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Regulatory Docket File

MONTHLY REPORT OF FISH IMPINGEMENT
AT
ARKANSAS NUCLEAR ONE - UNIT ONE

~~Revised With Data~~ 9-30-76

During August, fish impingement monitoring followed the normal sampling regime.

Samples were taken twice weekly at the end of a 24 hour period when the cooling water system was in operation.

Average reservoir water temperature as recorded by the inlet water box monitor was 81.7°F ranging from 79-83°F. Fish impingement continued to be characterized by relatively low biomass per sample and diverse species composition. No single species dominated the sample biomass for the month, although Freshwater Drum did make up 53% of the biomass during the first week.

Numerically, the samples were dominated by Freshwater Drum, Gizzard Shad and Threadfin Shad, although neither species dominated consistently.

It is interesting to note that this collection includes the first Fathead Minnow captured in Lake Dardanelle as far as we are able to ascertain. Since the species is used as fishing bait in the area and we have no knowledge of its being stocked in the lake, it is probably a member of a feral group.



HELPING BUILD ARKANSAS

Regulatory Docket File

ARKANSAS POWER & LIGHT COMPANY

9TH & LOUISIANA STREETS • LITTLE ROCK, ARKANSAS 72203 • (501) 372-4311

September 30, 1976

Director of Nuclear Reactor Regulation
ATTN: Mr. D. L. Ziemann, Chief
Operating Reactor Branch #2
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555



Subject: Arkansas Power & Light Company
Arkansas Nuclear One-Unit 1
Docket No. 50-313
License No. DPR-51
Intake Impingement Data

Gentlemen:

Attached are the results of impingement monitoring at the intake of Arkansas Nuclear One-Unit 1 during the month of August 1976. This is being submitted per Environmental Technical Specification 4.1.2.a(2).

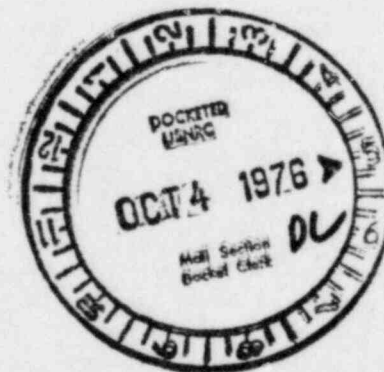
Very truly yours,

Donald A. Rueter

Donald A. Rueter
Manager, Licensing

DAR:DHW:ay

Attachment



10030



ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-11-76 CONTINUED:

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT(LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH(MM)	MODAL LENGTH(MM)	#	%	MODAL WEIGHT(GR)	#	%
GIZZARD SHAD	0.42	140.	215	30 TC	60	19	73%	0 TO	5 25 96%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 09-06-76		INLET WATERBOX		NUMBER OF CIRCULATING		24 HOUR TOTAL		24 HOUR TOTAL *		18.7 LBS	
INCLUSIVE TIME		OF SAMPLE: 24 HRS		PUMPS IN OPERATION: 4		SAMPLE COUNT: 2285		SAMPLE WEIGHT:			
TEMPERATURE: 82 F		AIR CURTAIN		STATUS: OFF							
SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	#	MODAL WEIGHT (GR)	#	#		
FRESHWATER DRUM	9.44	1084.	264	60 TO 90	21	60*	0 TO 5	29	83*		
GIZZARD SHAD	0.77	28.	231	30 TO 60	16	57*	0 TO 5	22	79*		
THREADFIN SHAD	2.88	1064.	135	30 TO 60	29	83*	0 TO 5	33	94*		
WHITE CRAPPIE	0.38	23.	215	30 TO 60	17	74*	0 TO 5	21	91*		
LARGemouth BASS	0.01	1.	9	60 TO 90	1	100*	0 TO 5	1	100*		
BLUEGILL SUNFISH	1.33	14.	1010	150 TO 180	5	36*	0 TO 5	3	21*		
SKIPJACK HERRING	0.07	4.	112	90 TO 120	4	100*	5 TO 10	4	100*		
MISSISSIPPI SILVERSIDE	0.06	7.	127	30 TO 60	2	29*	0 TO 5	4	57*		
LONGNOSE GAR	0.02	1.	215	210 TO 240	1	100*	10 TO 15	1	100*		
STRIPED BASS	0.07	5.	125	60 TO 90	4	80*	0 TO 5	4	80*		
WHITE BASS	0.63	26.	151	60 TO 90	10	38*	0 TO 5	11	42*		
BLUE CATFISH	1.84	8.	297	210 TO 240	4	50*	100 TO 105	2	25*		
CHANNEL CATFISH	1.17	20.	225	120 TO 150	5	45*	20 TO 25	6	30*		

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-03-75 INCLUSIVE TIME OF SAMPLE: 24 HRS		INLET WATERBOX TEMPERATURE: 82 F		AIR CURTAIN STATUS: OFF		NUMBER OF CIRCULATING PUMPS IN OPERATION: 4		24 HOUR TOTAL SAMPLE COUNT:		4006		24 HOUR TOTAL SAMPLE WEIGHT:		21.0 LBS	
SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	#	MODAL WEIGHT (GR)	#	#	#	#	#	#	#	#
FRESHWATER DRUM	11.31	1968.	167	30 TO	60	23	52	0 TO	5	42	95				
BLUE CATFISH	0.44	2.	252	210 TO	240	1	50	85 TO	90	1	50				
SKIPJACK HERRING	0.07	6.	122	90 TO	120	4	67	0 TO	5	5	83				
WHITE CRAPPIE	0.19	17.	165	30 TO	60	15	88	0 TO	5	15	88				
STRIPED BASS	0.02	2.	87	60 TO	90	2	10	0 TO	5	2	100				
WHITE BASS	0.52	29.	136	60 TO	90	12	41	0 TO	5	15	52				
LONGEAR SUNFISH	0.25	4.	143	120 TO	150	3	75	0 TO	5	2	50				
GREEN SUNFISH	0.15	1.	150	120 TO	150	1	100	65 TO	70	1	100				
LARGEMOUTH BASS	0.06	1.	105	120 TO	150	1	100	25 TO	30	1	100				
BLUEGILL SUNFISH	0.97	11.	182	30 TO	60	3	27	0 TO	5	3	27				
GIZZARD SHAD	2.31	391.	213	30 TO	60	14	50	0 TO	5	26	93				
THREEDFIN SHAD	3.88	1560.	150	30 TO	60	35	88	0 TO	5	39	97				
CHANNEL CATFISH	0.84	14.	235	120 TO	150	5	36	10 TO	15	3	21				

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-20-76		INLET WATERBOX		AIR CURTAIN		NUMBER OF CIRCULATING		24 HOUR TOTAL		24 HOUR TOTAL *	
INCLUSIVE TIME		TEMPERATURE: 82 F		STATUS: OFF		PUMPS IN OPERATION: 4		SAMPLE COUNT: 906		SAMPLE WEIGHT: 15.9 LBS	
OF SAMPLE: 24 HRS											
SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	%	MODAL WEIGHT (GR)	#	%		
BLUEGILL SUNFISH	0.65	11.	166	30 TO 60	6	55%	0 TO 5	6	55%		
LARGEMOUTH BASS	4.44	1.	535	510 TO 540	1	100%	2010 TO 2015	1	100%		
LONGEAR SUNFISH	0.16	1.	146	120 TO 150	1	100%	70 TO 75	1	100%		
WHITE CRAPPIE	0.52	10.	232	30 TO 60	6	60%	0 TO 5	7	70%		
SKIPJACK HERRING	0.24	6.	172	120 TO 150	3	50%	10 TO 15	3	50%		
GOLDEN SHINER	0.01	1.	75	60 TO 90	1	100%	0 TO 5	1	100%		
MISSISSIPPI SILVERSIDE	0.02	2.	119	60 TO 90	1	50%	0 TO 5	1	50%		
EMERALD SHINER	0.01	1.	37	30 TO 60	1	100%	0 TO 5	1	100%		
FRESHWATER DRUM	0.88	42.	237	60 TO 90	17	65%	0 TO 5	23	88%		
WHITE BASS	1.56	49.	275	60 TO 90	13	50%	0 TO 5	12	46%		
FLATHEAD CATFISH	0.03	1.	139	120 TO 150	1	100%	10 TO 15	1	100%		
CHANNEL CATFISH	3.25	15.	484	120 TO 150	7	47%	15 TO 20	4	27%		
THREAFIN SHAD	2.13	585.	155	30 TO 60	16	53%	0 TO 5	25	83%		

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ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-17-76

INCLUSIVE TIME
OF SAMPLE: 24 HRS

INLET WATERBOX
TEMPERATURE: 83 F

AIR CURTAIN
STATUS: OFF

NUMBER OF CIRCULATING
PUMPS IN OPERATION: 4

24 HOUR TOTAL
SAMPLE COUNT: 986

24 HOUR TOTAL *
SAMPLE WEIGHT: 7.0 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	%	MODAL WEIGHT (GR)	#	%
FRESHWATER DRUM	1.19	125.	169	60 TO 90	17	65%	0 TO 5	20	77%
GIZZARD SHAD	2.56	602.	227	30 TO 60	18	58%	0 TO 5	30	97%
MISSISSIPPI SILVERSIDE	0.02	4.	75	60 TO 90	4	100%	0 TO 5	4	100%
GOLDEN SHINER	0.02	3.	70	60 TO 90	2	67%	0 TO 5	3	100%
GREEN SUNFISH	0.01	2.	47	30 TO 60	2	100%	0 TO 5	2	100%
SKIP JACK HERCING	0.06	2.	132	120 TO 150	2	100%	10 TO 15	2	100%
WHITE CRAPPIE	0.39	7.	208	60 TO 90	3	43%	0 TO 5	5	71%
BLUEGILL SUNFISH	0.99	17.	190	30 TO 60	10	59%	0 TO 5	10	59%
BLUE CATFISH	0.01	1.	82	60 TO 90	1	100%	0 TO 5	1	100%
WHITE BASS	0.75	42.	145	60 TO 90	15	58%	0 TO 5	15	58%
STRIPED BASS	0.03	1.	111	90 TO 120	1	100%	10 TO 15	1	100%
CHANNEL CATFISH	0.36	8.	230	30 TO 60	2	25%	0 TO 5	3	38%
THREADFIN SHAD	0.63	172.	88	30 TO 60	18	69%	0 TO 5	25	96%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 09-13-76		INLET WATERBOX		SPECIES 24 HR TOTAL COUNT	NUMBER OF CIRCULATING PUMPS IN OPERATION: 2		24 HOUR TOTAL		24 HOUR TOTAL *	
INCLUSIVE TIME	OF SAMPLE: 24 HRS	TEMPERATURE: 83 F	AIR CURTAIN STATUS: OFF		SAMPLE COUNT:		204		SAMPLE WEIGHT:	
SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	#	#	MODAL WEIGHT (GR)	#	#	3.3 LBS
THREADFIN SHAD	0.19	85	30 TC 60	21	81%	0 TO 5	26	100%		
GIZZARD SHAD	0.24	214	60 TC 90	9	47%	0 TO 5	17	89%		
FRESHWATER DRUM	0.53	158	60 TC 90	10	59%	0 TO 5	14	82%		
RIVER SHINER	0.04	123	120 TC 150	1	100%	15 TO 20	1	100%		
MISSISSIPPI SILVERSIDE	0.14	95	60 TC 90	17	65%	0 TO 5	26	100%		
CHANNEL CATFISH	0.58	196	120 TC 150	9	64%	15 TO 20	5	36%		
BLACK BULLHEAD	0.01	81	60 TC 90	1	100%	0 TO 5	1	100%		
STRIPED BASS	0.05	114	90 TC 120	2	100%	5 TO 10	1	50%		
WHITE BASS	0.44	141	60 TC 90	10	53%	0 TO 5	7	37%		
BLUEGILL SUNFISH	0.92	170	30 TC 60	14	67%	0 TO 5	14	67%		
LONGEAR SUNFISH	0.11	127	120 TC 150	1	100%	45 TO 50	1	100%		
ORANGESPOTTED SUNFISH	0.02	68	30 TC 60	1	50%	0 TO 5	2	100%		

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEHPIS ACCUMULATION.

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 09-11-76

INCLUSIVE TIME

OF SAMPLE: 24 HRS

INLET WATERBOX

TEMPERATURE: 81 F

AIR CURTAIN
STATUS: OFF

NUMBER OF CIRCULATING
PUMPS IN OPERATION: 2

24 HOUR TOTAL
SAMPLE COUNT:

359

24 HOUR TOTAL *
SAMPLE WEIGHT:

10.9 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	%	MODAL WEIGHT (GR)	#	%
THREADFIN SHAD	0.06	25.	71	30 TO 60	22	88%	0 TO 5	25	100%
BLUEGILL SUNFISH	4.63	90.	185	30 TO 60	9	35%	0 TO 5	10	38%
WHITE CRAPPIE	2.44	14.	265	150 TO 180	5	36%	0 TO 5	2	14%
BLACK CRAPPIE	0.20	1.	193	180 TO 210	1	100%	90 TO 95	1	100%
LARGEMOUTH BASS	0.05	1.	126	120 TO 150	1	100%	20 TO 25	1	100%
WARMOUTH	0.13	2.	124	90 TO 120	1	50%	20 TO 25	1	50%
LONGEAR SUNFISH	0.21	4.	128	30 TO 60	2	50%	0 TO 5	2	50%
WHITE BASS	0.27	18.	130	60 TO 90	12	67%	0 TO 5	11	61%
STRIPED BASS	0.01	1.	68	60 TO 90	1	100%	0 TO 5	1	100%
MISSISSIPPI SILVERSIDE	0.02	4.	102	60 TO 90	2	50%	0 TO 5	4	100%
CHANNEL CATFISH	0.84	16.	237	120 TO 150	6	38%	20 TO 25	4	25%
FLATHEAD CATFISH	0.07	11.	107	60 TO 90	6	55%	0 TO 5	9	82%
FRESHWATER DRUM	1.51	32.	315	60 TO 90	18	56%	0 TO 5	24	75%

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ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-31-76

INCLUSIVE TIME INLET WATERBOX AIR CURTAIN NUMBER OF CIRCULATING 24 HOUR TOTAL 24 HOUR TOTAL *
OF SAMPLE: 24 HRS TEMPERATURE: 74 F STATUS: OFF PUMPS IN OPERATION: 4 SAMPLE COUNT: 534 SAMPLE WEIGHT: 8.7 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT(LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH(MM)	MODAL LENGTH(MM)	#	%	MODAL WEIGHT(GR)	#	%
FRESHWATER DRUM	0.94	60.	197	60 TO 90	17	65%	0 TO 5	23	88%
STRIPED BASS	0.02	2.	97	60 TO 90	1	50%	0 TO 5	1	50%
LARGEMOUTH BASS	0.03	1.	110	90 TO 120	1	100%	10 TO 15	1	100%
BLUEGILL SUNFISH	0.10	5.	123	30 TO 60	4	80%	0 TO 5	4	80%
MISSISSIPPI SILVERSIDE	0.01	1.	62	60 TO 90	1	100%	0 TO 5	1	100%
GOLDEN SHINER	0.01	1.	59	30 TO 60	1	100%	0 TO 5	1	100%
SKIPJACK HERRING	0.36	7.	190	150 TO 180	4	57%	5 TO 10	2	29%
WHITE CRAPPIE	0.50	7.	214	30 TO 60	3	43%	0 TO 5	4	57%
CHANNEL CATFISH	0.69	10.	220	120 TO 150	3	30%	0 TO 5	2	20%
BLUE CATFISH	0.07	2.	167	120 TO 150	1	50%	15 TO 20	2	100%
WHITE BASS	2.50	53.	256	90 TO 120	12	46%	5 TO 10	7	27%
GIZZARD SHAD	2.19	106.	256	30 TO 60	10	38%	0 TO 5	20	77%
FATHEAD MINNOW	0.01	1.	72	60 TO 90	1	100%	0 TO 5	1	100%

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ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-24-76		INLET WATERBOX		AIR CURTAIN		NUMBER OF CIRCULATING		24 HOUR TOTAL		24 HOUR TOTAL *	
INCLUSIVE TIME		TEMPERATURE: 80 F		STATUS: OFF		PUMPS IN OPERATION: 2		SAMPLE COUNT: 205		SAMPLE WEIGHT: 7.1 LBS	
OF SAMPLE: 24 HRS											
SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	#	MODAL WEIGHT (GR)	#	#		
FRESHWATER DRUM	1.74	25.	361	60 TO 90	10	40%	0 TO 5	18	72%		
BLUEGILL SUNFISH	0.86	5.	182	150 TO 180	2	40%	95 TO 100	2	40%		
SKIPJACK HERRING	0.22	4.	166	150 TO 180	4	100%	15 TO 20	1	25%		
GREEN SUNFISH	0.01	2.	57	30 TO 60	2	100%	0 TO 5	2	100%		
MISSISSIPPI SILVERSIDE	0.01	3.	74	60 TO 90	2	67%	0 TO 5	3	100%		
GOLDEN SHINER	0.01	1.	79	60 TO 90	1	100%	0 TO 5	1	100%		
WHITE CRAPPIE	1.75	3.	358	60 TO 90	1	33%	0 TO 5	1	33%		
WHITE BASS	1.25	29.	299	60 TO 90	15	52%	0 TO 5	15	52%		
FLATHEAD CATFISH	0.02	3.	97	60 TO 90	2	67%	0 TO 5	2	67%		
CHANNEL CATFISH	0.29	5.	237	120 TO 150	3	60%	10 TO 15	2	40%		
STRIPED BASS	0.04	2.	119	90 TO 120	2	100%	5 TO 10	1	50%		
THREADFIN SHAD	0.20	49.	92	30 TO 60	19	73%	0 TO 5	25	96%		
GIZZARD SHAD	0.75	74.	225	30 TO 60	13	50%	0 TO 5	25	96%		

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-27-76

INCLUSIVE TIME INLET WATERBOX AIR CURTAIN NUMBER OF CIRCULATING 24 HOUR TOTAL 24 HOUR TOTAL *
OF SAMPLE: 24 HRS TEMPERATURE: 83 F STATUS: OFF PUMPS IN OPERATION: 2 SAMPLE COUNT: 56 SAMPLE WEIGHT: 4.1 LBS

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT(LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH(MM)	MODAL LENGTH(MM)	#	%	MODAL WEIGHT (GR)	#	%
GIZZARD SHAD	1.05	11.	248	210 TO 240	4	36%	0 TO 5	6	55%
THREADFIN SHAD	0.09	8.	122	60 TO 90	5	63%	0 TO 5	6	75%
FRESHWATER DRUM	0.86	9.	326	60 TO 90	5	56%	0 TO 5	6	67%
STRIPED BASS	0.04	2.	127	60 TO 90	1	50%	0 TO 5	1	50%
BLUEGILL SUNFISH	0.01	2.	56	30 TO 60	2	100%	0 TO 5	2	100%
GREEN SUNFISH	0.01	1.	54	30 TO 60	1	100%	0 TO 5	1	100%
WHITE CRAPPIE	0.61	2.	224	210 TO 240	2	100%	130 TO 135	1	50%
MISSISSIPPI SILVERSIDE	0.01	3.	74	60 TO 90	3	100%	0 TO 5	3	100%
WHITE BASS	0.75	14.	249	90 TO 120	7	50%	5 TO 10	7	50%
CHANNEL CATFISH	0.65	4.	297	120 TO 150	1	25%	25 TO 30	1	25%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-20-76 CONTINUED:

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT (LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH (MM)	MODAL LENGTH (MM)	#	%	MODAL WEIGHT (GR)	#	%
GIZZARD SHAD	2.06	181.	238	60 TO 90	15	58%	0 TO 5	24	92%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.

ARKANSAS POWER & LIGHT COMPANY
AND SCREEN MONITORING

RUN DATE: 09/23/76

SAMPLE TAKEN: 08-31-76 CONTINUED:

SPECIES NAME	SPECIES 24 HR TOTAL WEIGHT(LBS)	SPECIES 24 HR TOTAL COUNT	MAXIMUM LENGTH(MM)	MODAL LENGTH(MM)	#	%	MODAL WEIGHT(GR)	#	%
THREADFIN SHAD	1.25	278*	104	30 TO 60	18	64%	0 TO 5	26	93%

* TOTAL SAMPLE WT. INCLUDES 0.0 LBS OF DEBRIS ACCUMULATION.