Site: A.L. Taylor 17.8
Break:
Other:

Eugene F. Mooney
Secretary

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COMMONWEALTH OF KENTUCKY
DEPARTMENT FOR NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY
CENTURY PLAZA
1065 U.S. 127 BYPASS SOUTH
FRANKFORT, KENTUCKY 40601

TO: Paul Frey
EPA Region IV
Ecology Branch
Athens, GA 30601

FROM: Robert W. Logan RWL
Environmental Supervisor
Ky. Division of Water Quality

DATE: May 24, 1979

SUBJECT: Fish Tissue Collection and Analysis in the Valley of the Drums Area

Attached are station locations, a map of the locations and species list of the fishes collected from streams in the "Valley of the Drums" area. The fish tissue collections have been completed, any additional collections will depend on the analyses presently being performed by the EPA Region IV laboratory. The samples were delivered to the Region IV, Athens laboratory on Tuesday, May 15, 1979. Additional information on sample analysis may be obtained from Bill Loy. If you have any questions, please contact Bob Logan at (502) 564-7885.

RWL:bjm

Attachment

10949081

U.S. EPA REGION IV

SDMS

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V. 2-040506

Fish Collection Locations

Valley of Drums Fish Survey

Stations			
#1	Wilson Creek	Mile 2.8	
#2	Wilson Creek	Mile 1.2	
#3	Northern Ditch	Mile 19.3	
#4	Southern Ditch	Mile 0.6 - 1.0	Above Wilson Creek
#5	Pond Creek	Mile 7.8	Below Wilson Creek
#6	Bee Lick	Mile 1.7	
#7	Bee Lick Creek	Mile 0.6 - 0.7	
#8	Mouth of Pond Creek	Mile 1.5	

Polyodontidae	*Polyodon spathula*
Esocidae	*Esox americanus vermiculatus*
Cyprinidae	*Carassius auratus* *Campostoma anomalum* *Notropis atherinoides* *Notropis chrysocephalus* *Phoxinus erythrogaster* *Pimephales notatus* *Pimephales promelas* *Semotilus atromaculatus*
Catostomidae	*Catostomus commersoni* *Carpiodes carpio* *Ictiobus bubalus*
Ictaluridae	*Ictalurus melas*
Poeciliidae	*Gambusia affinis*
Centrarchidae	*Lepomis cyanellus* *Lepomis gulosus* *Lepomis macrochirus*
Percidae	*Etheostoma nigrum*
Sciaenidae	*Aplodinotus grunniens*

	1	2	3	4	5	6	7	8
Polyodontidae								
Polyodon spathula								2
Esocidae								
Esox americanus vermiculatus		1						
Cyprinidae								
Campostoma anomalum	1						3	
Carassius auratus					2			
Notropis atherinoides					28			
Notropis chrysocephalus			3			1	3	
Phoxinus erythrogaster	1	1				8	6	
Pimephales notatus	6	7					1	
Pimephales promelas		1	4	5	1			
Semotilus atromaculatus	26	61	3			105	65	
Catostomidae								
Carpiodes carpio								2
Catostomus commersoni		6				5	9	
Ictiobus bubalus								1
Ictaluridae								
Ictalurus melas		1			2			
Poeciliidae								
Gambusia affinis			12		2			
Centrarchidae								
Lepomis cyanellus		9	3	9	23	3		
Lepomis gulosus			3					
Lepomis macrochirus		4	7	1	7			
Percidae								
Etheostoma nigrum	2							
Sciaenidae								
Aplodinotus grunniens								1
Total	36	91	35	15				
Simpson $D = 1 - 1/s$	.80	.89	.86	.67				
Shanon-Wiener $Hi = -\Sigma pi \log pi$	.896	1.755	1.780	.853				
Equitibility $J = Hi/Hmax$	.557	.805	.932	.777				

FISH SPECIES LIST

STATION NO. 1 DATE April 10, 1979 TIME

STREAM Wilson Creek COUNTY Jefferson LOCATION Mile 2.8

TYPE OF AREA SAMPLED Riffle and Pool

COLLECTED BY Central Biological Staff METHOD Backpack Shocker

FAMILY	GENUS&SPECIES	NUMBER COLLECTED
Cyprinidae	Phoxinus erythrogaster	1
	Campostoma anomalum	1
	Pimephales notatus	6
	*Semotilus atromaculatus	26
Percidae	Etheostoma nigrum	2

*Sent to EPA for tissue analysis

FISH SPECIES LIST

STATION NO. 2 DATE April 19, 1979 TIME 1:00pm

STREAM Wilson Creek COUNTY Jefferson LOCATION Fairdale

Road Bridge Area, mile 1.2 - 1.3

TYPE OF AREA SAMPLED Riffle and Pool

COLLECTED BY Central Biological Staff METHOD Backpack Shocker

FAMILY	GENUS&SPECIES	NUMBER COLLECTED	
Esocidae	Esox americanus vermiculatus (LeSueur)	1	80.6 g. 24.5 cm.
Catostomidae	Catostomus commersoni	6	
Cyprinidae	*Semotilus atromaculatus	61	
	Phoxinus erythrogaster	1	
	Pimephales notatus	7	
	Pimephales promelas	1	
Ictaluridae	*Ictalurus melas	1	50.5 g. 16.5 cm.
Centrarchidae	*Lepomis cyanellus	9	
	*Lepomis macrochirus	4	

*Sent to EPA lab for analysis

FISH SPECIES LIST

STATION NO. 3 DATE April 16-17, 1979 TIME

STREAM Northern Ditch COUNTY Jefferson LOCATION National Turnpike Bridge, mile point 19.3

TYPE OF AREA SAMPLED Run

COLLECTED BY Central Biological Staff METHOD Backpack Shocker

FAMILY	GENUS&SPECIES	NUMBER COLLECTED		
Cyprinidae	Notropis sp.	3	16 April	
	Pimephales promelas	3	16 April	
	Pimephales promelas	1	17 April	
	Semotilus atromaculatus	3	16 April	
Poeciliidae	Gambusia affinis	12	16 April	
Centrarchidae	Lepomis gulosus	1	16 April	10 cm. 17 g.
	Lepomis gulosus	2	17 April	12.5 cm. 10.5 cm.
	Lepomis cyanellus	3	17 April	
	Lepomis macrochirus	5	16 April	
	Lepomis macrochirus	2	17 April	

FISH SPECIES LIST

STATION NO. 4 DATE April 16-17, 1979 TIME

STREAM Southern Ditch COUNTY Jefferson LOCATION Above mouth of Wilson Creek to National Turnpike Bridge Mile point 0.6 - 1.0

TYPE OF AREA SAMPLED Run

COLLECTED BY Central Biological Staff METHOD Backpack Shocker

FAMILY	GENUS & SPECIES	NUMBER COLLECTED	
Cyprinidae	Pimephales promelas	3	16 April
	Pimephales promelas	2	17 April
Centrarchidae	Lepomis cyanellus	9	17 April
	Lepomis macrochirus	1	16 April

FISH SPECIES LIST

STATION NO. 5 DATE April 18, 1979 TIME 1:00pm

STREAM Pond Creek COUNTY Jefferson LOCATION Blevins Gap Road Bridge, mile point 7.8 - 7.9

TYPE OF AREA SAMPLED Riffle and Pool

COLLECTED BY Central Biological Staff METHOD Electro (Backpack)

FAMILY	GENUS&SPECIES	NUMBER COLLECTED
Cyprinidae	Pimephales promelas	1
	Carassius auratus	2
	Notropis atherinoides	28
Ictaluridae	Ictalurus melas	2
Poeciliidae	Gambusia affinis	2
Centrarchidae	Lepomis macrochirus	7
	Lepomis cyanellus	23

FISH SPECIES LIST

STATION NO. 6 DATE May 1, 1979 TIME 2:00pm

STREAM Bee Lick COUNTY Jefferson LOCATION Allen Lane Bridge

Mile point 1.7

TYPE OF AREA SAMPLED Pool and Riffle

COLLECTED BY Central Biological Staff METHOD BackPack, Electrofishing

FAMILY	GENUS&SPECIES	NUMBER COLLECTED	
Cyprinidae	*Semotilus atromaculatus	105	(517.7g)
	Phoxinus erythrogaster	8	
	Notropis chrysocephalus	1	
Catostomidae	*Catostomus commersoni	5	(269g)
Centrarchidae	*Lepomis cyanellus	3	(22.5g)

*Sent to EPA for tissue analysis

FISH SPECIES LIST

STATION NO. 7 DATE May 1, 1979 TIME 1:00pm

STREAM Bee Lick Creek COUNTY Jefferson LOCATION New Cut Road Bridge; mile point 0.6 - 0.7

TYPE OF AREA SAMPLED Pool

COLLECTED BY Central Biological Staff METHOD Electrofishing , Backpack

FAMILY	GENUS&SPECIES	NUMBER COLLECTED	
Cyprinidae	*Semotilus atromaculatus	65	(701g)
	Phoxinus erythrogaster	6	
	Notropis crysocephalus	3	
Catostomidae	*Catostomus commersoni	9	(232g)
Cyprinidae	Campostoma anomalum	3	
	Pimephales notatus	1	

*Sent to EPA for tissue analysis

FISH SPECIES LIST

STATION NO. 8 DATE May 9, 1979 TIME

STREAM Pond Creek COUNTY Jefferson LOCATION Mile point 1.5

TYPE OF AREA SAMPLED Run

COLLECTED BY Central Biological Staff METHOD Hoop Net

FAMILY	GENUS&SPECIES	NUMBER COLLECTED	
Polyodontidae	*Polyodon spathula	2	84 c.m. 1.4 kg 74 c.m. 964 g
	*Carpiodes carpio	2	38 c.m. 625 g 41 c.m. 795 g
	*Ictiobus bubalus	1	44 c.m. 1248 g
Sciaenidae	*Aplodinotus grunniens	1	58 c.m. 2.38 g

One each
*Sent to EPA for tissue analysis