4		
7	OLSF	61 in F4		
8	F5			
9	Swamp Rd	46 in F5		
10	Combsfish	24 in F5		
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

	Species	Total Length (mm)	Weight (g)	Health
26	F1 and F2 nothing			
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				



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2

Fish Sample Field Data Sheet

Date (ddmmmyy) 2/3/05 **Method** Hoop Net #1 **Run** ____ **Sheet** 1 **of** 3
Lat./Long. N 33.03054 W092.07992 **Stream** Coffee Cr. Below Mossy Lake **I.D.** Layher **Netters** Hanebrink & Hatcher
Length (m) ____ **Width (m) U** ____ **M** ____ **L** ____ **Shock Time(sec)** ____ **Net Hours** ____

	Species	Total Length (mm)	Weight (g)	Health		Species	Total Length (mm)	Weight (g)	Health
1	Black Crappie	252			26				
2	Bowfin	614			27				
3	Blue catfish	542			28				
4	Blue catfish	423			29				
5	Bowfin	482			30				
6	Bowfin	610			31				
7					32				
8					33				
9					34				
10					35				
					36				
12					37				
13					38				
14					39				
15					40				
16					41				
17					42				
18					43				
19					44				
20					45				
21					46				
22					47				
23					48				
24					49				
25					50				

Coffee Creek below Mossy Lake

CCbML

Fish Sample Field Data Sheet

Date (ddmmmyy) 02/08/06 Method Hoop Net 2 & 3 Run ____ Sheet 2 of 3
Lat./Long. N 33.02968 W 92.08033 Stream Coffee Cr. Below Massy L. I.D. Layher Netters Rockett & Butler
Length (m) ____ Width (m) U ____ M ____ L ____ Shock Time(sec) ____ Net Hours ____

	Species	Total Length (mm)	Weight (g)	Health
1	Hoop 2			
2	GZD	275		
3	GZD	263		
4	GZD	254		
5	GZD	291		
6	Black Crappie	286		
7	Blk. Crappie	299		
8	White Crappie	253		
9	Blk. Crappie	292		
10	White Crappie	282		
	Bowfin	69		
12	Blue Catfish	650		
13				
14	Hoop 3	[illegible]		
15	Blue Cat	681		
16	Blue Cat	718		
17	Blue Cat	639		
18	"	602		
19	"	525		
20	"	545		
21	White Crappie	290		
22	"	310		
23	"	243		
24	"	262		
25	"	300		

	Species	Total Length (mm)	Weight (g)	Health
26	GZD	292		
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				

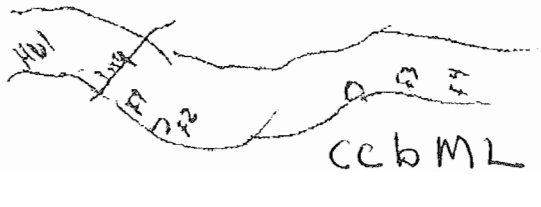
CC6ML

Fish Sample Field Data Sheet

Date (ddmmmyy) 2/8/04 Method Fike Net 1 & 2 Run ___ Sheet 3 of 3
Lat./Long. N 33.0314 W 92.08033 Stream Cutoff Cr. Below M 61 I.D. Layher Netters Hardwick & Butler
Length (m) ___ Width (m) U ___ M ___ L ___ Shock Time(sec) ___ Net Hours ___

	Species	Total Length (mm)	Weight (g)	Health
1	Flyer	147		
2	Miss Silv. Min	86		
3	"	72		
4				
5	FIKE NET #2			
6	Slough Darter			
7				
8				
9				
10				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

	Species	Total Length (mm)	Weight (g)	Health
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				



Fish Habitat Summary Report Coffee Creek below Mossy Lake - February 7, 2006							
Habitat Type	**Habitat Number**	**Length (ft.)**	**Substrate Score**	**Instream Habitat Score**	**Embeddedness**	**Habitat Score**	**IHI**
Run	1	180.4	1.3	40	3	44.3	
	Sum/Avg	180.4	1.3	40	3	44.3	79.9

INSTREAM & RIPARIAN HABITAT

STATION NO.: Coffee Creek Below ML DATE: 02-07-2006

Sample Location: All Visual Estimate

++

Habitat Sequence:

1st	Run	5th	
2nd		6th	
3rd		7th	
4th		8th	

++

1st Habitat _____ Pool _____ Riffle _____ Run

Measurements ~~(feet)~~		Substrate Type (score)			Instream Cover	
Length	25m	Bedrock	X 0.1		Woody Debris	12
Channel Width	20-30m	Lg Boulder	X 1.0		Undercut Banks	5
Stream Width	10-19m	Boulder	X 1.0		Aquatic Veg	3
Avg. Depth	5-6 ft	Rubble	X 1.0		Hanging Veg	5
Max. Depth	8-10 ft	Gravel	X 0.5		Root Wads	10
		Sand	X 0.1		Leafy Debris	5
		Mud/Silt	13 X 0.1			

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: N/A Can't see est. 3

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: Visual Estimates only, toodeep to wade.

TOTAL SCORE: _____

++

2nd Habitat _____ Pool _____ Riffle _____ Run

Measurements (feet)		Substrate Type (score)			Instream Cover	
Length		Bedrock	X 0.1		Woody Debris	
Channel Width		Lg Boulder	X 1.0		Undercut Banks	
Stream Width		Boulder	X 1.0		Aquatic Veg	
Avg. Depth		Rubble	X 1.0		Hanging Veg	
Max. Depth		Gravel	X 0.5		Root Wads	
		Sand	X 0.1		Leafy Debris	
		Mud/Silt	X 0.1			

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: _____

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

EVENT 3

June 6, 2006

Fish Identification and Summary Table for Event 3 (6/06/06)

Common Name	Scientific Name	Reference Site		Coffee Creek		Mossy Lake		Coffee Creek below	
		Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
Blue Catfish	*Ictalurus furcatus*	0	0%	0	0%	0	0%	11	52%
Chain Pickerel	*Esox niger*	1	4%	0	0%	0	0%	0	0%
Common Carp	*Cyprinus carpio*	0	0%	0	0%	1	20%	8	38%
Flier	*Centrarchus macropterus*	14	61%	0	0%	0	0%	0	0%
Golden Topminnow	*Fundulus chrysotus*	1	4%	0	0%	0	0%	0	0%
Mosquitofish	*Gambusia affinis*	5	22%	3	75%	0	0%	0	0%
Pugnose Minnow	*Opsopoeodus emiliae*	2	9%	0	0%	0	0%	0	0%
Spotted Gar	*Lepisosteus oculatus*	0	0%	1	25%	4	80%	2	10%
Total Number Identified		23		4		5		21	
Total Taxa		5		2		2		3	

[1]Key Species (from ADEQ's 2004 Regulation 2.302(3)(e))

[2]Indicator Species (from ADEQ's 2004 Regulation 2.302(3)(e))

[3]Species of Concern (from Arkansas Game and Fish Commission)

Fish Sample data—June 8, 2006

Reference Site	**06/08/06**
Flier	38, 39, 44, 41, 51, 52, 52, 43, 44, 44, 44, 45, 48, 38
Mosquitofish	51, 41, 41, 28, 21
Pugnose Minnow	31, 25
Chain Pickerel	91
Golden Topminnow	58

Fish Habitat Summary Report Reference Site - June 8, 2006							
Habitat Type	**Habitat Number**	**Length (ft.)**	**Substrate Score**	**Instream Habitat Score**	**Embeddedness**	**Habitat Score**	**IHI**
Pool	1	127.9	1.5	19	0	20.5	
	2	65.6	1.5	19	3	23.5	
	3	131.2	1.5	19	1	21.5	
	4	98.4	1.5	16	3	20.5	
	Sum/Avg	423.1	1.5	18.25	1.75	21.5	91.0
Run	1	6.6	1.5	18	3	22.5	
	2						
	Sum/Avg	6.6	1.5	18	3	22.5	1.5

INSTREAM & RIPARIAN HABITAT

TATION NO.: Reference Site DATE: 0-6-06

ample Location: _____

++

abitat Sequence:

1st	Pool	5th	Pool
2nd	Run	6th	
3rd	Pool	7th	
4th	Pool	8th	

++

st Habitat ✓ Pool ____ Riffle ____ Run

Measurements (~~feet~~ m)		Substrate Type (score)				Instream Cover	
ength	39m	Bedrock	0	X 0.1		Woody Debris	8
hannel Width	10m	Lg Boulder	0	X 1.0		Undercut Banks	0
tream Width	3m	Boulder	0	X 1.0		Aquatic Veg	0
vg. Depth	0.25m	Rubble	0	X 1.0		Hanging Veg	3
ax. Depth	0.40m	Gravel	0	X 0.5		Root Wads	3
		Sand	0	X 0.1		Leafy Debris	5
		Mud/Silt	15	X 0.1	1.5		

core: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

edimentation on Substrate: 0

core: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

otes: _____

TOTAL SCORE: _____

++

nd Habitat ____ Pool ____ Riffle ✓ Run

Measurements (~~feet~~ m)		Substrate Type (score)				Instream Cover	
ength	2	Bedrock		X 0.1		Woody Debris	13
hannel Width	8m	Lg Boulder		X 1.0		Undercut Banks	0
tream Width	0.5m	Boulder		X 1.0		Aquatic Veg	0
vg. Depth	0.1m	Rubble		X 1.0		Hanging Veg	0
ax. Depth	0.15m	Gravel		X 0.5		Root Wads	0
		Sand		X 0.1		Leafy Debris	5
		Mud/Silt	15	X 0.1			

core: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

edimentation on Substrate: ~~10~~ 3

core: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

otes: _____

TOTAL SCORE: —

3rd Habitat ✓ Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type	(score)	Instream Cover	
Length	20	Bedrock	X 0.1	Woody Debris	12
Channel Width	6.9	Lg Boulder	X 1.0	Undercut Banks	0
Stream Width	2	Boulder	X 1.0	Aquatic Veg	0
Avg. Depth	0.20	Rubble	X 1.0	Hanging Veg	1
Max. Depth	0.30	Gravel	X 0.5	Root Wads	1
		Sand	X 0.1	Leafy Debris	5
		Mud/Silt 15	X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: ~~12~~ 3
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: Log Jam at end

TOTAL SCORE: ____

++

4th Habitat ✓ Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type	(score)	Instream Cover	
Length	40 m	Bedrock	X 0.1	Woody Debris	5
Channel Width	12 m	Lg Boulder	X 1.0	Undercut Banks	0
Stream Width	4 m	Boulder	X 1.0	Aquatic Veg	0
Avg. Depth	0.30m	Rubble	X 1.0	Hanging Veg	2
Max. Depth	0.45m	Gravel	X 0.5	Root Wads	4
		Sand	X 0.1	Leafy Debris	8
		Mud/Silt 15	X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 1
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: ____

TOTAL SCORE: ____

++

5th Habitat ✓ Pool ____ Riffle ____ Run

Measurements (feet)		Substrate Type	(score)	Instream Cover	
Length	30m	Bedrock	X 0.1	Woody Debris	5
Channel Width	11	Lg Boulder	X 1.0	Undercut Banks	0
Stream Width	5	Boulder	X 1.0	Aquatic Veg	0
Avg. Depth	0.35	Rubble	X 1.0	Hanging Veg	0
Max. Depth	0.45	Gravel	X 0.5	Root Wads	5
		Sand	X 0.1	Leafy Debris	6
		Mud/Silt 15	X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 3
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: ____

TOTAL SCORE: ____

Fish Sample data—June 8, 2006

Coffey Greek	**6/7/06; checked on 6/8/06**
Hoop Net 1	
Spotted Gar	559
Hoop Net 2	No fish
Fyke Net 1	No fish
Fyke Net 2	
Mosquitofish	21, 32, 35

Fish Habitat Summary Report Coffee Creek - June 6, 2006							
Habitat Type	Habitat Number	Length (ft.)	Substrate Score	Instream Habitat Score	Embeddedness	Habitat Score	IHI
Run	1	164	1.5	37	0	38.5	
	Sum/Avg	164	1.5	37	0	38.5	63.1

INSTREAM & RIPARIAN HABITAT

STATION NO.: Coffee Creek DATE: 06-06-06

Sample Location: _____

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Habitat Sequence: 1st Run 5th _____
2nd _____ 6th _____
3rd _____ 7th _____
4th _____ 8th _____

++

1st Habitat _____ Pool _____ Riffle V Run

Measurements (~~feet~~ m)		Substrate Type (score)			Instream Cover	
Length	50	Bedrock	X 0.1		Woody Debris	6
Channel Width	4m	Lg Boulder	X 1.0		Undercut Banks	13
Stream Width	4m	Boulder	X 1.0		Aquatic Veg	2
Avg. Depth	0.60m	Rubble	X 1.0		Hanging Veg	3
Max. Depth	0.90 m	Gravel	X 0.5		Root Wads	3
		Sand	X 0.1		Leafy Debris	10
		Mud/Silt	15 X 0.1			

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 0
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

++

2nd Habitat _____ Pool _____ Riffle _____ Run

Measurements (feet)		Substrate Type (score)			Instream Cover	
Length		Bedrock	X 0.1		Woody Debris	
Channel Width		Lg Boulder	X 1.0		Undercut Banks	
Stream Width		Boulder	X 1.0		Aquatic Veg	
Avg. Depth		Rubble	X 1.0		Hanging Veg	
Max. Depth		Gravel	X 0.5		Root Wads	
		Sand	X 0.1		Leafy Debris	
		Mud/Silt	X 0.1			

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: _____
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

Fish Sample data—June 8, 2006

Mossy Lake 06/07/06 – checked on 06/08/06

Gill Net—	No fish
Fyke Net 1	
Spotted Gar	590, 526
Common Carp	647
Fyke Net 2	
Spotted Gar	545
Fyke Net 3	No fish
Fyke Net 4	
Spotted Gar	548

Fish Sample data---June 8, 2006

Coffey Greek (Below Mossy Lake): 06/07/06 – checked on 06/08/06

Fyke Net 1

Spotted Gar	558

Hoop Net 1

Blue Catfish	507, 507, 459, 467, 439

Hoop Net 2

Common Carp	726
Blue Catfish	452
Spotted Gar	647

Hoop Net 3

Blue Catfish	471, 381, 594, 614, 593
Common Carp	614, 653, 639, 675, 754, 614, 612

Fyke Net 2 No fish

Fish Habitat Summary Report Coffee Creek below Mossy Lake - June 8, 2006							
Habitat Type	**Habitat Number**	**Length (ft.)**	**Substrate Score**	**Instream Habitat Score**	**Embeddedness**	**Habitat Score**	**IHI**
Run	1	59	1.5	30	6	37.5	
	2	70.5	1.5	29	6	36.5	
	3	65.6	1.5	21	4	26.5	
	Sum/Avg	195.1	1.5	26.7	5.3	33.5	65.4
Pool	1	49.2	1.5	33	5	39.5	
	2						
	Sum/Avg	49.2	1.5	33	5	39.5	19.4

INSTREAM & RIPARIAN HABITAT

STATION NO.: Coffee Creek Below ML DATE: 06-08-06

Sample Location: _____

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Habitat Sequence: 1st _____ 5th _____
2nd _____ 6th _____
3rd _____ 7th _____
4th _____ 8th _____

++

1st Habitat ____ Pool ____ Riffle X Run

Measurements ~~(feet)~~ M		Substrate Type (score)		Instream Cover	
Length	18	Bedrock	X 0.1	Woody Debris	12
Channel Width	15	Lg Boulder	X 1.0	Undercut Banks	3
Stream Width	9	Boulder	X 1.0	Aquatic Veg	0
Avg. Depth	0.7	Rubble	X 1.0	Hanging Veg	3
Max. Depth	0.9	Gravel	X 0.5	Root Wads	5
		Sand	X 0.1	Leafy Debris	5
		Mud/Silt	85 X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 6
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

++

2nd Habitat ____ Pool ____ Riffle X Run

Measurements (feet)		Substrate Type (score)		Instream Cover	
Length	21.5	Bedrock	X 0.1	Woody Debris	12
Channel Width	17	Lg Boulder	X 1.0	Undercut Banks	2
Stream Width	10	Boulder	X 1.0	Aquatic Veg	0
Avg. Depth	0.7	Rubble	X 1.0	Hanging Veg	4
Max. Depth	1	Gravel	X 0.5	Root Wads	5
		Sand	X 0.1	Leafy Debris	6
		Mud/Silt	15 X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 6
Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: —

3rd Habitat _____ Pool _____ Riffle X Run

Measurements (feet)		Substrate Type	(score)	Instream Cover	
Length	20	Bedrock	X 0.1	Woody Debris	10
Channel Width	18	Lg Boulder	X 1.0	Undercut Banks	0
Stream Width	10	Boulder	X 1.0	Aquatic Veg	0
Avg. Depth	0.6	Rubble	X 1.0	Hanging Veg	0
Max. Depth	0.8	Gravel	X 0.5	Root Wads	3
		Sand	X 0.1	Leafy Debris	8
		Mud/Silt 19	X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 4

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

++

4th Habitat X Pool _____ Riffle _____ Run

Measurements (feet)		Substrate Type	(score)	Instream Cover	
Length	15	Bedrock	X 0.1	Woody Debris	15
Channel Width	10	Lg Boulder	X 1.0	Undercut Banks	0
Stream Width	15	Boulder	X 1.0	Aquatic Veg	0
Avg. Depth	0.9	Rubble	X 1.0	Hanging Veg	3
Max. Depth	1.3	Gravel	X 0.5	Root Wads	8
		Sand	X 0.1	Leafy Debris	7
		Mud/Silt 19	X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: 5

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____

++

5th Habitat _____ Pool _____ Riffle _____ Run

Measurements (feet)		Substrate Type	(score)	Instream Cover	
Length		Bedrock	X 0.1	Woody Debris	
Channel Width		Lg Boulder	X 1.0	Undercut Banks	
Stream Width		Boulder	X 1.0	Aquatic Veg	
Avg. Depth		Rubble	X 1.0	Hanging Veg	
Max. Depth		Gravel	X 0.5	Root Wads	
		Sand	X 0.1	Leafy Debris	
		Mud/Silt	X 0.1		

Score: Abundant 11-15 Common 6-10 Sparce 1-5 Absent 0

Sedimentation on Substrate: _____

Score: None 11-15 Light 6-10 Noticeable 1-5 Excessive 0

Notes: _____

TOTAL SCORE: _____