

The Freshwater Mussel Resources  
of the Buffalo National River, Arkansas  
Phase I Qualitative Survey: Location, Species Composition,  
and Status of Mussel Beds

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FINAL REPORT

Submitted by:

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Introduction

Freshwater mussels (also called naiads, unionids, or clams) of the families Margaritiferidae and Unionidae are worldwide in distribution but reach their greatest diversity in North America with about 297 recognized taxa (281 species and 16 subspecies) (Williams et al, 1993). Adult mussels occupy a wide range of habitats but are most often associated with lotic (running) waters. Mussels are planktivores and serve as food for fishes and other vertebrate predators.

During the past 30 years, numbers of both individuals and species diversity of native mussels have declined throughout the United States and Canada. Freshwater mussels (as well as other aquatic species) are disproportionately imperiled relative to terrestrial species. For example, The Nature Conservancy recognized 55 percent of North America's mussels as extinct or imperiled compared to only seven percent of the continent's bird and mammal species (Master 1990). This alarming decline, the severity of which was not recognized until recently, is primarily the result of habitat destruction and degradation associated with adverse anthropogenic activities (Williams et al, 1993).

The freshwater mussel fauna of the Buffalo National River has been studied by Meek and Clark (1912) and Babcock and McDonald (1973). Twenty-six species have been recorded from the Buffalo River drainage (Gordon et al, 1980), and these species are listed in Table 1.

Table 1. Freshwater mussels of the Buffalo River, Arkansas (Gordon et al, 1980).

Species (Scientific Name)	Common Name
<i>Actinonaias ligamentina</i>	mucket
<i>Alasmidonta marginata</i>	elktoe
<i>Amblyma plicata</i>	threeridge
<i>Cyclonaias tuberculata</i>	purple wartyback
<i>Cyprogenia aberti</i>	western fanshell
<i>Elliptio dilatata</i>	spike
<i>Fusconaia flava</i>	Wabash pigtoe
<i>Fusconaia ozarkensis</i>	Ozark pigtoe
<i>Lampsilis cardium</i>	plain pocketbook
<i>Lampsilis reeveiana</i>	Arkansas broken-ray
<i>Lampsilis siliquoidea</i>	fatmucket
<i>Lasmigona costata</i>	fluted-shell
<i>Ligumia recta</i>	black sandshell
<i>Ligumia subrostrata</i>	pondmussel
<i>Pleurobema coccineum</i>	round pigtoe
<i>Potamilus purpuratus</i>	bleufer
<i>Ptychobranhus occidentalis</i>	Ouachita kidneyshell
<i>Quadrula cylindrica</i>	rabbitsfoot
<i>Quadrula pustulosa</i>	pimpleback
<i>Strophitus undulatus</i>	squawfoot
<i>Toxolasma lividus</i>	purple lilliput
<i>Toxolasma parvus</i>	lilliput
<i>Tritogonia verrucosa</i>	pistolgrip
<i>Venustaconcha pleasi</i>	bleedingtooth mussel
<i>Villosa iris</i>	rainbow
<i>Villosa lienosa</i>	little spectaclecase

The Meek and Clark (1912) survey was conducted from July 21 through August 6, 1910. Their survey encompassed the entire mainstem of the river from the Arkansas Highway 7 crossing in Newton County downstream to the confluence with the White River. In addition to determining the species occurring in the Buffalo River, Meek and Clark recorded the location and relative species

composition of mussel beds from 26 stations along the river's length. Meek and Clark determined "mussel beds, as compared with those on the White River, were neither large nor plentiful, and these occupied only the favorable places in the bed of the stream which appeared to be permanent. No beds were found on sand bars, and when found on gravel bars the sand and gravel were mixed with larger fragments of rocks".

The work of Meek and Clark offers a unique opportunity to determine the temporal and spatial stability of mussel beds in the Buffalo River over an 85-year period in terms of both species composition and physical location. This report summarizes results of a Phase I qualitative survey to determine the location, species composition and status of mussel beds in the Buffalo National River from Pruitt to the confluence with the White River. This approximately 100 river mile survey area covers essentially the same area surveyed by Meek and Clark in 1910.

### Methods

Buffalo National River personnel reviewed Meek and Clark (1912) descriptions of expedition camp sites and mussel bed sites and attempted to correlate these with modern maps. All camp site and mussel bed interpretations were transferred to USGS 7.5 minute topographic maps for use in the field.

The National Biological Survey and U. S. Department of the Interior Library and Archives were contacted in hopes of locating original field notes and/or maps from the Meek and Clark expedition to more precisely define locations of their survey stations. All attempts to locate original documents failed.

An attempt was made to traverse the entire survey area by canoe during the summer and fall 1995. Table 2 summarizes field days spent and segments covered.

Table 2. Dates and segments for Phase I Buffalo National River mussel survey, July - October 1995.

Date	Survey Segment
20 July 1995	Pruitt to Hasty low water bridge
21 July 1995	Hasty low water bridge to Mt. Hersey
19 August 1995	Woolum (White Bluff) to Tyler Bend
18 August 1995	Tyler Bend to Gilbert
20 August 1995	Gilbert to Maumee North
30 September 1995	Maumee North to Buffalo Point
1 October 1995	Buffalo Point to Camp 1
2 October 1995	Camp 1 to White River

Approximately 14 river miles between Mt. Hersey and downstream of Woolum were not covered during this survey because of low water conditions. On 19 August 1995, river conditions upstream and downstream of Woolum consisted of intermittent pools with long segments of dewatered gravel and cobble substrates. Discussions with locals and a pedestrian survey revealed that the river resurfaced in the vicinity of White Bluff (Section 6; R17W; T15N). Only one of Meek and Clark's stations was located in the area not covered during this survey.

Survey methodology consisted of canoeing the river until live mussels or relict shells were encountered. Low water levels, high water clarity, and presence of sporadic muskrat middens facilitated location of potential survey sites. Particular attention was given to areas in the immediate vicinity of presumed Meek and Clark survey locations.

When live or dead mussels were encountered, the area was surveyed by snorkeling techniques to determine the presence or absence of live mussels, the

area inhabited by live mussels, estimated maximum density of live mussels, and species composition of mussels at each site. Live mussels encountered were bagged, brought to the surface for identification and enumeration, and later replaced in the substrate in the area from which they were taken. Counts of common species were kept while snorkeling so that not all individuals were physically disturbed. Voucher specimens of each species were collected and will be deposited at the Arkansas State University Museum of Zoology.

Semi-quantitative samples were taken at six beds with the highest mussel densities within the survey area. Sample methodology consisted of placing a meter square quadrat composed of 2.5 cm PVC pipe in the area of maximum bivalve density and then removing all mussels encountered for identification and enumeration. All mussels (except vouchers) were then replaced in the substrate within the same m<sup>2</sup> from which they were removed.

Nomenclature used in this report follows Turgeon et al (1988). Appendix A lists synonyms and common names utilized by Meek and Clark (1912) and compares these with currently accepted scientific and common names.

## Results

Forty total sites were examined and mussels collected from them during this survey (Figures 1 and 2), and an additional 13 sites with minor mussel habitation were noted but not sampled. Twenty-one species of native unionid bivalves were identified during this survey from among the 1333 live and 246 fresh dead (relict shells) specimens examined. Table 3 summarizes the qualitative results of the specimens collected. Field notes from each survey site are located in Appendix B.

Five relatively abundant species accounted for approximately 82 percent of the live specimens examined, and these include *Actinonaias ligamentina* (36.0%), *Amblema plicata* (16.1%), *Ptychobranchus occidentalis* (11.4%), *Lampsilis*

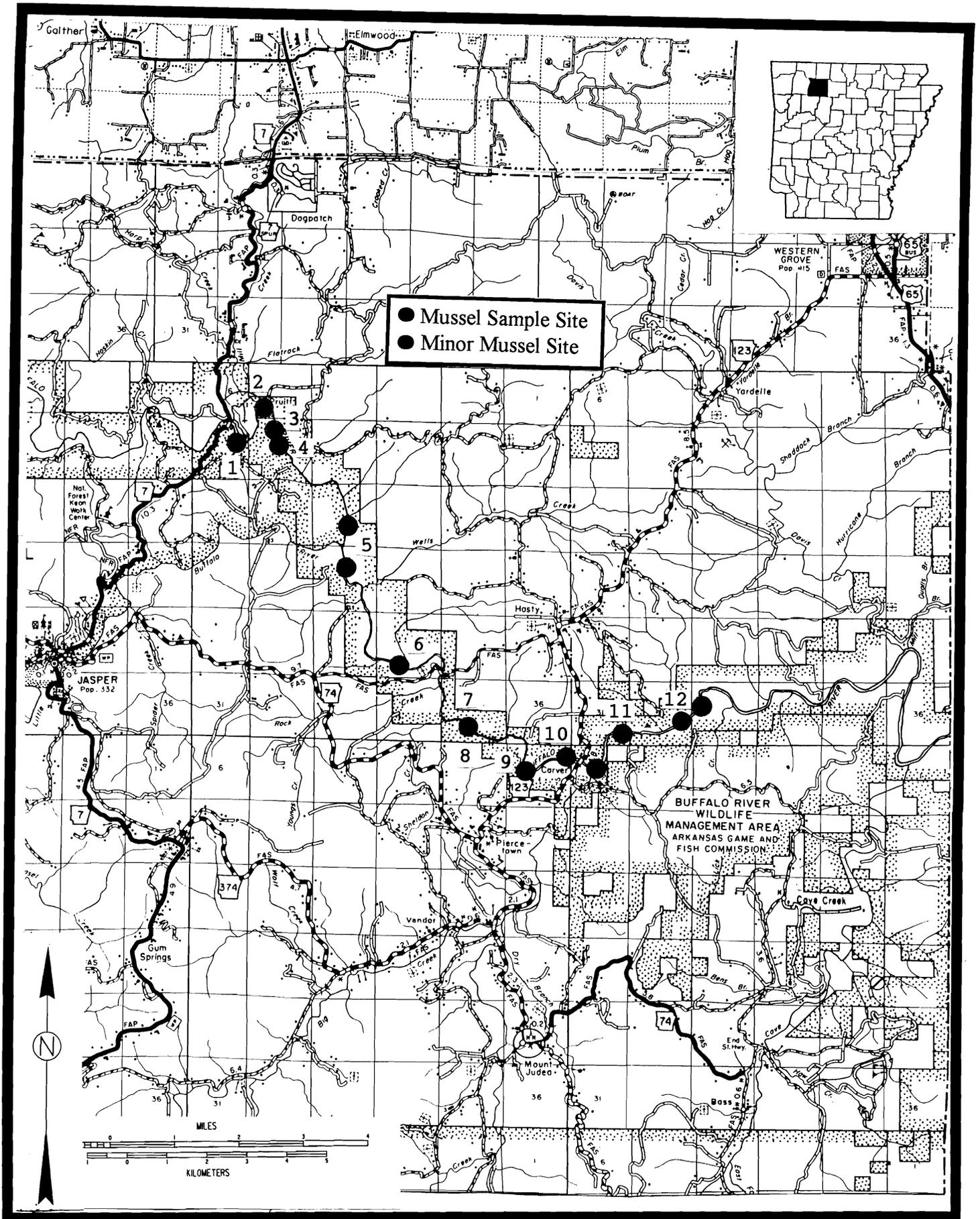
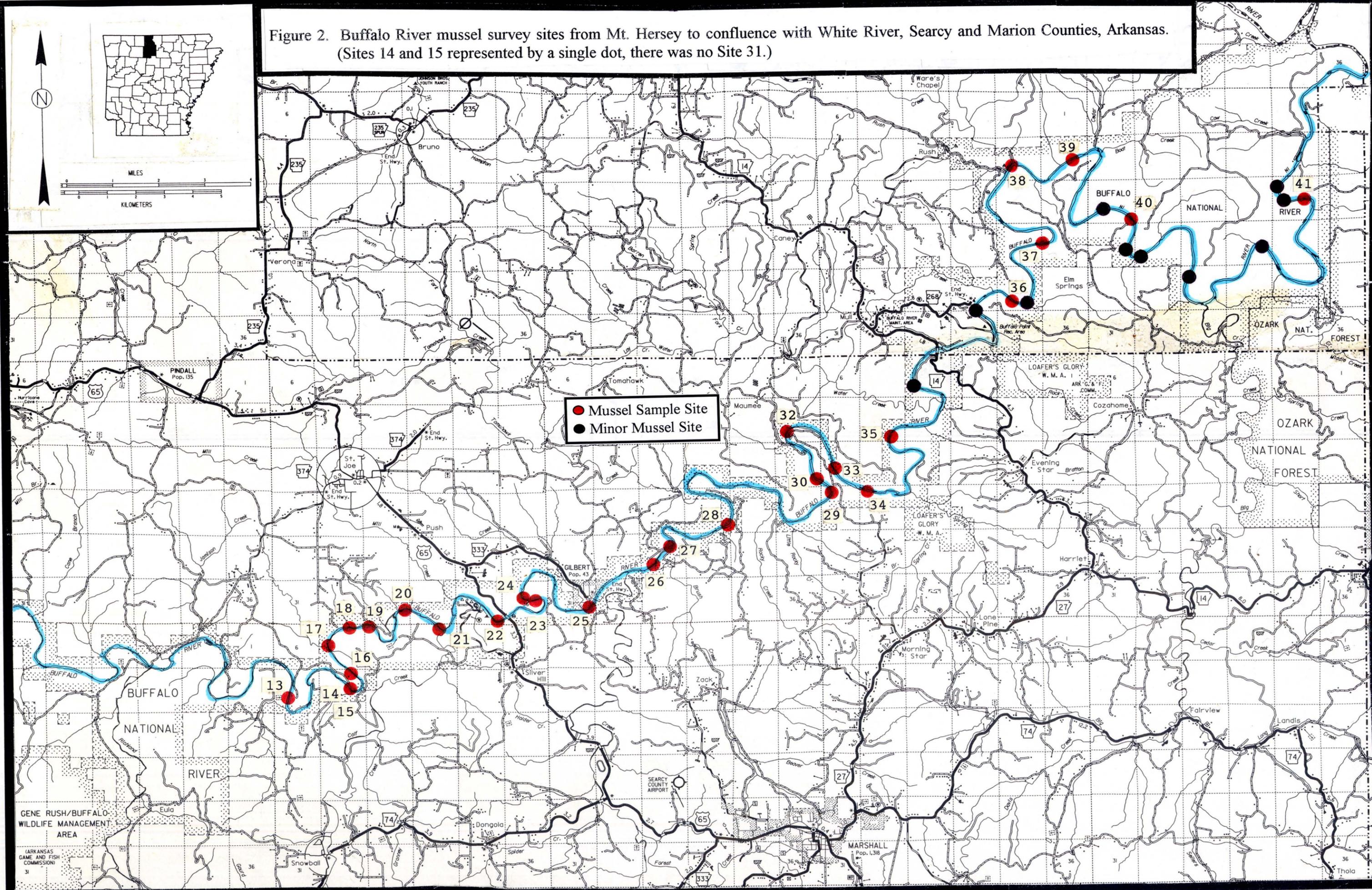


Figure 1. Buffalo River mussel survey sites from Pruitt to Mt. Hersey, Newton County, Arkansas. (Sites 7 and 8 represented by single dot.)

Figure 2. Buffalo River mussel survey sites from Mt. Hersey to confluence with White River, Searcy and Marion Counties, Arkansas.  
(Sites 14 and 15 represented by a single dot, there was no Site 31.)



● Mussel Sample Site  
● Minor Mussel Site

GENE RUSH/BUFFALO-  
WILDLIFE MANAGEMENT  
AREA  
(ARKANSAS  
GAME AND FISH  
COMMISSION)  
31

Common Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
<i>Actinonaias ligamentina</i>	2,0	2,0	1,0	4,0	9,0	6,0	1,0	12,++	41,0	24,4	8,0	2,0	2,0	2,0	6,0	0,0	31,0	3,0	2,0	1,0	8,0	0,+
mucket	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Alasmidonta marginata</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
elktoe	0,0	0,0	0,0	0,0	0,0	0,0	1,1	0,0	0,0	0,0	1,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Alasmidonta viridis</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
slippershell	5,0	3,0	0,0	0,0	1,0	0,0	0,0	0,0	24,2	3,1	0,0	1,0	0,0	0,4	2,0	2,0	0,0	0,0	0,0	0,0	3,0	0,+
<i>Amblema plicata</i>	0,0	0,0	0,0	0,0	1,0	0,0	0,0	0,0	0,0	11,4	1,0	0,0	0,0	0,0	1,0	5,0	43,0	0,0	0,0	0,0	5,0	0,0
threeidge	0,0	0,0	0,0	0,0	1,0	0,0	0,0	0,0	0,0	1,1	2,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Cyclonaias tuberculata</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
purple wartybuck	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,1	2,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Cyprogenia aberrit</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,0	0,0	4,4	0,0	0,1	0,0	0,0	0,0	3,0	0,0	0,0	0,0	0,0	0,0	0,0
western fanshell	0,0	0,0	0,0	0,0	1,1	0,0	0,1	0,0	0,0	0,0	0,0	0,1	0,0	0,0	0,0	3,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Elliptio dilatata</i>	0,0	0,0	0,0	0,0	1,1	0,0	0,1	0,0	0,0	4,4	0,0	0,1	0,0	0,0	0,0	3,0	0,0	0,0	0,0	0,0	0,0	0,0
spike	0,0	0,0	0,0	0,0	1,0	0,0	0,0	0,0	1,0	3,0	0,0	0,0	0,0	0,0	0,0	5,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Fusconaia flava</i>	1,0	0,0	0,0	2,0	0,0	0,0	0,0	0,0	2,1	2,5	2,0	0,2	0,0	0,0	9,0	2,0	1,0	0,0	2,0	0,0	2,0	0,0
Wabasha pigtoe	1,0	0,0	0,0	2,0	0,0	0,0	0,0	0,0	2,1	2,5	2,0	0,2	0,0	0,0	9,0	2,0	1,0	0,0	2,0	0,0	2,0	0,0
<i>Fusconaia ozarkensis</i>	1,0	0,0	2,0	5,0	6,0	3,0	5,3	0,0	2,3	2,0	0,0	0,1	0,0	0,0	8,0	0,0	1,0	0,0	0,0	0,0	0,0	0,0
Ozark pigtoe	1,0	0,0	2,0	5,0	6,0	3,0	5,3	0,0	2,3	2,0	0,0	0,1	0,0	0,0	8,0	0,0	1,0	0,0	0,0	0,0	0,0	0,0
<i>Lampsilis cardium</i>	1,0	6,0	6,3	0,0	11,1	0,4	19,2	0,0	0,0	0,1	3,0	2,27	1,0	2,0	16,0	0,0	29,0	0,0	4,0	2,0	5,0	0,0
plain pocketbook	1,0	6,0	6,3	0,0	11,1	0,4	19,2	0,0	0,0	0,1	3,0	2,27	1,0	2,0	16,0	0,0	29,0	0,0	4,0	2,0	5,0	0,0
<i>Lampsilis reveiana</i>	2,0	0,0	0,0	0,0	1,0	0,0	0,0	1,0	4,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,0	0,0	1,0	0,0
Arkansas broken-ray	2,0	0,0	0,0	0,0	1,0	0,0	0,0	1,0	4,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,0	0,0	1,0	0,0
<i>Lasnigona costata</i>	0,0	0,0	0,0	4,6	0,0	0,0	0,0	0,0	2,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,0	0,0	1,0	0,0
fluted shell	0,0	0,0	0,0	4,6	0,0	0,0	0,0	0,0	2,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	2,0	0,0	1,0	0,0
<i>Pleurobema coccineum</i>	0,0	0,0	0,0	1,1	5,0	0,0	13,10	0,0	0,0	5,2	68,0	10,87	0,0	0,0	38,0	5,1	0,0	0,0	0,0	0,0	2,0	0,0
round pigtoe	0,0	0,0	0,0	1,1	5,0	0,0	13,10	0,0	0,0	5,2	68,0	10,87	0,0	0,0	38,0	5,1	0,0	0,0	0,0	0,0	2,0	0,0
<i>Pychobranchus occidentalis</i>	6,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,0	0,0	0,0	2,0	0,0	0,0	0,0
Quachita kidneyshell	6,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	1,0	0,0	0,0	2,0	0,0	0,0	0,0
<i>Quadrula cylindrica</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
rabbitfoot	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Strophitus undulatus</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
squawfoot	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,0	0,0	0,0	2,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Toxolasma lividus</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
purple lilliput	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,+
<i>Trigonia verrucosa</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,+
pistolgrip	0,0	0,0	1,0	0,0	1,0	0,0	6,3	0,0	0,0	0,0	0,0	0,4	1,0	0,0	3,0	0,0	3,0	0,0	0,0	0,0	2,0	0,0
<i>Venustaconcha pleasi</i>	1,0	2,0	3,2	0,0	12,2	0,2	0,0	0,0	0,2	0,0	0,0	0,0	0,0	0,0	2,0	0,0	6,0	0,0	0,0	0,0	0,0	0,0
bleedingtooth mussel	1,0	2,0	3,2	0,0	12,2	0,2	0,0	0,0	0,2	0,0	0,0	0,0	0,0	0,0	2,0	0,0	6,0	0,0	0,0	0,0	0,0	0,0
<i>Villosa iris</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
rainbow shell	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
<i>Villosa lienosa</i>	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
spectaclecase	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Total Species	8	4	5	5	11	4	7	2	9	11	7	8	3	4	9	7	7	1	8	2	9	3
Total Specimens	19,0	13,0	13,5	16,7	49,4	9,6	45,20	13,0	76,10	55,23	85,0	15,122	4,0	10,0	85,0	23,1	114,0	3,0	35,0	3,0	29,0	0,0

Table 3. Mussel species and specimens (live, fresh dead) collected at sample sites. % Total = percent of total live specimens.

Scientific Name	Sample Site																																								Summary	
	23	24	25	26	27	28	29	30	32	33	34	35	36	37	38	39	40	41	Total	% Total																						
<i>Actinonaias ligamentina</i>	1, +	4, 0	16, 0	6, 0	13, 0	4, +	3, 6	15, 0	23, 0	3, 0	0, 0	10, 0	125, 0	34, 0	41, 0	17, 0	1, ++	0, 6	480, 16	36.0																						
mucket	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 1	0, 1	0.0																						
<i>Alasmidonta marginata</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, 1	0.2																						
elktoe	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	214, 9	16.1																						
<i>Alasmidonta viridis</i>	0, ++	6, 0	28, 0	22, 0	6, 0	1, +	26, 5	30, 0	2, 0	0, 0	0, 0	2, 0	11, 1	1, 0	12, 0	2, 0	0, 0	0, 0	214, 9	16.1																						
slippershell	0, ++	6, 0	28, 0	22, 0	6, 0	1, +	26, 5	30, 0	2, 0	0, 0	0, 0	2, 0	11, 1	1, 0	12, 0	2, 0	0, 0	0, 0	214, 9	16.1																						
<i>Amblema plicata</i>	0, 0	4, 0	14, 0	1, 0	3, 0	0, 0	0, 0	0, 0	3, 1	0, 0	0, 0	0, 0	2, 0	4, 0	2, 0	1, 0	0, 0	0, 1	106, 6	8.0																						
threeidge	0, 0	4, 0	14, 0	1, 0	3, 0	0, 0	0, 0	0, 0	3, 1	0, 0	0, 0	0, 0	2, 0	4, 0	2, 0	1, 0	0, 0	0, 1	106, 6	8.0																						
<i>Cyclonaias tuberculata</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	4, 1	0.3																						
purple wartyback	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	4, 1	0.3																						
<i>Cyprogenia aberti</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, +	0, 0	14, 8	1.1																						
western fanshell	0, 0	0, 0	2, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 1	0, 0	0, 0	1, 0	0, 0	1, 0	0, 0	0, 0	2, +	0, 0	14, 8	1.1																						
<i>Elliptio dilatata</i>	0, 0	0, 0	2, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 1	0, 0	0, 0	1, 0	0, 0	1, 0	0, 0	0, 0	2, +	0, 0	14, 8	1.1																						
spike	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 1	0, 0	0, 0	0, 0	0, 0	0, 0	10, 2	0.8																						
<i>Fusconaia flava</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 2	0, 0	4, 1	0, 0	0, 0	2, 0	1, 0	0, 0	0, 0	2, 0	0, 0	0, 7	38, 18	2.9																						
Wabash pigtoe	0, 0	2, 0	2, 0	0, 0	0, 0	0, 0	0, 2	0, 0	4, 1	0, 0	0, 0	2, 0	1, 0	0, 0	0, 0	2, 0	0, 0	0, 7	38, 18	2.9																						
<i>Fusconaia ozarckenis</i>	0, 0	2, 0	2, 0	0, 0	0, 0	0, 0	0, 2	0, 0	4, 1	0, 0	0, 0	2, 0	1, 0	0, 0	0, 0	2, 0	0, 0	0, 7	38, 18	2.9																						
Ozark pigtoe	0, 0	2, 0	2, 0	0, 0	0, 0	0, 0	0, 2	0, 0	4, 1	0, 0	0, 0	2, 0	1, 0	0, 0	0, 0	2, 0	0, 0	0, 7	38, 18	2.9																						
<i>Lampsilis cardium</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 2	0, 0	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	0, 2	39, 11	2.9																						
plain pocketbook	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 2	0, 0	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	0, 2	39, 11	2.9																						
<i>Lampsilis reeveiana</i>	1, 0	2, 0	6, 0	0, 0	0, 0	0, 0	0, 1	6, 0	1, 1	2, 0	0, 1	1, 0	1, 2	6, 0	2, 0	3, 0	0, 0	0, 47	138, 90	10.4																						
Arkansas broken-ray	1, 0	2, 0	6, 0	0, 0	0, 0	0, 0	0, 1	6, 0	1, 1	2, 0	0, 1	1, 0	1, 2	6, 0	2, 0	3, 0	0, 0	0, 47	138, 90	10.4																						
<i>Lasmigona costata</i>	0, 0	0, 0	3, 0	0, 0	1, 0	0, 0	0, 0	0, 0	8, 0	0, 0	0, 0	2, 0	1, 0	5, 1	2, 0	3, 0	3, 0	0, 10	38, 13	2.9																						
fluted shell	0, 0	0, 0	3, 0	0, 0	1, 0	0, 0	0, 0	0, 0	8, 0	0, 0	0, 0	2, 0	1, 0	5, 1	2, 0	3, 0	3, 0	0, 10	38, 13	2.9																						
<i>Pleurobema coccineum</i>	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	1, 1	0, 0	2, 1	2, 0	0, 0	0, 0	16, 8	1.2																						
round pigtoe	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	1, 1	0, 0	2, 1	2, 0	0, 0	0, 0	16, 8	1.2																						
<i>Psychobranchus occidentalis</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, 0	0, 0	0, 0	2, 0	1, 0	0, 53	152, 154	11.4																						
<i>Quachita kidneyshell</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, 0	0, 0	0, 0	2, 0	1, 0	0, 53	152, 154	11.4																						
<i>Quadrula cylindrica</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	9, 0	0.7																						
rabbitsfoot	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	1, 0	0.1																						
<i>Strophitus undulatus</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	1, 0	0.1																						
squawfoot	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	1, 0	0.1																						
<i>Toxolasma lividus</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, 2	0.2																						
purple lilliput	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, 2	0.2																						
<i>Tritogonia verrucosa</i>	0, 0	0, 1	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	4, 0	0.3																						
pistolgrip	0, 0	0, 1	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	4, 0	0.3																						
<i>Venustaconcha pleasi</i>	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	0, 1	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	1, 1	0, 0	0, 0	0, 2	20, 11	1.5																						
bleedingtooth mussel	0, 0	0, 0	1, 0	0, 0	0, 0	0, 0	0, 1	0, 0	0, 0	0, 0	0, 0	1, 0	0, 0	0, 0	1, 1	0, 0	0, 0	0, 2	20, 11	1.5																						
<i>Villosa iris</i>	0, 1	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	10, 0	2, 0	0, 4	0, 0	1, 1	2, 0	0, 0	1, 0	2, +	0, 3	44, 17	3.3																						
rainbow shell	0, 1	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	10, 0	2, 0	0, 4	0, 0	1, 1	2, 0	0, 0	1, 0	2, +	0, 3	44, 17	3.3																						
<i>Villosa lienosa</i>	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0.2																						
spectaclecase	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	2, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0, 0	0.2																						
Total Species	4	6	10	3	5	2	7	3	11	3	2	8	10	7	8	11	6	10	21	100.3																						
Total Specimens	2, 1	19, 0	74, 0	29, 0	24, 0	5, 0	30, 18	51, 0	54, 4	7, 0	0, 5	25, 1	145, 6	53, 1	63, 2	35, 0	10, 0	0, 132	1333, 368	100.3																						

Table 3. Mussel species and specimens (live, fresh dead) collected at sample sites. % Total = percent of total live specimens.

*reeveiana* (10.4%), and *Cyclonaias tuberculata* (8.0%). Six species each accounted for < 0.3% of the live specimens examined, and these included *Cyprogenia aberti* and *Tritogonia verrucosa* (four individuals each), *Alasmidonta viridis*, *Toxolasma lividus*, and *Villosa lienosa* (two individuals each), and *Strophitus undulatus* (one individual). In addition, *Alasmidonta marginata* was not found alive but was represented in these collections by a single, fresh dead specimen recovered from a muskrat midden.

Semi-quantitative, maximum density samples were taken from six sites, and these results are presented in Table 4. Site 11 had a mean maximum density of 28.3 mussels/m<sup>2</sup>, and was dominated by *Ptychobranchus occidentalis* with a mean density of 22.7/m<sup>2</sup>. The Site 11 density was more than twice that of the other five sites sampled which had mean maximum densities ranging from 8.0 - 11.7 mussels/m<sup>2</sup>.

## Discussion

### *Species Occurrence and Relative Abundance*

Twenty-six species of native freshwater unionid bivalves were recognized by Gordon et al (1980) as occurring in the Buffalo National River. Meek and Clark recorded 22 species of unionid bivalves during their survey. Twenty-one species were collected as live or fresh dead specimens during this survey.

Meek and Clark recorded three species, *Lampsilis siliquoidea*, *Ligumia recta*, and *Potamilus purpuratus*, not found during this survey. Meek and Clark listed *Lampsilis siliquoidea* as rare in the Buffalo River, and it was represented in their collections by two specimens from a single survey station. *Lampsilis siliquoidea* is generally an uncommon species in the White River drainage and is more common in upland streams of the Arkansas River drainage.

Scientific name common name	BR 11 n=3	BR 16 n=2	BR 19 n=3	BR 21 n=3	BR 27 n=3	BR 39 n=3
<i>Actinonaias ligamentina</i> mucket	<b>2.7</b> 0-4	<b>0.0</b>	<b>0.7</b> 0-1	<b>2.7</b> 1-5	<b>4.3</b> 2-7	<b>5.7</b> 4-8
<i>Alasmidonta viridis</i> slippershell mussel	<b>0.3</b> 0-1	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Amblema plicata</i> threeridge	<b>0.0</b>	<b>1.0</b> 0-2	<b>5.7</b> 2-12	<b>1.0</b> 0-3	<b>2.0</b> 1-3	<b>0.7</b> 0-1
<i>Cyclonaias tuberculata</i> purple wartyback	<b>0.3</b> 0-1	<b>2.5</b> 2-3	<b>1.7</b> 1-2	<b>1.7</b> 0-4	<b>1.0</b> 0-2	<b>0.3</b> 0-1
<i>Cyprogenia aberti</i> western fanshell	<b>0.7</b> 0-1	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b> 0-1
<i>Elliptio dilatata</i> spike	<b>0.0</b>	<b>1.5</b> 0-3	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Fusconaia flava</i> Wabash pigtoe	<b>0.0</b>	<b>2.5</b> 0-5	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Fusconaia ozarkensis</i> Ozark pigtoe	<b>0.7</b> 0-1	<b>1.0</b> 1-1	<b>0.7</b> 0-1	<b>0.7</b> 0-1	<b>0.0</b>	<b>0.7</b> 0-1
<i>Lampsilis cardium</i> plain pocketbook	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b> 0-1	<b>0.3</b> 0-1	<b>0.0</b>
<i>Lampsilis reeveiana</i> Arkansas brokenray	<b>1.0</b> 0-2	<b>0.0</b>	<b>1.3</b> 0-2	<b>1.7</b> 0-3	<b>0.0</b>	<b>1.0</b> 0-2
<i>Lasmigona costata</i> fluted-shell	<b>0.0</b>	<b>0.0</b>	<b>0.3</b> 0-1	<b>0.3</b> 0-1	<b>0.3</b> 0-1	<b>1.0</b> 0-2
<i>Pleurobema coccineum</i> round pigtoe	<b>0.0</b>	<b>0.0</b>	<b>0.7</b> 0-2	<b>0.3</b> 0-1	<b>0.0</b>	<b>0.7</b> 0-1
<i>Ptychobranhus occidentalis</i> Ouachita kidneyshell	<b>22.7</b> 16-28	<b>2.5</b> 2-3	<b>0.0</b>	<b>0.7</b> 0-1	<b>0.0</b>	<b>0.7</b> 0-2
<i>Quadrula cylindrica</i> rabbitsfoot	<b>0.0</b>	<b>0.5</b> 0-1	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<i>Strophitus undulatus</i> squawfoot	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b> 0-1
<i>Venustaconcha pleasi</i> bleedingtooth mussel	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b> 0-2	<b>0.0</b>	<b>0.0</b>
<i>Villosa iris</i> rainbow shell	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.3</b> 0-1
<b>TOTAL</b>	<b>28.3</b> 23-33	<b>11.5</b> 6-17	<b>11.0</b> 5-21	<b>10.0</b> 6-16	<b>8.0</b> 5-13	<b>11.7</b> 9-16

Table 4. Mean density (bold) and ranges for specimens encountered in semi-quantitative m<sup>2</sup> samples (n = number of samples).

The absence of *Ligumia recta* and *Potamilus purpuratus* during the 1995 survey is surprising considering that they are usually moderately common species in most medium to large rivers of the White River drainage. Meek and Clark encountered *Potamilus purpuratus* at five stations, considered it fairly common from Gilbert to near the confluence with Big Creek, and 25 individuals were collected. Meek and Clark found *Ligumia recta* at ten stations and secured 46 specimens but considered the species rather scarce in the Buffalo River.

The relative abundance of *Quadrula cylindrica*, *Elliptio dilatata*, and *Tritogonia verrucosa* may have declined in the 85+ years since the Meek and Clark survey. Fifty-nine individuals of *Quadrula cylindrica* were collected from 11 stations by Meek and Clark. They considered the species abundant at one station and common at eight additional stations. During the present survey, a total of nine specimens were found at three sites, and six of these were encountered at Site BR 1.

*Elliptio dilatata* was reported from 18 stations (abundant at one, common at three) and 77 specimens were collected by Meek and Clark. They reported "the most common form is the familiar medium-sized shell with violet nacre" however "those obtained at Station 3 and those collected at Station 12 are large shells with white porcelaneous nacre" and "the five examples taken at Station 6 are dwarfed specimens with orange nacre". It is highly probable that the specimens referred to from Stations 3, 6, and 12 were actually *Ptychobranthus occidentalis* which Meek and Clark did not recognize as occurring in the Buffalo River. During the present survey, four live and seven fresh dead *Elliptio dilatata* were found at nine sites. *Ptychobranthus occidentalis* was represented in the present survey by 152 live and 67 fresh dead specimens from 13 sites.

Meek and Clark listed *Tritogonia* as a fairly common shell distributed from approximately Woolum to the confluence with Big Creek. It was collected at 13

Meek and Clark stations, and was considered common at three of those stations. A total of 48 specimens were collected by Meek and Clark. During our 1995 survey, a total of four live *Tritogonia* were collected from four sites.

Meek and Clark (1912) failed to list *Fusconaia flava* as occurring in the Buffalo River. *Fusconaia flava* may have been misidentified or lumped with specimens of *Pleurobema coccineum*, as headwater forms of the two species are often difficult to differentiate without gravid females with soft parts.

Gordon et al (1980) listed *Ligumia subrostrata*, *Quadrula pustulosa*, and *Toxolasma parvus* as occurring in the Buffalo National River. *Ligumia subrostrata* and *Toxolasma parvus* generally occur in tributaries and headwaters of larger streams and rivers, and thus, it is not surprising that they were not encountered within the survey area. However, *Quadrula pustulosa* is generally a common component of medium to large rivers of the White River drainage, and its absence from both the Meek and Clark survey and the present survey is surprising.

Gordon et al (1980) did not list *Alasmidonta viridis* as occurring in Arkansas or the Buffalo River, and a subsequent compendium by Harris and Gordon (undated) also omitted the species from the list of freshwater bivalves of Arkansas. Subsequently, Williams et al (1993) listed *Alasmidonta viridis* as occurring in Arkansas. Meek and Clark found two specimens at two stations in the upper portion of the survey area, and the collection of three specimens (two live, one fresh dead) from two sites during the present survey verifies its presence within the Buffalo National River and the state.

The absence of *Ligumia recta* and *Potamilus purpuratus* during this survey, and the apparent drastic decrease in relative abundance of *Tritogonia verrucosa* since the Meek and Clark survey are somewhat puzzling. One explanation is that the two surveys employed different survey techniques or placed emphasis on collecting in different habitats. Another explanation is that significant

environmental changes or habitat modifications have occurred since the Meek and Clark survey which render the Buffalo River unsuitable for these species. Possibly, the relative abundance of fish hosts for these three mussel species has been altered by water quality changes, substrate changes, etc. which, in turn, have altered the composition of the Buffalo River mussel population.

Siegwarth and Johnson (1994) reported significantly lower numbers of channel catfish migrating for spawning into the Buffalo River than into the Kings and Mulberry Rivers, and Siegwarth (1994) reported the Buffalo River has a sparse, natural adult channel catfish population. Keith (1964) documented the fish fauna of the White River below Bull Shoals reservoir, and hypolimnetic releases have apparently extirpated channel catfish (Brown, 1967), as well as other native fish species (Hoffman and Kilambi, 1971) from this reach of the White River. Perhaps larger, migrant spawning fishes have been eliminated or greatly reduced in the Buffalo River, and therefore, certain mussel species which once occurred in the river no longer have suitable fish hosts for reproduction. This possibility deserves further investigation.

Two bivalve species, *Lampsilis reeveiana* and *Villosa iris*, appear relatively more abundant now than during the Meek and Clark survey in 1910. Meek and Clark collected 27 specimens from seven stations, and they considered *Lampsilis reeveiana* scarce at each station. During the present survey, we collected 138 live and 63 fresh dead specimens from 30 sites. In fact, *Lampsilis reeveiana* comprised 10.4% of all live specimens examined during the 1995 survey.

Meek and Clark found but two specimens of *Villosa iris* during their survey, however, our 1995 collections yielded 44 live and 17 fresh dead specimens from 17 sites. This apparent increase in relative abundance may be an artifact of better understanding of the microhabitat preferences of *Villosa iris*. Harris (1993) reported that this diminutive species has an affinity for living under slab rocks, and

therefore, this microhabitat was thoroughly searched during the 1995 survey at each site where it was present.

*Temporal and Spatial Distribution of Mussel Beds*

The lack of exact locality data for Meek and Clark survey stations has greatly hindered direct comparison with results of the present study in terms of bivalve bed temporal stability, spatial distribution and species composition. Table 5 summarizes the Meek and Clark survey stations which may have corresponding bivalve beds in the present study. The most significant existing mussel beds in terms of species composition, density, and/or bed size (= area) are BR 10-12, BR 15-17, BR 19, BR 21, BR 25, BR 27, BR 36 and BR 39.

Table 5. Corresponding survey stations (bivalve bed locations) for the Meek and Clark survey and the present survey.

Meek and Clark Survey Stations	Harris Survey Stations
Station 2	BR 2
Station 3	BR 3 and/or 4
Station 4	BR 7 and 8
Station 10	BR 14 and/or 15
Station 11	BR 20
Station 12	BR 21
Station 14	BR 25
Station 16	Dead Shells Only
Station 17	BR 29 and/or 30
Station 18	BR 32
Station 19	BR 33 and/or 34
Station 20	BR 35
Station 22	BR 36
Station 23	BR 37
Station 25	BR 39
Station 26	BR 40

### *Sensitive Species*

Harris and Gordon (1987) considered *Cyprogenia aberti* and *Quadrula cylindrica* to be of Special Concern in Arkansas. Special concern status means population levels appear secure and localities are widespread enough to ensure that a single catastrophic event would not extirpate the species from the subject area. Both species are considered indicators of pristine water quality and unaltered substrates.

### Summary

A total of 39 mussel beds were sampled during the 1995 survey of the Buffalo National River, and thirteen additional minor beds were located but not sampled. Twelve of these beds were considered of high quality in terms of mussel density, bed area, and/or species composition.

Twenty-one mussel species were encountered during this survey as compared with 22 species collected by Meek and Clark (1912) and 26 species listed as occurring in the Buffalo River drainage by Gordon et al (1980). Following the 1995 survey, review of the literature, and comparison with currently recognized unionid taxa, it appears that 27 unionid bivalve species occur or have occurred historically within the Buffalo River drainage. These species are listed in Appendix C.

*Ligumia recta* and *Potamilus purpuratus* may have been extirpated from the Buffalo National River since the Meek and Clark expedition, and *Tritogonia verrucosa* appears to have declined in relative abundance. The relative abundance of *Lampsilis reeveiana* and *Villosa iris* appears to have increased since the Meek and Clark survey.

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J. T. Fleming assisted with the bulk of the field survey, and able assistance was also provided in the field by A. J. Harris, C. E. Harris, and W. K. Welch. J. Apel and G. Oviatt provided data for the Buffalo National River and also reviewed Meek and Clark (1912) to estimate the location of the 1910 survey stations. J.D. Williams provided historical data on Meek and Clark, and J. T. Fleming and H. W. Robison discussed hypotheses regarding changes in the Buffalo River fish and mussel faunas. Special thanks to G. Oviatt for administration of funding for this project.

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## Appendix A

Current scientific nomen (Turgeon et al, 1988) and  
synonyms used by Meek and Clark (1912)

Scientific Name  
common name  
(Turgeon et al, 1988)

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*Actinonaias ligamentina* (LaMarck)  
mucket  
*Alasmidonta marginata* Say  
elktoe  
*Alasmidonta viridis* (Rafinesque)  
slippershell mussel  
*Amblema plicata* (Say)  
threeridge  
*Cyclonaias tuberculata* (Rafinesque)  
purple wartyback  
*Cyprogenia aberti* (Conrad)  
western fanshell  
*Elliptio dilatata* (Rafinesque)  
spike  
*Fusconaia flava* (Rafinesque)  
Wabash pigtoe  
*Fusconaia ozarkensis* (Call)  
Ozark pigtoe  
*Lampsilis cardium* (Rafinesque)  
plain pocketbook  
*Lampsilis reeviana* (I. Lea)  
Arkansas broken-ray  
*Lampsilis siliquioidea* (Barnes)  
fatmucket  
*Lasmigona costata* (Rafinesque)  
fluted-shell  
*Ligumia recta* (Lamarck)  
black sandshell  
*Pleurobema coccineum* (Conrad)  
round pigtoe  
*Potamilus purpuratus* (Lamarck)  
bleufer  
*Ptychobranhus occidentalis* (Conrad)  
Ouachita kidneyshell  
*Quadrula cylindrica* (Say)  
rabbitsfoot  
*Strophitus undulatus* (Say)  
squawfoot  
*Toxolasma lividus* (Rafinesque)  
purple lilliput  
*Tritogonia verrucosa* (Rafinesque)  
pistolgrip  
*Venustaconcha pleasi* (Marsh)  
bleedingtooth mussel  
*Villosa iris* (I. Lea)  
rainbow  
*Villosa lienosa* (Conrad)  
little spectaclecase

Scientific Name  
common name(s)  
(Meek and Clark, 1912)

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*Lampsilis ligamentinus* (LaMarck)  
green mugget, red mugget, grass mugget  
*Alasmidonta truncata* (Wright) ✓  
niggertoe  
*Alasmidonta calceola* (Lea)  
no common name  
*Quadrula undulata* (Barnes)  
rock mussel, washboard  
*Quadrula tuberculata* (Rafinesque)  
red niggerhead  
*Cyprogenia aberti* (Conrad) ✓  
young fantail  
*Unio gibbosus* (Barnes) ✓  
no common name  
*Lampsilis ozarkensis* (Call) ?  
no common name  
*Lampsilis ozarkensis* (Call)  
no common name  
*Lampsilis ventricosus* (Barnes)  
butterfly  
*Lampsilis brevicula brittsi* (Simpson)  
no common name  
*Lampsilis luteolus* (LaMarck) ✓  
no common name  
*Symphynota costata* (Rafinesque) ✓  
sand mussel  
*Lampsilis rectus* (Lamarck) ✓  
spectacle case, black sand shell  
*Quadrula coccinea* (Conrad) ✓  
white niggerhead  
*Lampsilis purpuratus* (Lamarck)  
red shell  
*Unio gibbosus* (Barnes) ? ✓  
no common name  
*Quadrula cylindrica* (Say) ✓  
cob shell, rabbit's foot  
*Strophitus edentulus* (Say)  
no common name  
*Lampsilis glans* (Lea) ✓  
no common name  
*Tritogonia tuberculata* (Barnes)  
fantail  
*Lampsilis venustus* (Lea)  
no common name  
*Lampsilis planicostatus* (Lea)  
no common name  
*Lampsilis leonosus* (Conrad)  
spectaclecase

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## Appendix B

### 1995 Survey Site Field Notes

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 1 Date 20 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombevanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohioensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranhus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>	6		<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>	1	
			<u>V. lienosa</u>		
<u>Simpsonaias</u>					
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. 0.25 mi downstream of AR Hwy 7 xing at Pruitt. Small concentration of live bivalves ( $3^{10}/m^2$ ) behind rock complex and in run adjacent and upstream. Located at downstream end of riffle complex. More dead shells than live. Water 0.5' deep, substrate gravel/sand/silt. J.L. HARRIS, J.T. FLEMING SW 1/4 NE 1/4 SEC 7; T16N; R20W JASPER QUAD.

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR1Date 20 July 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	2		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	1	
<u>Amblema</u> <u>A. plicata</u>	5		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	1	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confracosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	1	
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	2	
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 2 Date 20 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranchus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>	2	
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. 1.0 river mile downstream of AR Hwy 7 xing. Small area of gravelly chert and cobble/slab rock substrate at top (head) of deep pool. Mussels in 3-5m<sup>2</sup> area. 15 minute search. J.L. Harris, J.T. Fleming. JASPER Quad. SE 1/4 SW 1/4 SEC 5; T16 N; R20W.

N 36° 3.774  
W 93° 7.111  
E 7 7.654

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 2 Date 20 July 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	2		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>	3		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	6	
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turqidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Liquimia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 3 Date 20 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>  <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	1   3	2
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. 1.5 river mile downstream  
of AR Hwy 7 xing. A few scattered shells at top of riffle and bottom  
of pool. Area has rock/cobble substrate along bluff shelf. Searched  
approx. 25 minutes. NOT much here. SE 1/4 NW 1/4 Sec 8; T16 N; R20 W.  
HASTY QUAD. J.L. Harris, J.T. Fleming

BR 3 3.447  
BR 3 1.460  
BR 3 1.714/5

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 3Date 20 July 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	/		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	2	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	6	3
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 4 Date 20 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u>		
<u>Pleurobema</u> <u>P. coccineum</u>	4	36	<u>T. parvus</u> <u>T. texasensis</u>		
<u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u>			<u>Truncilla</u> <u>T. donaciformis</u>		
<u>P. ohiensis</u> <u>P. purpuratus</u>			<u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>	1	1	<u>Uniomerus</u> <u>U. declivis</u>		
<u>Quadrula</u> <u>Q. cylindrica</u>			<u>U. tetralasmus</u>		
<u>Q. metanevra</u> <u>Q. nodulata</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u>		
<u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>V. pleasii</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u>		
<u>Strophitus</u> <u>S. undulatus</u>			<u>V. iris</u> <u>V. lienosa</u>		

Notes: AR, NEWTON County. Buffalo River ca. 1.75 river mile downstream of AR Hwy 7 xing. Bivalves in small area approx. 2m wide X 10m long in a side riffle/run off main flow channel. Substrate primarily cobble over bedrock. NW 1/4 SE 1/4 sec 8; T16N; R20W. HASTY QUAD.  
J.L. Harris, J.T. Fleming.

N 36° 3.001

W 7° 7.001

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 4Date 20 July 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	4		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	2	
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	5	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 5 Date 20 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>			<u>Uniomerus</u>		
<u>Ptychobranchus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>	5		<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>	1	
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>	12	2
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. 0.25 river mile upstream of confluence w/ Little Buffalo River. SW 1/4 SE 1/4 SEC 16; T16N; R20W. HASTY QUAD. J.L. Harris, J.T. Fleming. Bivalves at head of riffle and below Justicia bed along left hand descending bank (LHB) - begins where river intercepts bluffline just below intermittent tributary confluence. Substrate cobble/gravel/sand. L. reeveiana and V. iris under slab rock. Water to 1.0m deep.

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 5 Date 20 July 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	9		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u> 1 (?) <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Amblema</u> <u>A. plicata</u>	1		<u>Glebula</u> <u>G. rotundata</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> 6 <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> 11 1 <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u> 1		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	1		<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>	1	1			
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 6 Date 20 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohioensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranhus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>		2
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. 0.25 mile downstream  
of confluence w/ Little Buffalo River. SE 1/4 SW 1/4 SEC 27; T16N; R20W.  
HASTY QUAD. J.L. Harris, J.T. Fleming. Very scattered bivalves in  
riffle/run. Depth to 0.5m, water velocity swift. Looked very good,  
gravel/sand/cobble substrate w/ lots of dead Corbicula.

N 28° S. 305'

W 43° S. 5,402' E 1804'

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 6 Date 20 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	6		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	2	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>		4
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 7 Date 21 July 1995  
 Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchnus</u> <u>P. occidentalis</u>	13	10	<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	6	3
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. 0.75 mile downstream of confluence w/ Rock Creek. NW 1/4 SW 1/4 SEC 35; T16N; R20W. Mt. Judea. QUAD J.L. Harris, J.T. Fleming. Bivalves in shallow (2-3" deep) side channel on DSL - shells scattered. Main channel w/ sand bottom; side channel gravel/sand SIDE CHANNEL 400' long by 3' wide.

51, 1990  
 w 93° 4.661  
 E 1 56 2

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 7 Date 21 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>			<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	5	3
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	19	2
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 8 Date 21 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. 1.0 mile downstream of confluence  
w/ Rock Creek. Bivalves along LHB in area 20m long X 2m wide.  
Water to 1.1m deep with boulders and many large, dead shells.  
NE 1/4 SW 1/4 SEC 35; T16N; R20W. J.L. Harris, J.T. Fleming  
Mt. Judea Quad.

735 54.866  
736 4.397  
746 1/5

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 8 Date 21 July 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	12	many	<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	1	
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 9 Date 21 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		1
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>	3 2		<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		2
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. <sup>0.25</sup> river mile downstream of  
confluence w/ <sup>ELM SPRING Hollow</sup> ~~Rock Creek~~. SE 1/4 NW 1/4 SEC 1; R20W; T15N. Mt. Judea Quad.  
Three habitats include: 1) sand/gravel/cobble area 125m x 3-4m with  
3-10 bivalves/m<sup>2</sup>; 2) cobble/rock substrate area 125m x 2m - shells, ~~then 25m~~  
scattered; ~~then~~ 25m riffle w/ no shells; 3) large pool w/ rock/boulder  
substrate and shells scattered. Area 1 0.6-2m deep; Area 2 1.3-2.0m deep;  
Area 3 1.3-2.3m deep. V. iris in areas 2 & 3; P. coccineum and F. ozarkensis in Area 2  
J.L. Harris, J.T. FLEMING

30° 58.864 W 93° 24.33 E 789\*

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 9 Date 21 July 1996Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	41		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u>	1	
<u>Amblema</u> <u>A. plicata</u>	24	2	<u>F. ozarkensis</u>	2	1
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>F. subrotunda</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. cardium</u>	2	3
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. hydiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. powelli</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. rafinesqueana</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. reeveiana</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. satura</u>		
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>			<u>L. siliquoidea</u>		
			<u>L. streckeri</u>		
			<u>L. teres</u>		
			<u>Lasmigona</u> <u>L. complanata</u>		
			<u>L. costata</u>	4	1
			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 10 Date 21 July 1996

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u>		1
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>T. parvus</u> <u>T. texasensis</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>	5	2	<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		
<u>Strophitus</u> <u>S. undulatus</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		

Notes: AR, NEWTON County. Buffalo River ca. 0.25 river mile upstream of AR Hwy 123 xing at Carver. NE 1/4 NE 1/4 SEC 1; T15N; R20W. Mt. Judea Quad. Bivalves in riffle/run complex ca. 200m long x 4m wide. Water depth to 0.3m substrate cobble (20%); gravel (50%); sand (20%). Water velocity swift. Mussel bed ends at end of riffle/run at downstream end of island. Mussel midden present for fresh dead material. BED along RH side of island.

J.L. Harris, J.T. Fleming

11 35° 59.062

2

11 43° 2.762 6.2742 ft

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 10 Date 21 July 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	24	4	<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u>	3	
<u>Amblema</u> <u>A. plicata</u>	3	1	<u>F. ozarkensis</u>	2	5
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>F. subrotunda</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. cardium</u>	2	
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. hydiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	11	4	<u>L. powelli</u>		
<u>Cyprogenia</u> <u>C. aberti</u>	1	1	<u>L. rafinesqueana</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. reeveiana</u>		1
<u>Elliptio</u> <u>Elliptio dilatata</u>	4	4	<u>L. satura</u>		
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>			<u>L. siliquoidea</u>		
			<u>L. streckeri</u>		
			<u>L. teres</u>		
			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR11 Date 21 July 1995

Quantitative Sample X Qualitative Sample \_\_\_\_\_

Shell Summary \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchus</u> <u>P. occidentalis</u>		68	<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, NEWTON COUNTY. Buffalo River ca. <sup>0.75</sup> ~~1.0~~ river mile downstream of confluence w/ Big Creek. SE 1/4 SE 1/4 SEC 31; T16N; R19W. Mt. Judea Quad. J.L. Harris, J.T. Fleming. Bivalve bed located along primarily right hand side (facing downstream) of beautiful riffle/run complex. Substrate gravel sand, water depth to approx 0.6m. Bed approx. 3m wide x 30m long. Semi-quantitative samples taken (3) at maximum densities along length of bed.

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 11 Date 21 July 1995Quantitative Sample X Qualitative Sample \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	8		<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>	2	
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>	1		<u>Glebula</u> <u>G. rotundata</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>	3	
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	1		<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Cyprogenia</u> <u>C. aberti</u>	2				
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 12 Date 21 July 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X - market mus

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>	10	87	<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		4
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, NEWTON County. Buffalo River ca. 0.3 mi downstream of Hancock Hollow tributary. NE 1/4 SE 1/4 SEC 32; T16N; R19W. Mt. Judea Quad. J.L. Harris, J.T. FLEMING. Very similar to site BR11, riffle w/ gravel/sand, cobb substrate, water depth 0.3-0.6 m. Live mussel density estimated to be 10/m<sup>2</sup>. Large sample of fresh shells from middens along Justicia beds.

N 35° 30.544

W 87° 30.544

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 12 Date 21 July 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X - muskrat midden

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	2		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		2
<u>Amblema</u> <u>A. plicata</u>	1		<u>Glebula</u> <u>G. rotundata</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		1     2     27
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Liquimia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>		1			
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 13 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranhus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>	1	
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>		
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, Searcy County. Buffalo River ca. 1.5 river mile downstream of  
White Ford. NW 1/4 SW 1/4 sec 7; T15N; R17W. Snowball Quad. J.L. Harris,  
J.T. Fleming. A few scattered bivalves in water 1.0-1.6 m deep,  
substrate cobble/sand. Looked good for bivalves but not many found.

N 35° 57.473'  
 W 74° 50.932' 6.603'

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 13 Date 19 August 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	2		<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Cyprogenia</u> <u>C. aberti</u>					
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 14 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u>	2	
<u>Pleurobema</u> <u>P. coccineum</u>			<u>T. parvus</u> <u>T. texasensis</u>		
<u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u>			<u>Truncilla</u> <u>T. donaciformis</u>		
<u>P. ohiensis</u> <u>P. purpuratus</u>			<u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u>		
<u>Quadrula</u> <u>Q. cylindrica</u>			<u>U. tetralasmus</u>		
<u>Q. metanevra</u> <u>Q. nodulata</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u>		
<u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>V. pleasii</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u>		
<u>Strophitus</u> <u>S. undulatus</u>			<u>V. iris</u> <u>V. lienosa</u>		

Notes: AR, SEARCY COUNTY. Buffalo River ca. 1.5 miles upstream of CASH Bend / Red Bluff. SW 1/4 NE 1/4 sec 8; T15 N; R17 W. Bivalves scattered in pool along bluff just upstream of riffle. Substrate cracked rock, water depth 2.0-3.0 m. SNOWBALL QUAD. J.L. Harris, J.T. Fleming.

W 35° 57.731

W 40° 10.000

3/1/95

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 14 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	2		<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Amblema</u> <u>A. plicata</u>	4		<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>	2	
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevisissima</u> <u>L. leptodon</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Cyprogenia</u> <u>C. aberti</u>					
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR15 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohioensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranhus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>	38		<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>	3	
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>	2	
			<u>V. lienosa</u>		
<u>Simpsonaias</u>					
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River ca. 1.3 river mile upstream of CASH BEND/RED BLUFF. NW 1/4 SE 1/4 SEC 8; T15N; R17W. SNOWBALL QUAD. J.L. Harris, J.T. FLEMING. A few bivalves at riffle head along RHB in sand/gravel substrate, water depth 0.3 - 0.6 m deep. More shells from riffle head to 3<sup>rd</sup> riffle complex downstream. Narrow band of shells ca. 1-2m wide, max. density 10-15/m<sup>2</sup>. MOST SHELLS IN WATER 0.2-0.3 m deep.

N 35° 57.015

W 92° 47.015

EJ 31615

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR15 Date 19 August 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	6		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	9	
<u>Amblema</u> <u>A. plicata</u>	2		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	8	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	16	
<u>Cyclonaias</u> <u>C. tuberculata</u>	1		<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turqidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 16 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>	5		<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>	1		<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River ca. 0.75 river mile upstream of CASH BEND/RED BLUFF. NW 1/4 NE 1/4 sec 8; R17W; T15N. SNOWBALL QUAD. J.L. Harris, J.T. FLEMING. Bivalve bed 50 m long X 2 m wide; gravel/cobble substrate w/ sand on top of bedrock. Water depth 0.2 m. Narrow arrow-leaved rooted aquatic vegetation; shells very eroded (old). Two semi-quantitative m<sup>2</sup> samples taken.

m 35' 08, 09 2  
W 40' 48, 02 4 00 00

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 16 Date 19 August 1996Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>			<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u>	<u>5</u>	
<u>Amblema</u> <u>A. plicata</u>	<u>2</u>		<u>F. ozarkensis</u>	<u>2</u>	
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>F. subrotunda</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	<u>5</u>		<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>	<u>3</u>		<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 17 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomorus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	3	
<u>Simpsonaias</u> <u>S. ambigua</u>				6	
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River at CASH BEND / RED BLUFF.  
sw 1/4 NW 1/4 SEC 5; T15N; R17W. J.L. Harris, J.T. FLEMING. Shell bed area  
60m long x 3-5 m wide on bluff side of river. Substrate broken rock/sand  
w/ some boulders, water depth 0.6 - 1.2m. Bivalve max. density estimated  
10-20/m<sup>2</sup>, patchy distribution.

35° 5 X 50

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 17 Date 19 August 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	31		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	1	
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	1	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	29	
<u>Cyclonaias</u> <u>C. tuberculata</u>	43		<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR18 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u>		
<u>Pleurobema</u> <u>P. coccineum</u>			<u>T. parvus</u> <u>T. texasensis</u>		
<u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u>			<u>Truncilla</u> <u>T. donaciformis</u>		
<u>P. ohiensis</u> <u>P. purpuratus</u>			<u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u>		
<u>Quadrula</u> <u>Q. cylindrica</u>			<u>U. tetralasmus</u>		
<u>Q. metanevra</u> <u>Q. nodulata</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u>		
<u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>V. pleasii</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u>		
<u>Strophitus</u> <u>S. undulatus</u>			<u>V. iris</u> <u>V. lienosa</u>		

Notes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 18

Date 19 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>			<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Cyprogenia</u> <u>C. aberti</u>					
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 19 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>	2		<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>	2		<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARCY COUNTY. Buffalo River ca. 1.0 river mile downstream of CASH BEND / RED BLUFF. NW 1/4 NW 1/4 sec 4; R17W; T15N. Snowball Quad. Shell bed starts at head of riffle and ends at bottom of fast riffle - area approx. 50m long X 3-4 m wide. Substrate cobble/gravel/sand, water depth 0.3-0.6 m. J.L. Harris, J.T. Fleming.

75° 58.9  
18.75  
2  
E. J. ...

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 19

Date 19 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	2		<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>	2	
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Amblema</u> <u>A. plicata</u>	17		<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>	4	
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>	1	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	5		<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Cyprogenia</u> <u>C. aberti</u>					
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 20 Date 19 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River at downstream end of Arnold BEND  
NE 1/4 SE 1/4 SEC 33; T16N; R17W. SNOWBALL QUAD. J.L. Harris, J.T. FLEMING  
MANY DEAD SHELLS - DIE OFF / DISTURBANCE? has impacted this bed  
significantly. Substrate cobble/sand.

57,214  
117,211  
1631/18

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 20

Date 19 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	1		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	2	
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevis</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 21 Date 19 August 1995

Quantitative Sample X Qualitative Sample \_\_\_\_\_

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>	1		<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchnus</u> <u>P. occidentalis</u>	2		<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	2	
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River ca. 0.2 river mile upstream  
of confluence w/ Calf Creek. NW 1/4 NE 1/4 SEC 3; T15 N; R17 W  
Snowball Quad. J.L. Harris, J.T. FLEMING. Shell bed ca. 70m long x  
3 m wide - runs from riffle head to top of next riffle. Substrate gravel/  
cobble/sand; water depth 0.3-0.6 m. Ptychobranchnus is common bivalve  
here also. Three m<sup>2</sup> semi-quantitative samples taken.

N 35° 58.771

2

W 92° 46.383

E 1 541 1/4

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 21Date 19 August 1995Quantitative Sample X

Qualitative Sample \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	8		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>	2	
<u>Amblema</u> <u>A. plicata</u>	3		<u>Glebula</u> <u>G. rotundata</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>	5	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>	1	
<u>Arcidens</u> <u>A. confragosus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	5		<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 22 Date 18 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dea
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		X
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranthus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>		
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, SEARcy County. Buffalo River ca. 0.5 river mile upstream of  
US Hwy 65 X-ing. SE 1/4 SE 1/4 sec 35; T16N; R17W. Snowball Quad.  
J.L. Harris, A.J. Harris, C.E. Harris, W.K. Welch. Area of dead shells at  
base of bluff ca 20m long x 4 m wide. OLD DEAD SHELLS.

N 35° 58.905

W 92°

## AR Shell Bed Survey

Shell Summary Data SheetField ID # BR 22Date 18 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>		X	<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>		X	<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 23 Date 18 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dea
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranhus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>		1
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River ca. 1.2 river mile downstream of US Hwy 65 Xing. SW 1/4 NE 1/4 SEC 36; T16N; R17W. Marshall Quad.  
J.L. Harris, A.J. Harris, C.E. Harris, W.K. Welch. OLD shell bed w/ moderate  
not number of dead shells - few live. Substrate big rock, crevasses.  
10 minute snorkel search.

N 35° 57.514

W 02° 44.178

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 23Date 18 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	1	few	<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Amblema</u> <u>A. plicata</u>	4	many	<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Anodontonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Cyprogenia</u> <u>C. aberti</u>					
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 24 Date 18 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>	1	
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohioensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranhus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>		
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, SEARcy County. Buffalo River ca. 1.5 river miles downstream of US Hwy 65 xing. SW 1/4 NE 1/4 SEC 36; T16N; R17W. MARSHALL QUAD. J.L. Harris, A.J. Harris, C.E. Harris, W.K. Welch. Shells begin in sharp bend w/ deep hole (3m) and then run along LHB for ca. 100m x 4-5m wide. Most SHELLS AT downstream end - estimated density 5-10/m<sup>2</sup> maximum. Substrate large rock, cobble, gravel/sand. Water depth at downstream end 0.6-1.0 m.

11 35' 59.363 2  
10 22 44.474 EJ 609

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 24

Date 18 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	4++		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	2	
<u>Amblema</u> <u>A. plicata</u>	6++		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	2+	
<u>Cyclonaias</u> <u>C. tuberculata</u>	4++		<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Liquimia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 25 Date 18 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>	1				
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>	1	
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranchus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>	1	
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>		
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River at Gilbert access. NE 1/4 SE 1/4 SEC 31; R16W; T16 N. MARSHALL Quad. J.L. Harris, A.J. Harris, C.E. Harris, W.K. Welch  
Shell bed begins at top of bend upstream of gravel bar access; substrate sand, water velocity slow. Bed continues along RHB before diminishing at lower end of gravel bar. Bed follows thalweg and is 4-5 wide on upstream end, ca. 1.0 m wide on downstream end. Gravel/sand substrate predominant, some cobble and rock. MAX. shell density 5-10/m<sup>2</sup>; Avg. density 2-3/m<sup>2</sup>. Bed ca. 400m long - max water depth 2-3 m. most shells in ca. 1.0 m water.

N 35° 59.076  
W 72° 43.503  
E 1623

## AR Shell Bed Survey

Shell Summary Data SheetField ID # BR 25Date 18 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	16		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	2	
<u>Amblema</u> <u>A. plicata</u>	28		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>	6	
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	14		<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>	2		<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	3	
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 26 Date 20 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARcy County. Buffalo River at confluence w/ Brush Creek.  
NE 1/4 SW 1/4 SEC 28; T16N; R17W. MARSHALL QUAD. J.L. Harris, J.T. FLEMING.  
Many dead shells, riffle type shells are common dead (rabbits foot, w. fanshell)  
SAND from creek appears to be culprit - 0.3 - 0.6m deep. BED area estimated  
to be 50m long x 2m deep.

N 35° E 7.80  
11582  
 2

## AR Shell Bed Survey

Shell Summary Data SheetField ID # BR 26Date 20 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	6		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Amblema</u> <u>A. plicata</u>	22		<u>Glebula</u> <u>G. rotundata</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	1		<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 27 Date 20 August 1995

Quantitative Sample X Qualitative Sample \_\_\_\_\_

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchnus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River ca. 0.5 river mile downstream of  
confluence w/ Brush Creek. SE 1/4 NE 1/4 SEC 28; T16N; R16W. MAUMEE QUAD.  
J.L. Harris, J.T. Fleming. Shell bed ca. 70m X 4m, substrate cobble  
overlain w/ SAND and rooted aquatic vegetation. Water depth 0.2-1.0 m ±,  
current velocity slow. Bed along RHB at head of bend.

N 36° 0.339  
W 108° 10.997 E 1 618.5

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 27Date 20 August 1995Quantitative Sample X

Qualitative Sample \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	13		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>	6		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	1	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	3		<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	1	
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 28

Date 20 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohioensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
<u>Ptychobranchus</u>			<u>Uniomerus</u>		
<u>P. occidentalis</u>			<u>U. declivis</u>		
			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>		
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, Searcy County. Buffalo River at confluence w/ Ezell Hollow  
tributary. SE 1/4 SE 1/4 sec 22; T16N; R16W. Maumee Quad. J.L. Harris,  
J.T. Fleming. Scattered mussels in big rock, water 2.0m deep. Moderate  
number of dead mussels and three ridges

N 36' 0.664'  
W 92' 29.646'  
E 1581/8

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 28Date 20 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	4	X	<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Amblema</u> <u>A. plicata</u>	1	X	<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Cyprogenia</u> <u>C. aberti</u>					
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turqidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 29 Date 20 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchnus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		1
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, Searcy County. Buffalo River ca. 1.5 upstream of Maumee Crossing. NE 1/4 NW 1/4 SEC 19; T16N; R15W. CO2A HOME QUAD. J.L. Harris, J.T. Fleming. Shells found 300-400m upstream of bluff, bed ca 25m long x 2m wide. Sand/gravel substrate, very shallow (0.1-0.2 m) - shells along RHB. River otter (?) preying on medium size Actinonaias and L. cardium - several fresh dead, broken shells found in river.

N 36° 1.233

W 36° 37.209

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 29Date 20 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	3	6	<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u>		1
<u>Amblema</u> <u>A. plicata</u>	26	5	<u>F. ozarkensis</u>		2
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>F. subrotunda</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. cardium</u>	1	2
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. hydiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. powelli</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. rafinesqueana</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. reeveiana</u>		1
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. satura</u>		
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>			<u>L. siliquoidea</u>		
			<u>L. streckeri</u>		
			<u>L. teres</u>		
			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 30 Date 20 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchus</u> <u>P. occidentalis</u>			<u>Uniomereus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARcy County. Buffalo River ca. 1.0 river mile upstream of  
Maumee Crossing. SE 1/4 SE 1/4 sec 13; T16N; R16W. MAUMEE Quad.  
J.L. Harris, J.T. Fleming. Shells in 1.0-1.5 m deep water with boulder  
and rock substrate. Area ca. 30m long along L4B. L. reeveiana found  
in adjacent riffle.

N 36° 1.580

W 72° 37.567

2

E 1 59645

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 30 Date 20 August 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	15		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Amblema</u> <u>A. plicata</u>	30		<u>Glebula</u> <u>G. rotundata</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> 6 <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 31

Date 20 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample \_\_\_\_\_

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranhus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>		
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 31Date 20 August 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>			<u>Fusconaia</u> <u>F. ebena</u>		
			<u>F. flava</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. ozarkensis</u>		
<u>A. viridis</u>			<u>F. subrotunda</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. imbecillis</u>			<u>L. cardium</u>		
<u>A. suborbiculata</u>			<u>L. hydiana</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. powelli</u>		
			<u>L. rafinesqueana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. reeveiana</u>		
			<u>L. satura</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. siliquoidea</u>		
			<u>L. streckeri</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. teres</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Lasmigona</u> <u>L. complanata</u>		
			<u>L. costata</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. leptodon</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>E. triquetra</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>E. turgidula</u>			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 32 Date 30 September 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u> <u>1</u>	<u>1</u>				
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>	<u>1</u>	
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranhus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>	<u>10</u>	
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, Searcy County. Buffalo River ca. 0.5 river mile downstream of Maumee Crossing. SW 1/4 SEC 12; T16N; R16W. Maumee Quad. J.L. Harris, J.T. Fleming. Shell bed along LHB in area 15-20m long x 5m wide; water depth 0.2-1.0m deep; substrate boulder, rock, cobble. Many shells under slabrock (ca. 10/m<sup>2</sup> max. density). L. reeveiana have been prey item for river otter(?).

N 36° 2.482

W 12° 26.170

31512

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 32Date 30 September 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	23		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	4	1
<u>Amblema</u> <u>A. plicata</u>	2		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	1	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	1	1
<u>Cyclonaias</u> <u>C. tuberculata</u>	3	1	<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>		1	<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	8	
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 33 Date 30 September 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohioensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
<u>Ptychobranhus</u>			<u>Uniomerus</u>		
<u>P. occidentalis</u>			<u>U. declivis</u>		
			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>	2	
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, Searcy County. Buffalo River ca. 2.0 river mile upstream of Spring Creek. NE 1/4 SW 1/4 SEC 18; T16N; R15W. Cozahoma Quad. J.L. Harris, J.T. FLEMING. FEW scattered shells in 0.6-1.0m deep run below riffle choked w/ trailing aquatic vegetation. 15 minute search.

N 36' 1.732

W 22' 3.118 E 152' 2

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 33Date 30 September 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	3		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	2	
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>		
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 34 Date 30 September 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X - muskrat

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>  <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>				X	4
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, Searcy County. Buffalo River ca. 1.0 river mile upstream of  
confluence w/ Spring Creek. NE 1/4 NE 1/4 SEC 20; R15W; T16N. COZAHOME QUAD.  
J.L. Harris, J.T. Fleming. Substrate rock, boulder, gravel/sand along RHS.  
many dead Corbicula - a few live V. iris and L. reeveiana present.  
Muskrat midden shells collected.

N 36° 1.310

W 92° 36.45

E 1.519

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 34Date 30 September 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X - muskrat

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>			<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> X / <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Cyprogenia</u> <u>C. aberti</u>					
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 35

Date 30 September 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchus</u> <u>P. occidentalis</u>			<u>Unio</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	1	
<u>Simpsonaias</u> <u>S. ambigua</u>				2	
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, SEARCY County. Buffalo River ca. 2.0 river mile downstream of  
confluence w/ Spring Creek. SW 1/4 SE 1/4 sec 8; T16N; R15W. Small bed area  
in water ca. 1.0 m deep, very rocky and rugged - few flat, slabrocks. 20 minute  
visual inspection.

436 0.325

2

W 92° 35.800

E 1 418

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 35Date 30 September 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	10		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	2	
<u>Amblema</u> <u>A. plicata</u>	2		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	1	
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>	1		<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	2	1
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 36 Date 1 October 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dea
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>	1	1 (?)	<u>T. texasensis</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>	2		<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		
<u>Strophitus</u> <u>S. undulatus</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	1	1

Notes: AR, MARION County. Buffalo River ca. 0.5 river mile downstream  
of confluence w/ Panther Creek. SE 1/4 SW 1/4 SEC 26; T17 N; R15 W.  
Cozahoma QUAD. J.L. Harris, J.T. Fleming. Bivalves in water 0.3-1.3 m  
deep; substrate large boulders; some in edge of gravel.

N 36° 4.953

N 36° 32.854

EP 442 A

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 36

Date 1 October 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	125		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>			<u>F. flava</u> <u>F. ozarkensis</u> <u>F. subrotunda</u>		1
<u>Amblema</u> <u>A. plicata</u>	11	1	<u>Glebula</u> <u>G. rotundata</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u> <u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		2
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>	1	
<u>Arcidens</u> <u>A. confragosus</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>	2		<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>					
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 37 Date 1 October 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u>			<u>Toxolasma</u>		
<u>P. dombeyanus</u>			<u>T. lividus</u>		
			<u>T. parvus</u>		
<u>Pleurobema</u>			<u>T. texasensis</u>		
<u>P. coccineum</u>					
<u>P. cordatum</u>			<u>Tritogonia</u>		
<u>P. pyramidatum</u>			<u>T. verrucosa</u>		
<u>Potamilus</u>			<u>Truncilla</u>		
<u>P. alatus</u>			<u>T. donaciformis</u>		
<u>P. ohiensis</u>			<u>T. truncata</u>		
<u>P. purpuratus</u>					
			<u>Uniomerus</u>		
<u>Ptychobranchnus</u>			<u>U. declivis</u>		
<u>P. occidentalis</u>			<u>U. tetralasmus</u>		
<u>Quadrula</u>			<u>Venustaconcha</u>		
<u>Q. cylindrica</u>			<u>V. ellipsiformis</u>		
<u>Q. metanevra</u>			<u>V. pleasii</u>		
<u>Q. nodulata</u>					
<u>Q. pustulosa</u>			<u>Villosa</u>		
<u>Q. quadrula</u>			<u>V. arkansasensis</u>		
			<u>V. iris</u>	2	
<u>Simpsonaias</u>			<u>V. lienosa</u>		
<u>S. ambigua</u>					
<u>Strophitus</u>					
<u>S. undulatus</u>					

Notes: AR, Marion County, Buffalo River at confluence w/ Jones Hollow  
tributary: SW 1/4 NW 1/4 sec 24; T17N; R15W. Cozahoma Quad. §  
J.L. Harris, J.T. Fleming. Bivalve bed ca. 40m long X 2m wide, densities  
< 1m<sup>2</sup>. Substrate broken boulders, cobble - water depth 0.3-0.6 m. ~~§~~

N 36' 6.035

W 92' 32.140

EJ 478A

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 37Date 1 October 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	34		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>	1		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lamosilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	6	
<u>Cyclonaias</u> <u>C. tuberculata</u>	4		<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>	1		<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	5	1
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 38 Date 1 October 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>	2	1	<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchnus</u> <u>P. occidentalis</u>			<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u> <u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	1	1
<u>Simpsonaias</u> <u>S. ambigua</u>					
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, MARION County. Buffalo River immediately upstream of confluence w/ Clabber Creek. NE 1/4 SW 1/4 sec 11; T17N; R15W. REA VALLEY QUAD. J.L. Harris, J.T. Fleming. Shell bed ca. 100m x 2m along LHB in water 1-2m deep. Substrate silt, sand/gravel. Bivalves sparsely distributed.

N 36° 7.626

W 12 32.733

EJ471

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 38Date 1 October 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	41		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>	12		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>	1	
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	2	
<u>Cyclonaias</u> <u>C. tuberculata</u>	2		<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	2	
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 39 Date 1 October 1995

Quantitative Sample X Qualitative Sample \_\_\_\_\_

Shell Summary \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>	2		<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohiensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranhus</u> <u>P. occidentalis</u>	2		<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	1	
<u>Strophitus</u> <u>S. undulatus</u>	1				

Notes: AR, MARION County. Buffalo River ca. 0.5 river mile downstream of  
confluence w/ Cabin Creek. NW 1/4 SE 1/4 sec 12; T17 N; R15 W.

REA VALLEY QUAD. J.L. Harris, J.T. Fleming. Shell bed in area 35 m long X  
3-10 m wide; 0.3-0.6 m deep, substrate sand/gravel - some rock.  
Corbicula common, great bivalve habitat.

N 36 7.660

W 31 345

E 1 481 X

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 39

Date 1 October 1995

Quantitative Sample X

Qualitative Sample ~~X~~

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	17		<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>	2	
<u>Amblema</u> <u>A. plicata</u>	2		<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>	3	
<u>Cyclonaias</u> <u>C. tuberculata</u>	1		<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>	1		<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>			<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	3	
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

ARKANSAS MUSSEL SPECIES LIST

Shell Summary Data Sheet

Field ID# BR 40 Date 2 October 1995

Quantitative Sample \_\_\_\_\_ Qualitative Sample X

Shell Summary \_\_\_\_\_

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>	1	
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranchus</u> <u>P. occidentalis</u>	1		<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>	2	Severa
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, MARION County, Buffalo River ca. 0.3 river mile downstream of  
confluence w/ Lonely Hollow tributary. SE 1/4 SE 1/4 SEC 18; T17N; R14W.  
Cozahome QUAD. J.L. Harris, J.T. Fleming. Shells in very rugged  
boulder/slab run, 0.3-1.0m deep, 200 m long x 4-5 m wide. Many  
dead Actinonaias - some fresh cracked. Not many live shells.

AR Shell Bed Survey

Shell Summary Data Sheet

Field ID # BR 40

Date 2 October 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>	1	many (otter?)	<u>Fusconaia</u> <u>F. ebena</u>		
<u>Alasmidonta</u> <u>A. marginata</u>			<u>F. flava</u>		
<u>A. viridis</u>			<u>F. ozarkensis</u>		
<u>Amblema</u> <u>A. plicata</u>			<u>F. subrotunda</u>		
<u>Anodonta</u> <u>A. grandis</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>A. imbecillis</u>			<u>Lampsilis</u> <u>L. abrupta</u>		
<u>A. suborbiculata</u>			<u>L. cardium</u>		
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. hydiana</u>		
<u>Arcidens</u> <u>A. confragosus</u>			<u>L. powelli</u>		
<u>Arkansia</u> <u>A. wheeleri</u>			<u>L. rafinesqueana</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>L. reeveiana</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>			<u>L. satura</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>L. siliquoidea</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>L. streckeri</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>	2	Several (otter?)	<u>L. teres</u>		
<u>Epioblasma</u> <u>E. florentina</u>			<u>Lasmigona</u> <u>L. complanata</u>		
<u>E. triquetra</u>			<u>L. costata</u>	3	
<u>E. turgidula</u>			<u>Leptodea</u> <u>L. fragilis</u>		
			<u>L. laevissima</u>		
			<u>L. leptodon</u>		
			<u>Ligumia</u> <u>L. recta</u>		
			<u>L. subrostrata</u>		
			<u>Megalonaias</u> <u>M. nervosa</u>		
			<u>Obliquaria</u> <u>O. reflexa</u>		
			<u>Obovaria</u> <u>O. jacksoniana</u>		
			<u>O. olivaria</u>		

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID# BR 41 Date 2 October 1995Quantitative Sample \_\_\_\_\_ Qualitative Sample X - midden

## Shell Summary

Species	Live	Dead	Species	Live	Dead
<u>Plectomerus</u> <u>P. dombeyanus</u>			<u>Toxolasma</u> <u>T. lividus</u> <u>T. parvus</u> <u>T. texasensis</u>		
<u>Pleurobema</u> <u>P. coccineum</u> <u>P. cordatum</u> <u>P. pyramidatum</u>			<u>Tritogonia</u> <u>T. verrucosa</u>		
<u>Potamilus</u> <u>P. alatus</u> <u>P. ohioensis</u> <u>P. purpuratus</u>			<u>Truncilla</u> <u>T. donaciformis</u> <u>T. truncata</u>		
<u>Ptychobranthus</u> <u>P. occidentalis</u>		53	<u>Uniomerus</u> <u>U. declivis</u> <u>U. tetralasmus</u>		
<u>Quadrula</u> <u>Q. cylindrica</u> <u>Q. metanevra</u> <u>Q. nodulata</u> <u>Q. pustulosa</u> <u>Q. quadrula</u>			<u>Venustaconcha</u> <u>V. ellipsiformis</u> <u>V. pleasii</u>		2
<u>Simpsonaias</u> <u>S. ambigua</u>			<u>Villosa</u> <u>V. arkansasensis</u> <u>V. iris</u> <u>V. lienosa</u>		3
<u>Strophitus</u> <u>S. undulatus</u>					

Notes: AR, MARION County. Buffalo River ca. 0.5 river mile downstream of confluence w/ Leatherwood Creek. NW 1/4 SE 1/4 sec 14; T17N; R14W.

Big Flat Quad. J.L. Harris, J.T. FLEMING. Large muskrat middens - appear to be 1-2 yrs old - few appear to be this year. Rugged cracked rock, boulder run 0.3-1.3 m deep. Very swift current. Shells scattered all along RHB, not many live shells found.

N 36° 6.787

2

W 92° 25.967

E 1959

## AR Shell Bed Survey

## Shell Summary Data Sheet

Field ID # BR 41Date 2 October 1995

Quantitative Sample \_\_\_\_\_

Qualitative Sample X - midden

Species	Live	Dead	Species	Live	Dead
<u>Actinonaias</u> <u>A. ligamentina</u>		6	<u>Fusconaia</u> <u>F. ebena</u> <u>F. flava</u>		
<u>Alasmidonta</u> <u>A. marginata</u> <u>A. viridis</u>		1	<u>F. ozarkensis</u> <u>F. subrotunda</u>		7
<u>Amblema</u> <u>A. plicata</u>			<u>Glebula</u> <u>G. rotundata</u>		
<u>Anodonta</u> <u>A. grandis</u> <u>A. imbecillis</u> <u>A. suborbiculata</u>			<u>Lampsilis</u> <u>L. abrupta</u> <u>L. cardium</u> <u>L. hydiana</u> <u>L. powelli</u> <u>L. rafinesqueana</u>		2
<u>Anadontoides</u> <u>A. ferussacianus</u>			<u>L. reeveiana</u> <u>L. satura</u> <u>L. siliquoidea</u> <u>L. streckeri</u> <u>L. teres</u>		47
<u>Arcidens</u> <u>A. confragosus</u>			<u>Lasmigona</u> <u>L. complanata</u> <u>L. costata</u>		10, 14
<u>Arkansia</u> <u>A. wheeleri</u>			<u>Leptodea</u> <u>L. fragilis</u> <u>L. laevissima</u> <u>L. leptodon</u>		
<u>Cumberlandia</u> <u>C. monodonta</u>			<u>Ligumia</u> <u>L. recta</u> <u>L. subrostrata</u>		
<u>Cyclonaias</u> <u>C. tuberculata</u>		1	<u>Megalonaias</u> <u>M. nervosa</u>		
<u>Cyprogenia</u> <u>C. aberti</u>			<u>Obliquaria</u> <u>O. reflexa</u>		
<u>Ellipsaria</u> <u>E. lineolata</u>			<u>Obovaria</u> <u>O. jacksoniana</u> <u>O. olivaria</u>		
<u>Elliptio</u> <u>Elliptio dilatata</u>					
<u>Epioblasma</u> <u>E. florentina</u> <u>E. triquetra</u> <u>E. turgidula</u>					

## Appendix C

### Mussels of the Buffalo River Drainage, Arkansas

Native Unionid Bivalves (Mollusca: Unionidae)  
of the Buffalo River Drainage, Arkansas

Species (Scientific Name)	Common Name
<i>Actinonaias ligamentina</i>	mucket
<i>Alasmidonta marginata</i>	elktoe
<i>Alasmidonta viridis</i>	slippershell
<i>Amblema plicata</i>	threeridge
<i>Cyclonaias tuberculata</i>	purple wartyback
<i>Cyprogenia aberti</i>	western fanshell
<i>Elliptio dilatata</i>	spike
<i>Fusconaia flava</i>	Wabash pigtoe
<i>Fusconaia ozarkensis</i>	Ozark pigtoe
<i>Lampsilis cardium</i>	plain pocketbook
<i>Lampsilis reeveiana</i>	Arkansas broken-ray
<i>Lampsilis siliquoidea</i>	fatmucket
<i>Lasmigona costata</i>	fluted-shell
<i>Ligumia recta</i>	black sandshell
<i>Ligumia subrostrata</i>	pondmussel
<i>Pleurobema coccineum</i>	round pigtoe
<i>Potamilus purpuratus</i>	bleufer
<i>Ptychobranhus occidentalis</i>	Ouachita kidneyshell
<i>Quadrula cylindrica</i>	rabbitsfoot
<i>Quadrula pustulosa</i>	pimpleback
<i>Strophitus undulatus</i>	squawfoot
<i>Toxolasma lividus</i>	purple lilliput
<i>Toxolasma parvus</i>	lilliput
<i>Tritogonia verrucosa</i>	pistolgrip
<i>Venustaconcha pleasi</i>	bleedingtooth mussel
<i>Villosa iris</i>	rainbow
<i>Villosa lienosa</i>	little spectaclecase