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**INVENTORY AND CLASSIFICATION OF STREAMS  
IN THE LICKING RIVER DRAINAGE**

**Department of Fish and Wildlife Resources**

**Minor Clark, Commissioner**



INVENTORY AND CLASSIFICATION OF STREAMS  
IN THE LICKING RIVER DRAINAGE

*by*

Albert R. Jones

*Principal Fishery Biologist*

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## ABSTRACT

*Streams of fishery importance in the Licking River Drainage were listed and classified on the basis of stream order. Some of the physical, chemical and biological characteristics of the streams are described as well as the general characteristics of the fishery.*

*The Licking River Drainage includes approximately 1,418 miles of stream capable of providing a sport fishery. Ten streams (328 miles) were considered to be of outstanding quality while approximately 116 miles (8%) have been degraded by pollution. Siltation is the primary form of stream degradation in the Licking River Drainage. Sewage pollution has been detrimental to the fish population in two streams in the drainage.*

*A grand total of 92 species of fishes representing 15 families were identified from the Licking River Drainage. The bluntnose minnow was the most abundant species while only one specimen of each of the following species was recorded: quillback, carpsucker, longnose gar, southern redbelly dace, slenderhead darter, gilt darter, river redhorse and Carolina madtom.*

## INTRODUCTION

The increased competition for water usage in Kentucky has created a growing concern for the future of streams and stream fishing. Each year Kentucky loses many miles of stream, which are of significant value to the fishery resource, due to pollution, impoundments and the withdrawal of excessive amounts of water for agricultural use at critical times of the year.

The objectives of this study were to provide a check list of the streams which are of fishery importance and to determine the existing physical, chemical and biological characteristics of the more important streams.

The information obtained from this survey will constitute the background of reference material required for effective management of fish populations in the various streams of the Licking River Drainage. In addition, these data will contribute to the protection of the existing habitat as the competition for water usage intensifies.

## DESCRIPTION OF THE LICKING RIVER DRAINAGE

The Licking River Drainage comprises 3,707 square miles or about 10 percent of the entire state, and encompasses all or a portion of 21 counties. The Licking River rises in the southeastern section of Magoffin County and flows northwest to join the Ohio River at Covington, Kentucky. The major axis of the watershed is about 135 linear miles; however, due to the meandering of the stream, the actual river distance is approximately 310 miles.

The principal tributaries to the Licking River are: Grassy Creek, which has a drainage area of 120 square miles; South Fork of the Licking River, 927 square miles; North Fork of the Licking River, 308 square miles; Fox Creek, 117 square miles; Slate Creek, 230 square miles; Triplett Creek, 187 square miles; and North Fork Creek, 100 square miles.

The southeastern third of the drainage is located in the Mountains and Knobs Area. Much of this part of the watershed is very rough and deeply dissected with narrow ridge tops, steep slopes and narrow valleys.

The Outer Bluegrass Area comprises about 25 percent of the watershed and the topography of this region is undulating to broadly rolling. The divides, which are broad, long and smooth, merge gradually into valleys.

The Eden Hills Area comprises about 30 percent of the watershed. The topography of this area is highly dissected by a dendritic drainage system and is characterized by V-shaped valleys and narrow ridges.

The Inner Bluegrass Area encompasses most of the watershed of the South Fork Licking River (approximately 12 percent of the watershed). This area is a broad, undulating plain, marked in places with depressions and sinks.

## PROCEDURES

A list of the streams of fishery importance in the Licking River Drainage was compiled by interviewing each conservation officer in the drainage and by reviewing files of the Kentucky Division of Fisheries. These streams were then classified on the basis of stream order by working from U. S. Geological Survey topography maps which were scaled 1:24,000. The stream order method of classification is based on branching (Horton, R. E., 1945). The headwater streams are classified as Order I and the union of two such streams forms an Order II stream. Whenever two streams of equal order join they form a stream of the next highest order.

Project personnel inspected the streams which were considered to be of fishery importance and selected sampling areas on the basis of stream order, access, and anticipated changes in habitat. An effort was made to locate one sampling area within each designated order of the more important fishing streams. The streams of lesser importance were sampled one time, usually within the section designated as their highest order. Some streams of minor importance were not sampled, but were described and included in the listing.

### Chemical Characteristics

The following chemical characteristics were determined at each sampling area: dissolved oxygen was determined by the Modified Winkler Method; total alkalinity was determined by using brom cresol-green, methyl-red as an indicator and titrating with 0.02N sulfuric acid; the hydrogen-ion concentration was determined using a portable electric meter.

### Physical Characteristics

The following physical characteristics were determined at each study area: stream transparency or turbidity was measured in inches with a secchi

disk; the surface water temperature and air temperature was determined with a pocket-type alcohol thermometer; stream velocity was determined by floating a partially submerged object through a 100 foot section of stream three times and taking an average of the time the float required to traverse this distance in feet per second; the characteristic bottom type of each study area was recorded; and volume of flow was determined from the formula:

$$V = wdfc$$

where V = volume of flow

w = the average width

d = the average depth

f = the velocity in feet per second

c = co-efficient of roughness (0.9 smooth bottom; 0.8 rough bottom).

### Biological Characteristics

The following biological characteristics were recorded at each sampling area: the fish population composition; the dominant forms of aquatic vegetation; the macrobenthos was recorded merely by inspecting the riffles and listing the dominate forms observed.

The fish population composition of most sampling areas was determined by using emulsifiable rotenone. Cresol or NaCN was used on some small cold-water streams while gill nets were used on the larger rivers when the use of chemicals was not feasible. When chemicals were used for sampling, small mesh nets were stretched across the width of the stream at each end of the sampling area. Rotenone and NaCN were applied to the sampling areas at a concentration of 1.0 ppm while cresol was used at a concentration of one quart per second foot. Potassium permanganate was used to oxidize the rotenone and eliminate downstream fish kills. This was accomplished by applying an amount of permanganate equal to twice the strength of rotenone to the stream immediately below the lower block net and by distributing the same amount of permanganate through the sampling area upon completion of the study. Fishes

were recovered with dip nets and the easily identified species were then grouped as fingerling, intermediate or harvestable and weighed on the site. Small fishes as well as questionable larger specimens were preserved in 10 percent formalin and subsequently identified in the laboratory.

Most fish population samples were considered qualitative due to the small size of the sampling areas. When quantitative samples were obtained the standing crop was computed on a per-acre basis.

Previous stream studies conducted by the Kentucky Division of Fisheries were used where applicable.

## FINDINGS

### Stream Order

All streams of fishery importance were of Order III or greater. This does not mean that the Order I or II streams were not significant to the fishery but merely that they were too small to support a population of sport fishes. Many of the Order III streams were also too small to support a population of sport fishes however a few of them do support a sport fishery in short sections.

Twenty two of the streams of fishery importance were classified as Order IV. These are the principal tributaries to the major rivers in the drainage and they range up to 38 miles in length. Some of the more important Order IV streams are Townsend Creek in Harrison County; South Fork Grassy Creek, Pendleton County; Mill Creek, Harrison County; Fleming Creek, Fleming County; and the two streams, Raven Creek and Craney Creek, which are not being stocked with trout.

The Order V streams range up to 72 miles in length and generally support a considerable sport fishery. Some of the important Order V streams are Blackwater Creek in Morgan County; Hinkston Creek, Stoner Creek and Strode



Creek in Bourbon County; North Fork of Triplett Creek in Rowan County; and Slate Creek in Montgomery and Bath counties.

The highest order tributary streams in the Licking River Drainage are Order VI. These include Triplett Creek, Rowan County; North Fork Licking River and South Fork Licking River. The Licking River is an Order VII stream from the mouth of Triplett Creek downstream to the Ohio River.

#### Distribution of Fishing Streams by County

The drainage encompasses all or a portion of 20 counties and includes approximately 1,418 miles of stream capable of providing a sport fishery (Table 1). There are four counties which have fishable waters exceeding 100 miles in length; Harrison County has 149 miles of streams which are capable of supporting a sport fishery; Morgan County, 132 miles; Pendleton County, 125 miles; and Bourbon County, 118 miles.

Ten streams (328 miles) in the Licking River Drainage were considered to be of outstanding quality on the basis of fishing potential, water quality and/or uniqueness (Table 2).

#### Pollution

Of approximately 1,418 miles of streams in the drainage about 116 miles (8%) have been degraded by pollution (Table 3).

The primary form of stream degradation in the Licking River Drainage is siltation resulting from poor farming practices, such as stream bank alteration and the failure to use cover crops. This type of pollution occurs throughout the drainage however the two watersheds with the worst silt problem are the Middle Fork Licking River and North Fork Licking River.

Sewage pollution has been detrimental to the fish population in at least two streams in the drainage. The South Fork of Triplett Creek, Rowan County, is polluted by sewage for approximately seven miles while the fish fauna of

Table 1. Lineal miles of fishing streams by county.

County	Miles
Nicholas	71.9
Harrison	148.7
Magoffin	97.7
Morgan	131.7
Rowan	69.3
Menifee	24.4
Bath	96.2
Montgomery	68.7
Fleming	97.1
Bourbon	117.8
Clark	29.1
Pendleton	125.4
Grant	22.9
Robertson	45.7
Bracken	37.1
Campbell	26.5
Kenton	65.2
Mason	58.7
Lewis	6.8
<b>TOTAL</b>	<b>1340.9</b>

Table 2. The highest quality streams in the drainage.

Stream	Miles	County
Blackwater Creek	15	Morgan
Beaver Creek	17	Menifee
North Fork Triplett Creek	22	Rowan
Hinkston Creek	48	Montgomery-Bourbon
Stoner Creek	69	Clark-Bourbon
Strode Creek	20	Clark-Bourbon
South Fork Licking River	64	Bourbon-Pendleton
Beaver Creek	15	Harrison
Townsend Creek	8	Bourbon-Harrison
Grassy Creek	50	Grant-Pendleton

Table 3. Fishing streams which have been significantly degraded by pollution.

Stream	County	Stream miles polluted	Type pollution
Middle Fork Licking River	Magoffin	8	siltation
North Fork Licking River	Lewis-Pendleton	82	siltation
South Fork Triplett	Rowan	7	sewage
Hinkston Creek	Montgomery	19	sewage

Hinkston Creek in Montgomery County is adversely affected by sewage pollution for approximately 19 miles below Mt. Sterling.

#### Access

In the headwater sections of this drainage, generally the roads follow the course of streams through narrow valleys thereby providing good access. In the central and lower sections of the drainage there is an increase in the number of roads which transverse the streams.

There are sections on the Licking River which provide good float fishing, however there are very few places on this stream where a boat can be launched without carrying it over the bank. Launching ramps are needed in at least five locations on the Main Licking from Cave Run Dam to the mouth.

#### Fish Populations

A grand total of 92 species of fishes representing 15 families were identified from the Licking River Drainage (Table 4).

The bluntnose minnow was the most frequently recorded (occurred in 87% of the samples) and most abundant species in the combined sample. Other species which occurred in more than 65% of the studies include the longear sunfish, common shiner, bluegill and fantail darter. Spotted bass was the

Table 4. List of fishes collected from the Licking River Drainage.

PETROMYZONTIDAE	
<i>Lampetra aepyptera</i> (Abbott)	Least brook lamprey
LEPISOSTEIDAE	
<i>Lepisosteus osseus</i> (Linnaeus)	Longnose gar
CLUPEIDAE	
* <i>Alosa chrysochloris</i> (Rafinesque)	Skipjack herring
<i>Dorosoma cepedianum</i> (LeSueur)	Gizzard shad
SALMONIDAE	
* <i>Salmo gairdneri</i> Richardson	Rainbow trout
HIODONTIDAE	
<i>Hiodon tergisus</i> LeSueur	Mooneye
ESOCIDAE	
<i>Esox americanus vermiculatus</i> LeSueur	Grass pickerel
* <i>Esox masquinongy ohioensis</i> Kirtland	Ohio muskellunge
CYPRINIDAE	
<i>Campostoma anomalum</i> (Rafinesque)	Stoneroller
<i>Carassius auratus</i> (Linnaeus)	Goldfish
<i>Chrosomus erythrogaster</i> (Rafinesque)	Southern redbelly dace
<i>Cyprinus carpio</i> Linnaeus	Carp
<i>Ericymba buccata</i> Cope	Silverjaw minnow
* <i>Hybopsis amblops</i> (Rafinesque)	Bigeye chub
<i>Hybopsis biguttata</i> (Kirtland)	Hornyhead chub
<i>Hybopsis micropogon</i> (Cope)	River chub
* <i>Hybopsis storeriana</i> (Kirtland)	Silver chub
<i>Notropis ardens</i> (Cope)	Rosefin shiner
<i>Notropis atherinoides</i> Rafinesque	Emerald shiner
* <i>Notropis blennioides</i> (Girard)	River shiner
<i>Notropis boops</i> Gilbert	Bigeye shiner
<i>Notropis cornutus</i> (Mitchill)	Common shiner
<i>Notropis photogenis</i> (Cope)	Silver shiner
<i>Notropis rubellus</i> (Agassiz)	Rosyface shiner
* <i>Notropis spilopterus</i> (Cope)	Spotfin shiner
* <i>Notropis stramineus</i> (Cope)	Sand shiner
<i>Notropis umbratilis</i> (Girard)	Redfin shiner
<i>Notropis volucellus</i> (Cope)	Mimic shiner
<i>Notropis whipplei</i> (Girard)	Steelcolor shiner
<i>Phenacobius mirabilis</i> (Girard)	Suckermouth minnow
<i>Pimephales notatus</i> (Rafinesque)	Bluntnose minnow
* <i>Pimephales promelas</i> Rafinesque	Fathead minnow
* <i>Pimephales vigilax</i> (Baird and Girard)	Bullhead minnow
<i>Rhinichthys atratulus</i> (Hermann)	Blacknose dace
<i>Semotilus atromaculatus</i> (Mitchill)	Creek chub



Table 4. (continued)

## CATOSTOMIDAE

<i>Carpiodes carpio</i> (Rafinesque)	River carpsucker
<i>Carpiodes cyprinus</i> (LeSueur)	Quillback
* <i>Carpiodes velifer</i> (Rafinesque)	Highfin carpsucker
<i>Catostomus commersoni</i> (Lacépède)	White sucker
<i>Cycleptus elongatus</i> (LeSueur)	Blue sucker
<i>Hypentelium nigricans</i> (LeSueur)	Northern hog sucker
<i>Ictiobus bubalus</i> (Rafinesque)	Smallmouth buffalo
* <i>Ictiobus cyprinellus</i> (Valenciennes)	Bigmouth buffalo
<i>Minytrema melanops</i> (Rafinesque)	Spotted sucker
* <i>Moxostoma anisurum</i> (Rafinesque)	Silver redhorse
<i>Moxostoma breviceps</i> (Cope)	Shorthead redhorse
* <i>Moxostoma carinatum</i> (Cope)	River redhorse
<i>Moxostoma duquesnei</i> (LeSueur)	Black redhorse
<i>Moxostoma erythrurum</i> (Rafinesque)	Golden redhorse

## ICTALURIDAE

<i>Ictalurus melas</i> (Rafinesque)	Black bullhead
<i>Ictalurus natalis</i> (LeSueur)	Yellow bullhead
<i>Ictalurus nebulosus</i> (LeSueur)	Brown bullhead
<i>Ictalurus punctatus</i> (Rafinesque)	Channel catfish
<i>Noturus exilis</i> Nelson	Slender madtom
<i>Noturus flavus</i> Rafinesque	Stonecat
<i>Noturus furiosus</i> Jordan and Meek	Carolina madtom
<i>Noturus miurus</i> Jordan	Brindled madtom
<i>Noturus</i> sp.	Madtom sp.
<i>Pylodictis olivaris</i> (Rafinesque)	Flathead catfish

## POECILIIDAE

<i>Gambusia affinis</i> (Baird and Girard)	Mosquitofish
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## CENTRARCHIDAE

<i>Ambloplites rupestris</i> (Rafinesque)	Rock bass
<i>Chaenobryttus gulosus</i> (Cuvier)	Warmouth
<i>Lepomis cyanellus</i> Rafinesque	Green sunfish
<i>Lepomis humilis</i> (Girard)	Orangespotted sunfish
<i>Lepomis macrochirus</i> Rafinesque	Bluegill
<i>Lepomis megalotis</i> (Rafinesque)	Longear sunfish
<i>Lepomis microlophus</i> (Günther)	Redear sunfish
<i>Lepomis</i> sp. x sp.	Hybrid sunfish
<i>Micropterus dolomieu</i> Lacépède	Smallmouth bass
<i>Micropterus punctulatus</i> (Rafinesque)	Spotted bass
<i>Micropterus salmoides</i> (Lacépède)	Largemouth bass
<i>Pomoxis annularis</i> Rafinesque	White crappie
<i>Pomoxis nigromaculatus</i> (LeSueur)	Black crappie

## PERCIDAE

* <i>Ammocrypta pellucida</i> (Baird)	Eastern sand darter
<i>Etheostoma blennioides</i> Rafinesque	Greenside darter
<i>Etheostoma caeruleum</i> Storer	Rainbow darter
<i>Etheostoma flabellare</i> Rafinesque	Fantail darter

Table 4. (continued)

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PERCIDAE (continued)	
<i>Etheostoma nigrum</i> Rafinesque	Johnny darter
<i>Etheostoma spectabile</i> (Agassiz)	Orangethroat darter
* <i>Etheostoma stigmaeum</i> (Jordan)	Speckled darter
<i>Etheostoma variatum</i> Kirtland	Variegated darter
<i>Etheostoma zonale</i> (Cope)	Banded darter
<i>Percina caprodes</i> (Rafinesque)	Logperch
<i>Percina copelandi</i> (Jordan)	Channel darter
<i>Percina evides</i> (Jordan and Copeland)	Gilt darter
* <i>Percina macrocephala</i> (Cope)	Longhead darter
<i>Percina maculata</i> (Girard)	Blackside darter
<i>Percina phoxocephala</i> (Nelson)	Slenderhead darter
* <i>Percina shumardi</i> (Girard)	River darter
* <i>Stizostedion canadense</i> (Smith)	Sauger
SCIAENIDAE	
<i>Aplodinotus grunniens</i> Rafinesque	Freshwater drum
COTTIDAE	
<i>Cottus bairdi</i> Girard	Mottled scuplin
ATHERINIDAE	
<i>Labidesthes sicculus</i> (Cope)	Brook silverside

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\* Species collected by F-31 personnel during 1967-1969 from the Licking River Drainage and not collected on this project.

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most frequently recorded (occurred in 52% of the samples) and most abundant game species taken during these studies. Only one specimen of each of the following species was recorded: quillback carpsucker, longnose gar, southern redbelly dace, slenderhead darter, gilt darter, river redhorse and Carolina madtom. Species which were recorded only once included: smallmouth buffalo, least brook lamprey, hornyhead chub, emerald shiner, slenderhead darter, gilt darter, channel darter, orangespotted sunfish and blue sucker (Table 5).

#### Trout Streams

There are two streams in the Licking River Drainage which are now being stocked with trout. The Kentucky Department of Fish and Wildlife Resources

Table 5. Total number of each species of fish collected on Licking River Drainage during 1969.

Species	Number of fish	Number of studies in which species were taken
Largemouth bass	72	19
Spotted bass	277	36
Smallmouth bass	80	10
Rock bass	290	26
Warmouth	330	9
Longear sunfish	3,067	50
Bluegill	853	44
Green sunfish	877	40
Redear sunfish	34	4
Hybrid sunfish	28	7
Orangespotted sunfish	2	1
White crappie	89	10
Black crappie	6	2
Grass pickerel	9	6
Logperch	177	27
Channel catfish	49	9
Flathead catfish	4	2
Yellow bullhead	126	18
Black bullhead	28	3
Brown bullhead	48	3
Stone cat	45	11
<i>Noturus</i> sp.	64	7
Slender madtom	6	2
Carolina madtom	1	1
Brindled madtom	2	2
Drum	3	2
Golden redbhorse	191	29
Black redbhorse	15	3
River redbhorse	1	1
Shorthead redbhorse	8	4
Hog sucker	124	19
Blue sucker	4	1
White sucker	553	31
Spotted sucker	75	16
Carp	146	8
River carpsucker	3	1
Quillback carpsucker	1	2
Gizzard shad	380	15
Smallmouth buffalo	10	1
Longnose gar	1	1
Goldfish	11	2
Mottled sculpin	11	3
Least brook lamprey	4	1
Hornyhead chub	4	1
Stoneroller	917	33
Creek chub	1,463	36
River chub	59	3

Table 5. (continued)

Species	Number of fish	Number of studies in which species were taken
Bluntnose minnow	4,506	55
Silverjaw minnow	331	17
Brook silverside	383	16
Suckermouth minnow	4	2
Blacknose dace	9	5
Southern redbelly dace	1	1
Common shiner	2,185	50
Steelcolor shiner	10	2
Emerald shiner	10	1
Rosyface shiner	48	4
Rosefin shiner	850	32
Redfin shiner	59	13
Mimic shiner	8	2
Silver shiner	81	5
Bigeye shiner	40	3
<i>Notropis</i> sp.	171	4
Variegate darter	15	4
Orangethroat darter	25	4
Mosquitofish	3	2
Channel darter	7	1
Slenderhead darter	1	1
Greenside darter	148	17
Gilt darter	1	1
Blackside darter	128	24
Fantail darter	627	42
Banded darter	34	7
Johnny darter	227	40
Rainbow darter	329	34

stocks Raven Creek, Harrison County with 500 trout a month during April, May and June. The U. S. Forest Service has been stocking 500 trout a month in Craney Creek, Rowan County during the spring. These two streams, like most trout streams in the Commonwealth, are considered marginal trout streams in that they provide suitable habitat for trout only during the spring and early summer. The remainder of the year the water temperature and/or the flow may become unfavorable.



There is one other stream in this drainage, namely Hinkston Creek in Bourbon County, which in our opinion, is capable of supporting a put and take trout fishery at least during the spring and early summer.

#### Musky Waters

Approximately 16% of the 1750 miles of Kentucky's musky waters is located within the Licking River Drainage. Musky are found in the river from mile 140 upstream to mile 225. Three of the major tributaries (North Fork Creek, North Fork of Triplett Creek and Beaver Creek) in this section of the river also support significant musky populations (Brewer, D. L., 1969). Fifty miles of the river, along with the natural musky habitat of North Fork Creek and Beaver Creek, will be impounded by Cave Run Reservoir in 1972. The North Fork of Triplett Creek is downstream from the Cave Run Reservoir dam site and consequently will not be impounded.

#### RECOMMENDATIONS

1. It is recommended that consideration be given to the addition of Hinkston Creek, Bourbon County to Kentucky's trout stocking program.
2. It is recommended that consideration be given to development of fisherman access sites on the Licking River from Cave Run Dam to the mouth.

#### ACKNOWLEDGEMENTS

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## T H E   A P P E N D I X

The findings at each sampling location and a general description of the streams of fishery importance not sampled are found in the appendix. Here the streams are arranged in order of tributary progression, upstream sequence. Thus the first tributary stream listed is Banklick Creek, the furthest downstream tributary of fishery importance in the drainage. When more than one sampling area was established on a given stream the findings from each of these areas were described in upstream sequence before the order of tributary progression was resumed. For example: 2 sampling locations were established on South Fork Licking River and the results of these 2 samples precede the section on Fork Lick Creek, the first tributary of fishery importance to South Fork Licking River (see pages 24 - 26).

Although most of the data presented in the appendix are self explanatory, some terms may need clarification.

Stream length in miles designates the approximate length of that stream from its mouth upstream to the point where it becomes an Order II stream as shown on a topography map. The stream order classification for each stream is given as well as the length and surface acres of the sample area. The terms qualitative and quantitative are arbitrary terms which refer to the size and success of the fish population sample. The three columns of numerals in the fish fauna list designate the total number of each species collected in each of the size groups — fingerling, intermediate, and harvestable.

An index to the streams listed in the inventory is provided in the rear of the text.





Chemical and Physical Characteristics

D.O. - 9.2 ppm  
 pH - 8.0  
 Total alkalinity - 220 ppm  
 Temperature - 73° F.  
 Average width - 20'  
 Average depth - 0.8'  
 Velocity - N.D.  
 Volume - N.D.  
 Secchi disk - clear  
 Bottom type - rubble  
 Fish shelter - rubble  
 Shade - 10%

Fish Food Organisms

Ephemeroptera

Fish Fauna

Longear sunfish	2-0-0
Creek chub	81-11-0
Silverjaw minnow	4-0-0
Bluntnose minnow	3-0-0
Stoneroller	1-0-0
Common shiner	10-4-0
Rosefin shiner	1-0-0
Fantail darter	1-0-0

Aquatic Vegetation

None

BOWMAN CREEK (Kenton County)  
 8/29/69  
 Location - approximately 1 mile southwest of  
                   Kenton on Bowman Road  
 Method - Rotenone  
 Stream length - 6.8 miles

Order IV  
 Lgth. of sample area 170'  
 Acreage - 0.25  
 Quantitative: 1740 fish/acre  
                   311.6 lbs./acre

Bowman Creek rises near Nicholson and flows southeasterly to join Licking River below White Villa. Bowman Creek furnished fair to poor fishing for carp, bullheads, channel cats, panfishes, white crappie and black basses and there is a light amount of fishing from the bank along the course of Bowman Creek Road.

Chemical and Physical Characteristics

D.O. - 9.6 ppm  
 pH - 7.0  
 Total alkalinity - 150 ppm  
 Temperature -  
 Average width - 65'  
 Average depth - 3.6'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 20"  
 Bottom type - rubble and silt  
 Fish shelter - brush  
 Shade - 30%

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

Justicia sp.

Fish Fauna

Spotted bass	8-4-6
Bluegill	0-46-0
White crappie	0-1-0
Longear sunfish	10-34-4
Green sunfish	0-4-0
Channel catfish	0-1-0
Black bullhead	1-23-2
Brown bullhead	0-1-1
White sucker	1-65-0
Spotted sucker	0-6-0
Golden redhorse	1-27-0
Carp	0-1-21
Gizzard shad	0-1-4
Bluntnose minnow	108-0-0
Logperch	3-2-0
Stonecat	0-3-0
Johnny darter	11-0-0
Rainbow darter	4-0-0
Fantail darter	1-0-0
Rosefin shiner	3-0-0

CRUISES CREEK (Kenton County)  
 9/3/69  
 Location - 0.5 mile above the mouth of Little  
           Cruises Creek  
 Method - Rotenone  
 Stream length - 12.59 miles

Order IV  
 Lgth. of sample area 150'  
 Acreage - 0.20  
 Quantitative: 2924 fish/acre  
                   154.65 lbs./acre

Cruises Creek rises near Walton and flows east to enter Licking River approximately 3/4 mile south of Kenton. This clear flowing stream provides good fishing for spotted bass, panfish and channel catfish. White bass and crappie are also represented in the creel; however, none were taken in the following study. There is a moderate amount of fishing pressure both from the bank and by wading. The best fishing section on this stream is from the mouth upstream to Rich Road. Access is good at the L & N Railroad bridge, via Decorsey Pike and from Rich Road.

Chemical and Physical Characteristics

D.O. - 6.8 ppm  
 pH - 7.7  
 Total alkalinity - 175 ppm  
 Temperature - 74° F.  
 Average width - 51'  
 Average depth - 1.2'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - clear  
 Bottom type - bedrock and rubble  
 Fish shelter - ledges  
 Shade - 5%

Fish Food Organisms

Ephemeroptera, coleoptera

Aquatic Vegetation

None

Fish Fauna

Spotted bass	18-14-3
Rock bass	0-0-1
Bluegill	0-7-14
Warmouth	0-1-0
Longear sunfish	9-20-0
Green sunfish	4-19-2
Hybrid sunfish	0-1-0
Channel catfish	1-3-0
Yellow bullhead	1-9-0
Spotted sucker	0-2-0
Hog sucker	0-1-0
Golden redhorse	1-16-0
White sucker	0-12-0
Quillback	
carpsucker	0-2-0
Gizzard shad	0-41-47
Stoneroller	2-27-0
Silverjaw minnow	6-0-0
Bluntnose minnow	99-0-0
Common shiner	3-81-0
Rosefin shiner	13-0-0
Mimic shiner	1-0-0
Suckermouth minnow	3-0-0
Johnny darter	3-0-0
Rainbow darter	2-0-0
Fantail darter	4-0-0
Logperch	0-2-0

PHILLIPS CREEK (Campbell County)  
 8/27/69  
 Location - Boone Smith Road, approximately 2  
           miles upstream from mouth  
 Method - Rotenone  
 Stream length - 7.7 miles

Order III  
 Lgth. of sample area 150'  
 Acreage - 0.20  
 Qualitative

Phillips Creek rises near Persimmon Grove and flows southwest to join Licking River approximately three miles southwest of Grants Lick. This stream provides very little sport fishing. The creel consists mainly of longear sunfish, suckers and bullheads.

Chemical and Physical Characteristics

D.O. - 8.2 ppm  
 pH - 7.2  
 Total alkalinity - 112 ppm  
 Temperature -  
 Average width - 38'  
 Average depth - 1.5'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 18"  
 Bottom type - rubble, gravel, sand and silt  
 Fish shelter - logs and brush  
 Shade - 60%

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

Justicia sp.

Fish Fauna

Spotted bass	6-2-1
Bluegill	16-10-0
Longear sunfish	3-44-0
Green sunfish	1-5-0
Black bullhead	0-1-0
Brown bullhead	0-1-0
White sucker	4-16-0
Spotted sucker	0-2-0
Gizzard shad	0-0-7
Bluntnose minnow	100-0-0
Stoneroller	0-1-0
Creek chub	0-2-3
Common shiner	4-42-0
Rosefin shiner	3-0-0
Logperch	1-2-0
Blackside darter	2-0-0
Greenside darter	1-0-0
Johnny darter	12-0-0
Fantail darter	6-0-0

GRASSY CREEK (Pendleton County)  
 Stream length - 1.4 miles

Order V

South Fork joins Middle Fork then North Fork to form Grassy Creek approximately 1 1/2 miles upstream from its juncture with Licking River at Demossville. This stream and its three major forks provide good fishing for black basses, sunfishes and bullheads. Ample access to the three forks is provided by Highways 17, 1657 and several other highways and county roads northeast of Falmouth.

NORTH FORK GRASSY CREEK (Pendleton County)  
 11/11/69  
 Location - Highway 17 bridge  
 Method - NaCN  
 Stream length - 9.6 miles

Order IV  
 Lgth. of sample area 75'  
 Acreage - 0.10  
 Qualitative

Fishing pressure on this stream is moderate. Fishing from the bank or while wading is recommended.

Chemical and Physical Characteristics

D.O. - 8.4 ppm  
 pH - 7.7  
 Total alkalinity - 244 ppm  
 Temperature - 48° F.

Fish Fauna

Spotted bass	13-4-0
Bluegill	0-1-0
Longear sunfish	7-13-0
Green sunfish	17-39-10

Chemical and Physical Characteristics (cont.)

Average width - 60'  
 Average depth - 1.5'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - clear  
 Bottom type - bedrock  
 Fish shelter - ledges and weeds  
 Shade - 10 — 25%

Fish Food Organisms

Ephemeroptera, odonata

Aquatic Vegetation

Justicia sp.

Fish Fauna (cont.)

Hog sucker	0-3-0
White sucker	0-2-0
Stoneroller	3-20-0
Creek chub	1-2-0
Bluntnose minnow	97-7-0
Silverjaw minnow	10-0-0
Common shiner	3-26-0
Rosefin shiner	9-0-0
Suckermouth minnow	1-0-0
Blackside darter	5-0-0
Fantail darter	18-0-0
Johnny darter	7-0-0
Orangethroat darter	7-0-0

MIDDLE FORK GRASSY CREEK (Pendleton County)  
 11/6/69  
 Location - Bridge below St. Johns Church  
 Method - NaCN  
 Stream length - 12.6 miles

Order V  
 Lgth. of sample area 72'  
 Acreage - 0.08  
 Qualitative

This stream provides fair fishing for black bass, panfishes and suckers. The fishing pressure is light and the best method is from the bank.

Chemical and Physical Characteristics

D.O. - 4.8 ppm  
 pH - 7.9  
 Total alkalinity - 246 ppm  
 Temperature - 42° F.  
 Average width - 50'  
 Average depth - 2.5'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 30"  
 Bottom type - rubble  
 Fish shelter - undercut banks and logs  
 Shade - 25%

Fish Fauna

Spotted bass	1-3-0
Bluegill	0-0-1
Longear sunfish	0-33-0
Green sunfish	0-15-1
Spotted sucker	0-1-0
Golden redhorse	0-1-0
White sucker	0-1-0
Creek chub	2-0-0
Bluntnose minnow	21-0-0
Common shiner	4-5-0
Rainbow darter	1-0-0
Fantail darter	1-0-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

Justicia sp.

SOUTH FORK GRASSY CREEK (Pendleton County)  
 7/9/69  
 Location - 3 miles east of Knoxville off  
 Highway 467  
 Method - Rotenone  
 Stream length - 22.6 miles

Order IV  
 Lgth. of sample area 100'  
 Acreage 0.05  
 Qualitative



This is the largest and the best sport fishing stream of the three major forks of Grassy Creek; however, the fishing pressure is light. The stream may be fished from the bank or while wading.

Chemical and Physical Characteristics

D.O. - 4.6 ppm  
 pH - 6.9  
 Total alkalinity - 176 ppm  
 Temperature - 75° F.  
 Average width - 21'  
 Average depth - 1'  
 Velocity - N.D.  
 Volume - N.D.  
 Secchi disk - clear  
 Bottom type - sand and overlaid detritus  
 Fish shelter - weeds, logs and brush  
 Shade - 50%

Fish Fauna

Spotted bass	5-0-0
Longear sunfish	21-13-0
Green sunfish	0-3-0
Bluegill	11-7-0
Creek chub	1-5-1
Bluntnose minnow	48-0-0
Common shiner	56-13-0
Rosefin shiner	2-0-0
Redfin shiner	2-0-0
White sucker	1-2-0
Logperch	2-4-0
Blackside darter	3-0-0
Rainbow darter	1-0-0
Fantail darter	3-0-0
Johnny darter	14-0-0
Yellow bullhead	6-1-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

Sagittaria sp., Justicia sp.

SOUTH FORK GRASSY CREEK (Pendleton County)

7/8/69

Location - Mouth of Lightfoot Fork

Method - Rotenone

Stream length - 22.6 miles

Order IV

Lgth. of sample area 120'

Acreage - 0.11

Qualitative

Chemical and Physical Characteristics

D.O. - 3.8 ppm  
 pH - 6.7  
 Total alkalinity - 210 ppm  
 Temperature -  
 Average width - 24'  
 Average depth - 2'  
 Velocity - N.D.  
 Volume - N.D.  
 Secchi disk - 22"  
 Bottom type - sand and rubble  
 Fish shelter - logs and brush  
 Shade - 60%

Fish Fauna

Largemouth bass	0-2-0
Spotted bass	2-4-1
Bluegill	4-5-0
Longear sunfish	3-16-0
Warmouth	0-0-2
Green sunfish	1-8-4
Golden redhorse	0-5-0
White sucker	1-19-1
Spotted sucker	0-2-0
Carp	0-0-3
Bluntnose minnow	38-0-0
Common shiner	17-7-0
Logperch	1-4-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

Scirpus subterminalis

LICKING RIVER (Pendleton County)  
 10/24/69  
 Location - mouth of Flour Creek  
 Method - NaCN  
 Stream length - 39.7 miles in Pendleton County

Order VII  
 Lgth. of sample area 400'  
 Acreage - 0.55  
 Qualitative

The Licking River in Pendleton County is characterized by long pools separated by short shallow riffles. The stream gradient averages about two feet per mile. This section of the stream provides good fishing for channel catfish, flathead catfish, carp, buffalo and suckers. Crappie and drum, which were not taken in the following study, are taken in the creel occasionally. The fishing pressure is heavy especially during spring and fall. Anglers fish from the bank, while wading, from boat and while float fishing. The section most often float fished, in Pendleton County, is from Falmouth to Butler (approximately 12 miles). Trotline fishing is popular. Access to the river is good, however, there are no launching ramps.

Chemical and Physical Characteristics

D.O. - 11.2 ppm  
 pH - 7.7  
 Total alkalinity - 132 ppm  
 Temperature - 56° F.  
 Average width - 60'  
 Average depth - 2'  
 Velocity - 2.60 ft./sec.  
 Volume - 32.9 cfs  
 Secchi disk - 18"  
 Bottom type - boulders, rubble and gravel  
 Fish shelter - logs and boulders  
 Shade - 25%

Fish Fauna

Spotted bass	1-0-0
Rock bass	1-0-0
Longear sunfish	3-5-0
Blue sucker	0-0-4
Golden redhorse	0-0-1
Black redhorse	0-0-2
River redhorse	0-1-0
Shorthead redhorse	0-0-1
Hog sucker	0-1-1
Channel catfish	35-0-1
Flathead catfish	2-0-0
Stonecat	1-0-0
Slender madtom	5-0-0
Carolina madtom	1-0-0
<u>Noturus</u> sp.	1-0-0
Gizzard shad	0-1-5
Stoneroller	1-0-0
Bluntnose minnow	6-0-0
Steelcolor shiner	8-0-0
Logperch	6-6-0
Blackside darter	4-0-0
Fantail darter	2-0-0
Rainbow darter	5-0-0
Johnny darter	1-0-0
Banded darter	2-0-0

Fish Food Organisms

Ephemeroptera, megaloptera, diptera

Aquatic Vegetation

None

KINCAID CREEK (Pendleton County)  
 7/10/69  
 Location - 3/4 mile upstream from mouth  
 (along Highway 609)  
 Method - Seine  
 Stream length - 11.2 miles

Order IV  
 Lgth. of sample area 100 yds.  
 Acreage - 0.21  
 Qualitative

Kincaid Creek rises in western Bracken County and flows westward into Kincaid Lake, Pendleton County. Little Kincaid joins Kincaid tailwaters

approximately one mile below the dam and from this point downstream to the Licking River, a distance of approximately one and one-half miles, there is a limited amount of good fishing for basses, sunfishes and bullheads. This area may best be fished from the bank or by wading and using light gear. Access is good along Highway 609.

Chemical and Physical Characteristics

D.O. - 6.0 ppm  
 pH - 6.9  
 Total alkalinity -  
 Temperature - 72° F.  
 Average width - 40'  
 Average depth - 1.5'  
 Velocity - 0.16 ft./sec.  
 Volume - 1.97 cfs  
 Secchi disk - 10"  
 Bottom type - bedrock with some detritus  
 Fish shelter - ledges and brush  
 Shade - 30%

Fish Food Organisms

Ephemeroptera, decapoda, gastropoda

Aquatic Vegetation

Justicia sp.

Fish Fauna

Largemouth bass	0-1-0
Smallmouth bass	21-0-0
Spotted bass	25-0-0
Bluegill	3-6-0
Rock bass	5-9-0
Green sunfish	0-1-0
Yellow bullhead	76-0-0
Smallmouth buffalo	10-0-0
Stoneroller	29-0-0
Creek chub	4-0-0
Bluntnose minnow	199-0-0
Silverjaw minnow	105-0-0
Common shiner	7-0-0
Redfin shiner	2-0-0
Greenside darter	37-0-0
Rainbow darter	1-0-0

SOUTH FORK LICKING RIVER (Pendleton and  
 Harrison Counties)  
 10/23/69  
 Location - Hays Station Road bridge approxi-  
 mately 2 miles southwest of Falmouth  
 Method - NaCN  
 Stream length - 64.7 miles

Order VI  
 Lgth. of sample area 80'  
 Acreage - 0.09  
 Qualitative

The South Fork Licking River is formed by the juncture of Stoner Creek and Hinkston Creek in northern Bourbon County. From this point the river flows north through Harrison County and north-northeast in Pendleton County to join the Licking River at Falmouth. Although the following studies do not reveal a population of carp, drum and crappie this stream provides excellent to good fishing for these fishes in addition to black basses, panfishes and catfish. Access is good at the following locations: A. Keller Dam, Poindexter Dam, Robertson Dam and Falmouth Dam.

Chemical and Physical Characteristics

D.O. - 8.2 ppm  
 pH - 7.7  
 Total alkalinity - 198 ppm  
 Temperature - 42° F.  
 Average width - 50'  
 Average depth - 0.5'

Fish Fauna

Smallmouth bass	0-1-0
Spotted bass	2-0-0
Rock bass	0-2-0
Longear sunfish	20-19-0
Bluegill	16-1-0
Golden redhorse	6-0-0

Chemical and Physical Characteristics (cont.)

Velocity - 0.10 ft./sec.  
 Volume - 1.2 cfs  
 Secchi disk - clear  
 Bottom type - bedrock  
 Fish shelter - ledges and logs  
 Shade - 20%

Fish Food Organisms

Gastropoda

Aquatic Vegetation

Justicia sp.

Fish Fauna (cont.)

Stoneroller	7-0-0
Hog sucker	7-4-0
Bluntnose minnow	1-0-0
Brook silverside	1-0-0
Channel catfish	1-0-0
Stonecat	2-0-0
Slender madtom	1-0-0
Common shiner	2-0-0
Silver shiner	2-0-0
Rosefin shiner	3-0-0
Steelcolor shiner	2-0-0
Greenside darter	21-0-0
Rainbow darter	2-0-0
Fantail darter	5-0-0

SOUTH FORK LICKING RIVER (Pendleton and  
 Harrison Counties)

9/24/69

Location - below Poindexter Dam

Method - Rotenone

Stream length - 64.7 miles

Order VI  
 Lgth. of sample area 100'  
 Acreage - 0.28  
 Qualitative

Chemical and Physical Characteristics

D.O. - 8.0 ppm  
 pH - 7.6  
 Total alkalinity - 187 ppm  
 Temperature - 66° F.  
 Average width - 120'  
 Average depth - 3'  
 Velocity - approx. 0.10 ft./sec.  
 Volume - approx. 3.10 cfs  
 Secchi disk - 30"  
 Bottom type - bedrock, boulders and rubble  
 Fish shelter - boulders, logs and weeds  
 Shade - 25%

Fish Food Organisms

Ephemeroptera, gastropoda, decapoda

Aquatic Vegetation

Justicia sp.

Fish Fauna

Smallmouth bass	0-8-1
Spotted bass	8-7-0
Rock bass	13-10-6
Longear sunfish	54-139-0
Bluegill	6-8-3
Warmouth	5-2-0
Green sunfish	4-12-1
Flathead catfish	1-0-0
Stonecat	1-1-0
Brindled madtom	2-0-0
Hog sucker	0-0-3
Golden redhorse	3-4-4
Shorthead redhorse	0-1-0
Logperch	5-23-0
Rainbow darter	20-0-0
Fantail darter	19-0-0
Greenside darter	4-1-0
Bluntnose minnow	32-0-0
Brook silverside	81-0-0
Silver shiner	22-11-0
Common shiner	6-64-0
Bigeye shiner	2-0-0
<u>Notropis</u> sp.	1-0-0

FORK LICK CREEK (Pendleton County)  
 10/22/69  
 Location - approximately 1/2 mile west of  
                   Morgan below Highway 318 bridge  
 Method - NaCN  
 Stream length - 7.5 miles

Order V  
 Lgth. of sample area 125'  
 Acreage - 0.15  
 Quantitative: 1747 fish/acre  
                   139.5 lbs./acre

Fork Lick Creek rises near Kent in Grant County and flows east-northeast to join the South Fork Licking River 0.5 mile north of Morgan. The lower sections of this stream provide a good fishery for black basses and panfishes and fishing is considered good at the mouth. Access is available at Highway 318 bridge and along route 1054 north of Morgan.

Chemical and Physical Characteristics

D.O. - 5.0 ppm  
 pH - 7.4  
 Total alkalinity - 197 ppm  
 Temperature - 54° F.  
 Average width - 50'  
 Average depth - 1.4'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 30"  
 Bottom type - silt and rubble  
 Fish shelter - undercut banks, rubble and brush  
 Shade - 5%

Fish Fauna

Largemouth bass	1-1-3
Spotted bass	1-0-0
Smallmouth bass	1-5-2
Rock bass	1-3-10
White crappie	1-1-1
Bluegill	13-9-7
Green sunfish	2-16-5
Longear sunfish	0-31-1
Golden redhorse	3-3-5
Spotted sucker	1-0-0
Hog sucker	0-0-2
Gizzard shad	0-4-0
Bluntnose minnow	37-0-0
Brook silverside	11-0-0
Common shiner	0-2-0
Silver shiner	32-2-0
Rosefin shiner	7-0-0
Logperch	0-3-0
Fantail darter	28-0-0
Rainbow darter	3-0-0
Johnny darter	3-0-0
Blackside darter	1-0-0

Fish Food Organisms

Ephemeroptera, gastropoda, trichoptera

Aquatic Vegetation

None

RAVEN CREEK (Harrison County)  
 9/23/69  
 Location - Casey Mill Road bridge  
 Method - Rotenone  
 Stream length - 12.1 miles

Order IV  
 Lgth. of sample area 90'  
 Acreage - 0.10  
 Qualitative

Raven Creek is formed by the juncture of South Fork Raven and Middle Fork Raven. From this point the creek flows north and east to join South Fork Licking River above Berry. This stream provides fair fishing for black basses and panfishes. Approximately 2 miles of its length is stocked with trout by the Kentucky Fisheries Division. Access to the three forks of Raven Creek is provided via Route 36 east of Cynthiana and to the main stream via Casey Mill Road and Lafferty Pike. Fishing with light tackle from bank or while wading is recommended.

Chemical and Physical CharacteristicsFish Fauna

D.O. - 3.6 ppm  
 pH - 7.3  
 Total alkalinity - 190 ppm  
 Temperature - 62° F.  
 Average width - 50'  
 Average depth - 2.2'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 24"  
 Bottom type - rubble and silt  
 Fish shelter - logs and brush  
 Shade - 75%

Fish Food Organisms

Ephemeroptera, gastropoda

Aquatic Vegetation

Justicia sp.

Spotted bass	2-4-1
White crappie	1-0-0
Longear sunfish	5-4-0
Green sunfish	0-0-1
Bluegill	0-0-1
Golden redhorse	0-2-3
Spotted sucker	0-3-0
White sucker	0-15-0
Yellow bullhead	0-1-0
Gizzard shad	0-2-0
Stoneroller	1-3-0
Bluntnose minnow	34-0-0
Common shiner	11-0-0
Rosefin shiner	2-0-0
Logperch	2-1-0
Johnny darter	4-0-0
Rainbow darter	11-0-0
Fantail darter	9-0-0

TWIN CREEK (Harrison County)  
 9/26/69  
 Location - Lafferty Pike bridge (Route 1054)  
 Method - NaCN  
 Stream length - 7.7 miles

Order III  
 Lgth. of sample area 160'  
 Acreage - 0.18  
 Qualitative

The fishery of this stream has been enhanced by the work of a farmer who built a series of low level dams which created pools large enough to maintain a light pressure fishery for spotted bass and panfishes. This stream may best be fished with light gear from the bank or while wading. Access is available at only two locations: Lafferty Pike and Robertson. The two branches of Twin Creek rise on either side of Junction Pike and flow northeast where they join approximately 0.75 mile above the mouth.

Chemical and Physical CharacteristicsFish Fauna

D.O. - 7.2 ppm  
 pH - 7.4  
 Total alkalinity - 179 ppm  
 Temperature -  
 Average width - 50'  
 Average depth - 2'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 30"  
 Bottom type - gravel  
 Fish shelter - logs  
 Shade - 25%

Spotted bass	4-6-1
Longear sunfish	23-17-1
Green sunfish	4-5-1
Bluegill	6-0-0
Golden redhorse	0-5-0
White sucker	0-1-0
Bluntnose minnow	55-0-0
Stoneroller	0-2-0
Brook silverside	23-0-0
Common shiner	3-35-0
Rosefin shiner	90-0-0
Bigeye shiner	32-0-0

Fish Food Organisms

Ephemeroptera, decapoda, megaloptera

Aquatic VegetationJusticia sp.Fish Fauna (cont.)

Logperch	0-10-0
Blackside darter	2-0-0
Greenside darter	3-0-0
Johnny darter	5-0-0
Rainbow darter	43-0-0
Fantail darter	60-0-0

MILL CREEK (Harrison County)

9/25/69

Location - Off Route 36, upstream ten  
miles from mouth

Method - NaCN

Stream length - 19 miles

Order IV

Lgth. of sample area 100'

Acreage - 0.09

Qualitative

Mill Creek rises in southwestern Harrison County and flows north to join South Fork Licking River approximately 3 miles below Poindexter. This stream provides good fishing for black basses, rock bass and panfishes. Giggling is good during the sucker "run". Access is good on Route 36, Poindexter Pike, Whiteoak Pike and Sadieville Road. This stream should be fished from the bank or while wading using light gear.

Chemical and Physical Characteristics

D.O. - 7.4 ppm

pH - 7.8

Total alkalinity - 196 ppm

Temperature - 67° F.

Average width - 40'

Average depth - 2.5'

Velocity - Nil

Volume - N.D.

Secchi disk - 22"

Bottom type - rubble

Fish shelter - logs

Shade - 60%

Fish Fauna

Largemouth bass	0-1-0
Rock bass	5-0-6
Bluegill	22-13-4
Hybrid sunfish	4-0-0
Green sunfish	70-12-2
Longear sunfish	94-17-0
Shorthead redhorse	0-1-0
Brook silverside	12-0-0
Bluntnose minnow	400-0-0
Creek chub	1-0-0
Common shiner	0-2-0
Bigeye shiner	6-0-0
Johnny darter	10-0-0
Rainbow darter	48-0-0
Fantail darter	55-0-0

Fish Food Organisms

Ephemeroptera, gastropoda, pelecypoda

Aquatic VegetationJusticia sp.

INDIAN CREEK (Harrison County)

9/30/69

Location - approximately four miles upstream  
from mouth

Method - NaCN

Stream length - 7.3 miles

Order III

Lgth. of sample area 90'

Acreage - 0.08

Qualitative

Indian Creek rises in southeastern Harrison County and flows westward to join South Fork Licking River approximately one mile north of Cynthiana. The best fishing area on this stream is a four mile stretch between Route 27 and Buena Vista Pike. This stream provides good fishing for largemouth bass, crappie, rock bass, green sunfish, and bullhead. Sucker giggering is considered excellent in this stream. The best fishing method for most of this stream is pole and line from the bank. Access is limited.

Chemical and Physical Characteristics

D.O. - 5.2 ppm  
 pH - 7.1  
 Total alkalinity - 190 ppm  
 Temperature - 64° F.  
 Average width - 40'  
 Average depth - 1.5'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 22"  
 Bottom type - rubble  
 Fish shelter - logs, brush and rubble  
 Shade - 50%

Fish Fauna

Largemouth bass	0-1-2
Warmouth	4-6-1
Longear sunfish	4-48-2
Green sunfish	7-8-1
Hybrid sunfish	0-2-0
Bluegill	48-3-1
White crappie	0-17-0
Yellow bullhead	0-0-1
Golden redhorse	0-0-1
White sucker	0-1-42
Brook silverside	2-0-0
Stoneroller	2-0-0
Bluntnose minnow	82-0-0
Johnny darter	1-0-0
Rainbow darter	53-0-0
Fantail darter	23-0-0

Fish Food Organisms

Ephemeroptera, coleoptera

Aquatic Vegetation

None

GRAYS RUN (Harrison County)  
 10/3/69  
 Location - junction of Grass Run Road and  
 Mt. Vernon Pike  
 Method - Seine  
 Stream length - 5.1 miles

Order III  
 Lgth. of sample area 75'  
 Acreage - 0.06  
 Qualitative

Grays Run rises approximately one mile northeast of Leesburg and flows northeast to join the South Fork Licking River at Cynthiana. This small stream provides little fishing except near the mouth. The fishing pressure is light and the best method is from the bank. Access is good along Highway 27 south of Cynthiana, Connersville Pike and Grays Run Pike.

Chemical and Physical Characteristics

D.O. - 2.2 ppm  
 pH - 7.3  
 Total alkalinity - 221 ppm  
 Temperature - 60° F.  
 Average width - 30'  
 Average depth - 0.3'

Fish Fauna

Largemouth bass	0-1-0
White crappie	0-2-0
Bluegill	1-116-1
Redear sunfish	1-10-14
Orangespotted sunfish	1-1-0



Chemical and Physical Characteristics (cont.)

Velocity - Nil  
 Volume - N.D.  
 Secchi disk - clear  
 Bottom type - rubble and gravel  
 Fish shelter - rubble and grass  
 Shade - 60%

Fish Fauna (cont.)

Longear sunfish	29-28-0
Green sunfish	13-38-5
Carp	0-0-1
Brown bullhead	30-15-0
White sucker	2-1-0
Creek chub	0-60-0
Bluntnose minnow	17-0-0
Brook silverside	31-0-0
Common shiner	1-28-0
Rosefin shiner	96-0-0
Johnny darter	1-0-0

Fish Food Organisms

Ephemeroptera, gastropoda, coleoptera  
 oligochaeta

Aquatic Vegetation

None

TOWNSEND CREEK (Harrison and Bourbon Counties)  
 10/2/69  
 Location - Highway 27 bridge  
 Method - NaCN  
 Stream length - 8.5 miles

Order IV  
 Lgth. of sample area 100'  
 Acreage - 0.11  
 Quantitative: 3645 fish/acre  
 208.73 lbs./acre

This is one of the better streams in this drainage. Townsend Creek rises in western Bourbon County near Centerville and flows northeast to form the Harrison-Bourbon County line from the mouth of Silas Creek to South Fork Licking River. The lower four miles of this stream provide an important fishery for black basses, crappie, panfishes and sucker gigging. The potential of this stream is limited by low flow. The best fishing method is wading while using light gear. Access is available along Highway 27 and through farms.

Chemical and Physical Characteristics

D.O. - 2.4 ppm  
 pH - 7.4  
 Total alkalinity - 213 ppm  
 Temperature - 62° F.  
 Average width - 50'  
 Average depth - 2'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 30"  
 Bottom type - bedrock, boulders and rubble  
 Fish shelter - boulders and logs  
 Shade - 50%

Fish Fauna

Smallmouth bass	0-11-5
Rock bass	1-7-10
White crappie	0-1-0
Bluegill	5-43-2
Hybrid sunfish	2-0-0
Redear sunfish	0-1-0
Longear sunfish	30-152-2
Green sunfish	4-51-6
Brook silverside	9-0-0
Bluntnose minnow	1-0-0
Common shiner	0-51-0
Rainbow darter	6-0-0
Fantail darter	1-0-0

Fish Food Organisms

Ephemeroptera, diptera, gastropoda, pelecypoda

Aquatic Vegetation

Justicia sp.

STONER CREEK (Bourbon County)  
 8/8/69  
 Location - two miles below the first ford  
 above Paris  
 Method - Rotenone  
 Stream length - 68 miles

Order V  
 Lgth. of sample area 150'  
 Acreage - 0.34  
 Qualitative

Stoner Creek rises in Clark County, approximately three miles east of Winchester, and flows northward through Bourbon County to join Hinkston Creek thereby forming South Fork Licking River. Stoner Creek is one of the best fishing streams in the drainage. It provides good to excellent fishing for black basses, sunfishes and carp. However, the fishability of this stream is being impaired by the profuse growth of duck weed, Lemna sp., in long sections of this stream above the Paris dam. Fishing from boat or bank is recommended in those sections above the Paris reservoir dams while from the mouth upstream to Paris wading is best. Access is good from a number of roads which parallel and/or cross this stream.

Chemical and Physical Characteristics

D.O. -  
 pH -  
 Total alkalinity -  
 Temperature -  
 Average width - 100'  
 Average depth - 4.7'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 30"  
 Bottom type - rubble and silt  
 Fish shelter - rubble  
 Shade - 30%

Fish Fauna

Largemouth bass	11-6-3
Bluegill	42-16-9
Warmouth	77-82-16
Longear sunfish	5-47-9
Green sunfish	0-2-0
Yellow bullhead	0-1-0
Golden redhorse	0-0-1
Bluntnose minnow	120-0-0
Logperch	5-1-0

Fish Food Organisms

Aquatic Vegetation

Lemna sp.

STONER CREEK (Bourbon County)  
 7/31/69  
 Location - first ford upstream from Paris  
 Method - Rotenone  
 Stream length - 68 miles

Order V  
 Lgth. of sample area 102'  
 Acreage - 0.15  
 Qualitative

Chemical and Physical Characteristics

D.O. - 6.8 ppm  
 pH - 7.0  
 Total alkalinity - 231 ppm  
 Temperature - 73° F.  
 Average width - 63'  
 Average depth - 3'  
 Velocity - Nil  
 Volume - N.D.

Fish Fauna

Largemouth bass	4-1-0
Spotted bass	29-3-0
White crappie	0-1-0
Bluegill	72-17-2
Stoneroller	53-3-0
Bluntnose minnow	130-0-0
Yellow bullhead	3-0-0
Common shiner	2-0-0

Chemical and Physical Characteristics (cont.)

Secchi disk - 24"  
 Bottom type - detritus, silt and rubble  
 Fish shelter - weeds  
 Shade - 30%

Fish Food Organisms

Ephemeroptera, gastropoda

Fish Fauna (cont.)

Rosefin shiner	15-0-0
Mosquitofish	1-0-0
Greenside darter	8-0-0
Johnny darter	1-0-0
Rainbow darter	15-0-0
Fantail darter	6-0-0

Aquatic Vegetation

Ceratophyllum demersum,  
Potamogeton crispus,  
Lemna sp., algae

## STONER CREEK (Bourbon County)

8/7/69

Location - Thomas Road bridge (approximately  
 7 miles southeast of Paris)

Method - Rotenone

## Order IV

Lgth. of sample area 120'

Acreage - 0.17

Quantitative: 968 fish/acre  
 100.22 lbs./acre

Chemical and Physical Characteristics

D.O. - 4.4 ppm  
 pH - 6.9  
 Total alkalinity - 226 ppm  
 Temperature - 70° F.  
 Average width - 62'  
 Average depth - 4.4'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 22"  
 Bottom type - muck and silt  
 Fish shelter - logs and weeds  
 Shade - 20%

Fish Food Organisms

Ephemeroptera

Fish Fauna

Largemouth bass	0-0-2
Smallmouth bass	4-5-1
Warmouth	21-71-3
Bluegill	0-8-3
Longear sunfish	0-5-1
Yellow bullhead	1-0-0
Golden redhorse	0-0-1
Goldfish	0-0-1
Mosquitofish	1-0-0
Carp	0-0-1
Logperch	0-4-0

Aquatic Vegetation

Lemna sp.

## HOUSTON CREEK (Bourbon County)

8/4/69

Location - 1.5 miles south of Paris on  
 Highway 27

Method - Seine

Stream length - 22.4 miles

## Order IV

Lgth. of sample area 200 yds.

Acreage - N.D.

Qualitative

Houston Creek rises in southwestern Bourbon County and flows northeastwardly to join Stoner Creek in Paris. This stream is of moderate gradient with small pools and long shallow riffles. It supports a low population of black basses and panfishes.

Chemical and Physical Characteristics

D.O. - 7.0 ppm  
 pH - 6.7  
 Total alkalinity - 222 ppm  
 Temperature - 74° F.  
 Average width - 40'  
 Average depth - 0.7'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - clear  
 Bottom type - bedrock  
 Fish shelter - ledges  
 Shade - 5 --- 10%

Fish Fauna

Largemouth bass	0-1-0
Smallmouth bass	3-0-0
Bluegill	2-1-0
Longear sunfish	2-7-0
Rock bass	0-1-0
Green sunfish	0-1-0
White sucker	0-1-0
Creek chub	5-0-0
Brook silverside	47-0-0
Bluntnose minnow	94-0-0
Common shiner	49-14-2
Rosefin shiner	3-0-0
Greenside darter	26-0-0
Rainbow darter	4-0-0

Fish Food Organisms

Ephemeroptera, gastropoda, trichoptera

Aquatic Vegetation

Lemna sp.

STRODE CREEK (Bourbon County)  
 8/5/69  
 Location - Thatcher Mill Road 1 1/2 miles  
 east of Austerlitz  
 Method - Rotenone  
 Stream length - 24.7 miles

Order V  
 Lgth. of sample area 200'  
 Acreage - 0.24  
 Qualitative

Strode Creek rises approximately 2 miles west of Winchester in Clark County and flows north into Bourbon County joining Stoner Creek approximately 5 miles east of Paris. This is one of the better small streams in the drainage and it supports good black bass fishing from Highway 956 bridge downstream to the mouth. Access to the best fishing area is limited to the 956 bridge and highway. Bank fishing and wading are recommended.

Chemical and Physical Characteristics

D.O. - 4.8 ppm  
 pH - 7.1  
 Total alkalinity - 182 ppm  
 Temperature - 71° F.  
 Average width - 52'  
 Average depth - 2.2'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 14"  
 Bottom type - rubble  
 Fish shelter - logs and brush  
 Shade - 20%

Fish Fauna

Largemouth bass	0-1-0
White crappie	2-2-0
Rock bass	3-1-0
Warmouth	4-6-2
Bluegill	2-0-0
Longear sunfish	892-257-6
Green sunfish	2-1-0
Hybrid sunfish	2-15-1
Yellow bullhead	0-0-1
White sucker	0-1-0
Carp	0-1-1
Goldfish	0-0-10
Bluntnose minnow	53-45-0
Brook silverside	1-0-0
Common shiner	0-18-0
Rosefin shiner	24-0-0
Creek chub	1-0-0
Johnny darter	2-0-0

Fish Food Organisms

Ephemeroptera, gastropoda

Aquatic Vegetation

Justicia sp.

STRODE CREEK (Bourbon County)  
8/1/69  
Location - Winchester-Paris Road (227) bridge  
Method - Rotenone  
Stream length - 24.7 miles

Order V  
Lgth. of sample area 200'  
Acreage - 0.23  
Qualitative

The following fish fauna sample is not considered representative of this section of Strode Creek.

Chemical and Physical Characteristics

D.O. - 2.9 ppm  
pH - 6.8  
Total alkalinity - 185 ppm  
Temperature - 69° F.  
Average width - 50'  
Average depth - 0.8'  
Velocity - 0.05 ft./sec.  
Volume - 2.02 cfs  
Secchi disk - 15"  
Bottom type - silt and gravel  
Fish shelter - undercut banks and brush  
Shade - 80%

Fish Fauna

Rock bass	0-16-0
Longear sunfish	40-15-0
Creek chub	2-0-0
Mosquitofish	1-0-0

Fish Food Organisms

None

Aquatic Vegetation

None

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HINKSTON CREEK (Bourbon - Nicholas Counties)  
8/6/69  
Location - covered bridge on Colville Road  
Method - Rotenone  
Stream length - 72.4 miles

Order V  
Lgth. of sample area 340'  
Acreage - 0.44  
Qualitative

Hinkston Creek rises approximately 2 miles south of Mount Sterling, in Montgomery County, and flows north to form the Bourbon-Nicholas County line then west to join with Stoner Creek to form South Fork Licking River. The best fishing in Hinkston Creek is found in the section from the mouth upstream to the mouth of Somerset Creek. This cool water section provides good fishing for smallmouth bass and rock bass and a spring sucker fishery. That section of Hinkston Creek from the mouth upstream to the Millersburg dam can best be fished by wading and using light gear while above Millersburg dam fishing from boat or bank is recommended. Access is provided at Ruddles Mill, Old Covered Bridge and Millersburg.

Chemical and Physical Characteristics

D.O. - 5.2 ppm  
pH - 7.0  
Total alkalinity -  
Temperature - 72° F.  
Average width - 57'  
Average depth - 1.5'  
Velocity - N.D.  
Volume - N.D.  
Secchi disk - 24"  
Bottom type - rubble, gravel, sand and silt  
Fish shelter - undercut banks  
Shade - 40%

Fish Fauna

Smallmouth bass	3-5-2
Rock bass	23-40-17
Bluegill	3-5-3
Green sunfish	1-8-0
Longear sunfish	63-58-2
Golden redhorse	0-1-4
Creek chub	3-0-0
Bluntnose minnow	44-0-0
Common shiner	254-64-0
<u>Notropis</u> sp.	9-0-0
Rosefin shiner	23-0-0
Silver shiner	3-0-0

Fish Food Organisms

Ephemeroptera, gastropoda

Aquatic VegetationJusticia sp.Fish Fauna (cont.)

Redfin shiner	1-0-0
Stonecat	1-6-0
Logperch	1-15-0
Blackside darter	6-0-0
Greenside darter	11-0-0
Johnny darter	1-0-0
Rainbow darter	2-0-0
Fantail darter	23-0-0

HINKSTON CREEK (Bourbon and Nicholas Counties)  
6/25/69

Location - immediately above Highway 1198 bridge  
approximately 3 miles west of  
Sharpsburg

Method - Rotenone

Stream length - 72.4 miles

Order V

Lgth. of sample area 360'

Acreage - 0.57

Quantitative: 3296 fish/acre  
59.5 lbs./acre

That section of Hinkston Creek from the mouth of Somerset Creek upstream to the point where Hinkston Creek leaves Montgomery County is of little fishery importance and all of the Montgomery County section of this stream is severely degraded by sewage pollution originating from Mt. Sterling.

Chemical and Physical Characteristics

D.O. - 3.0 ppm  
pH - 7.0  
Total alkalinity - 162 ppm  
Temperature - 67° F.  
Average width - 32'  
Average depth - 2'  
Velocity - 0.68 ft./sec.  
Volume - 63.24 cfs  
Secchi disk - 18"  
Bottom type - rubble and silt  
Fish shelter - logs and brush  
Shade - 60 — 90%

Fish Food Organisms

Ephemeroptera, gastropoda

Aquatic Vegetation

None

Fish Fauna

Rock bass	1-9-2
Bluegill	17-4-1
Green sunfish	11-0-0
Longear sunfish	0-10-0
Yellow bullhead	0-1-0
Golden redhorse	0-15-1
White sucker	20-10-4
Creek chub	202-19-0
Bluntnose minnow	243-0-0
Stoneroller	38-0-0
Common shiner	150-37-0
Rosefin shiner	1-0-0
Redfin shiner	8-0-0
Blackside darter	29-0-0
Logperch	5-4-0
Johnny darter	19-0-0
Rainbow darter	1-0-0
Fantail darter	23-0-0

HINKSTON CREEK (Montgomery County)

6/25/69

Location - 4 miles north of Mt. Sterling off  
Hinkston Road (Hunt Farm)

Method - Rotenone

Stream length - 72.4 miles

Order V

Lgth. of sample area 150'

Acreage - 0.09

Quantitative: one fish that  
was observed

There is no fishing in Hinkston Creek from the headwaters to approximately 4 miles below Mt. Sterling due to sewage pollution.

Chemical and Physical Characteristics

D.O. - 3.6 ppm  
 pH - 6.7  
 Total alkalinity - 139 ppm  
 Temperature - 65° F.  
 Average width - 25'  
 Average depth - 0.8'  
 Velocity - 0.48 ft./sec.  
 Volume - 6.48 cfs  
 Secchi disk - 30"  
 Bottom type - silt over bedrock  
 Fish shelter - brush and undercut banks  
 Shade - 50%

Fish Fauna

Stoneroller 1-0-0

Fish Food Organisms

None

Aquatic Vegetation

None

BIG BRUSHY CREEK (Nicholas County)  
 9/10/69  
 Location - 200 yards above Highway 386 bridge  
 Method - Rotenone  
 Stream length - 10 miles

Order IV  
 Lgth. of sample area 75'  
 Acreage - 0.08  
 Qualitative

Big Brushy Cr  ek is formed by the juncture of Brushy Fork and Brushy Creek approximately four miles southwest of Carlisle and flows southwest to join Hinkston Creek. This stream provides good fishing for largemouth bass, panfishes and drum, and fishing success is considered good. This stream may be fished with light gear by wading or using small boat or canoe. Access is good at Highway 386 bridge. The following study is not considered representative of the fish population of this stream.

Chemical and Physical Characteristics

D.O. - 4.2 ppm  
 pH - N.D.  
 Total alkalinity - 240 ppm  
 Temperature - 61° F.  
 Average width - 45'  
 Average depth - 0.9'  
 Velocity - 0.31 ft./sec.  
 Volume - 1.05 cfs  
 Secchi disk - 36"  
 Bottom type - rubble and boulders  
 Fish shelter - boulders  
 Shade - 90%

Fish Fauna

Rock bass 3-11-0  
 Bluegill 19-0-0  
 Longear sunfish 0-9-0  
 Green sunfish 10-23-0  
 Creek chub 6-10-0  
 Common shiner 0-6-0  
 Rosefin shiner 3-0-0  
 Rainbow darter 37-0-0  
 Johnny darter 22-0-0  
 Fantail darter 72-0-0

Fish Food Organisms

Ephemeroptera, gastropoda

Aquatic Vegetation

Justicia sp., Potamogeton pulcher

## BRUSHY CREEK (Nicholas County)

9/11/69

Location - 200 yards above mouth of Wilburn Run

Method - Rotenone

Stream length - 5 miles

Order IV

Lgth. of sample area 140'

Acreage 0.16

Qualitative

Brushy Creek rises near Barterville and flows south to join Brushy Fork thereby forming Big Brushy Creek. This stream is apparently stocked with young largemouth bass occasionally via a tributary which receives the overflow of Lake Carnico. This stream provides good fishing for largemouth bass and panfishes. There is a moderate amount of pressure and the best method is to use light gear from the bank or while wading. Good access is provided through farms and at Highway 36 bridge.

Chemical and Physical Characteristics

D.O. - 6.8 ppm

pH - N.D.

Total alkalinity - 194 ppm

Temperature - 60° F.

Average width - 45'

Average depth - 1'

Velocity - Nil

Volume - N.D.

Secchi disk - clear

Bottom type - rubble

Fish shelter - brush and weeds

Shade - 20%

Fish Fauna

Largemouth bass	2-2-4
Bluegill	0-8-0
Longear sunfish	34-41-2
Green sunfish	6-5-8
Black bullhead	0-0-1
White sucker	0-1-5
Bluntnose minnow	375-0-0
Brook silverside	124-0-0
Common shiner	0-12-0
Rosefin shiner	163-0-0
Logperch	0-1-0
Johnny darter	9-0-0
Rainbow darter	2-0-0
Fantail darter	4-0-0

Fish Food Organisms

Ephemeroptera, Gastropoda

Aquatic VegetationJusticia sp., Scirpus subterminalis

## SOMERSET CREEK (Nicholas County)

9/10/69

Location - 2 miles west of East Union on  
Highway 57

Method - Rotenone

Stream length - 7.6 miles

Order IV

Lgth. of sample area 90'

Acreage - 0.07

Qualitative

Somerset Creek rises near Weston and flows southeast to Moorefield and then southwest to join Hinkston Creek. This stream is of minor importance although it provides some sucker gigging. Dumping is a pollution problem at access areas.

Chemical and Physical Characteristics

D.O. - 6.6 ppm

pH - N.D.

Total alkalinity - 207 ppm

Temperature - 62° F.

Fish Fauna

Bluegill	1-0-0
Green sunfish	2-0-0
White sucker	11-4-0
Stoneroller	7-0-0



Chemical and Physical Characteristics (cont.)

Average width - 33'  
 Average depth - 2.2'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 30"  
 Bottom type - rubble and gravel  
 Fish shelter - brush  
 Shade - 30%

Fish Food Organisms

Ephemeroptera

Fish Fauna (cont.)

Bluntnose minnow 40-0-0  
 Creek chub 14-0-0  
 Common shiner 7-0-0  
 Blackside darter 2-0-0  
 Johnny darter 8-0-0  
 Rainbow darter 2-0-0  
 Orangethroat darter 5-0-0

Aquatic Vegetation

Justicia sp.

BLANKET CREEK (Pendleton County)  
 10/21/69  
 Location - 1 1/4 miles from mouth  
 Method - NaCN  
 Stream length - 8.0 miles

Order III  
 Lgth. of sample area 80'  
 Acreage - 0.09  
 Qualitative

Blanket Creek rises in southern Pendleton County east of Highway 27 and flows north to join Licking River about 2 1/2 miles southeast of Falmouth. The lower section of this stream provides fair fishing for black basses and panfishes. Suckers are giggered here in the spring. Access to the lower section of this stream is provided by a county road which meanders from Falmouth to Highway 27 approximately six miles south of Falmouth.

Chemical and Physical Characteristics

D.O. - 5.4 ppm  
 pH - 7.4  
 Total alkalinity - 187 ppm  
 Temperature - 52° F.  
 Average width - 50'  
 Average depth - 1.6'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 10"  
 Bottom type - bedrock  
 Fish shelter - ledges  
 Shade - 25%

Fish Food Organisms

Ephemeroptera, gastropoda, coleoptera

Aquatic Vegetation

Justicia sp.

Fish Fauna

Largemouth bass 0-0-2  
 Spotted bass 1-10-0  
 Longear sunfish 5-21-2  
 Bluegill 0-9-1  
 Green sunfish 0-5-2  
 White sucker 0-4-0  
 Golden redhorse 27-6-0  
 Hogsucker 0-1-0  
 Gizzard shad 0-60-0  
 Bluntnose minnow 75-0-0  
 Common shiner 15-27-0  
 Rosefin shiner 4-0-0  
 Stonecat 0-2-0  
 Blackside darter 1-0-0  
 Johnny darter 1-0-0  
 Fantail darter 14-0-0  
 Rainbow darter 9-0-0  
 Orangethroat darter 2-0-0

RICHLAND CREEK (Pendleton County)  
10/23/69  
Location - 2.5 miles from mouth  
Method - NaCN  
Stream length - 5.3 miles

Order IV  
Lgth. of sample area 65'  
Acreage - 0.09  
Qualitative

Richland Creek rises in northeastern Harrison County and flows northeast to join the Licking River approximately 1 1/2 miles below the mouth of North Fork of Licking River. This stream provides a locally important fishery for black basses and panfishes. Good access is provided by a county road which parallels most of this stream. It may be best fished from the bank or by wading with light spinning gear.

Chemical and Physical Characteristics

D.O. - 7.0 ppm  
pH - 7.6  
Total alkalinity - 182 ppm  
Temperature - 48° F.  
Average width - 40'  
Average depth - 1.5'  
Velocity - Nil  
Volume - N.D.  
Secchi disk - 24"  
Bottom type - boulders over bedrock  
Fish shelter - boulders and logs  
Shade - 25%

Fish Fauna

Largemouth bass	0-3-1
Spotted bass	1-1-2
Smallmouth bass	0-1-2
Green sunfish	2-10-5
Longear sunfish	0-9-3
Bluegill	0-2-3
Channel catfish	0-3-0
Golden redhorse	12-8-2
Black redhorse	1-0-0
White sucker	0-12-0
Spotted sucker	0-1-0
Hog sucker	1-0-1
Gizzard shad	0-56-18
Common shiner	2-6-0
Rosefin shiner	2-0-0
Mimic shiner	7-0-0
Rosyface shiner	7-0-0
Bluntnose minnow	56-0-0
Brook silverside	1-0-0
Johnny darter	4-0-0
Rainbow darter	7-0-0
Fantail darter	17-0-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

None

NORTH FORK LICKING RIVER (Bracken and  
Robertson Counties)  
7/1/69  
Location - Highway 539 bridge  
Method - Rotenone  
Stream length - 82.4 miles

Order VI  
Lgth. of sample area 200'  
Acreage - 0.32  
Qualitative

North Fork Licking River rises in the northeastern corner of Fleming County and flows generally westward through Mason County, ultimately entering Licking River near the southeastern corner of Pendleton County. This meandering, low gradient stream carries a heavy silt load due to the agriculture practices. Fishing is considered fair for drum, panfishes, bullhead and black basses in the early spring. A few carp and buffalo are taken during the summer when the fishing pressure is extremely light. Access in the lower section of North Fork is poor; however, the stream may be reached via Ky. 19 and Ky. 539 between Milford and Santa Fe. It may be best fished from the bank.

Chemical and Physical Characteristics

D.O. - 4.6 ppm  
 pH - 7.3  
 Total alkalinity - 194 ppm  
 Temperature - 77° F.  
 Average width - 65'  
 Average depth - 1.7'  
 Velocity - N.D.  
 Volume - N.D.  
 Secchi disk - 15"  
 Bottom type - rubble and silt  
 Fish shelter - logs, weeds and rocks  
 Shade - 5%

Fish Food Organisms

Ephemeroptera, trichoptera

Aquatic Vegetation

Justicia sp.

Fish Fauna

Spotted bass	1-0-0
Rock bass	1-3-1
Longear sunfish	22-18-5
Green sunfish	1-2-7
Yellow bullhead	3-0-0
Stonecat	1-3-0
Golden redhorse	3-0-0
Hog sucker	0-4-3
Silverjaw minnow	1-0-0
Creek chub	15-1-0
Bluntnose minnow	91-7-0
Stoneroller	18-7-0
Common shiner	13-1-0
Logperch	5-6-0
Blackside darter	1-0-0
Greenside darter	4-0-0
Banded darter	2-0-0
Rainbow darter	16-0-0
Fantail darter	9-0-0

WILLOW BRANCH. (Bracken County)  
 7/2/69  
 Location - three miles west of Milford  
 Method - Seine  
 Stream length - 3.6 miles

Order V  
 Lgth. of sample area 40'  
 Acreage - 0.02  
 Qualitative

This small stream rises near Powersville and flows southwest to join the North Fork Licking River. Black bass, suckers and panfishes are harvested from the lower two thirds of this stream in the spring.

Chemical and Physical Characteristics

D.O. - 10.6 ppm  
 pH - 8.4  
 Total alkalinity - 124 ppm  
 Temperature - 75° F.  
 Average width - 20'  
 Average depth - 1'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 22"  
 Bottom type - bedrock  
 Fish shelter - ledges  
 Shade - 5%

Fish Fauna

Spotted bass	2-1-0
White sucker	0-3-0
Stoneroller	2-2-0
Bluntnose minnow	29-0-0
Creek chub	1-1-0
Silverjaw minnow	3-0-0
Common shiner	39-4-0
Redfin shiner	4-0-0
Rosefin shiner	6-0-0
Greenside darter	2-0-0
Johnny darter	5-0-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

None

SHANNON CREEK (Mason County)  
10/31/69  
Location - Lowell Road bridge  
Method - NaCN  
Stream length - 8.8 miles

Order IV  
Lgth. of sample area 115'  
Acreage - 0.08  
Qualitative

This stream is silted in badly and there is no fishing except at the mouth.

Chemical and Physical Characteristics

D.O. - 6.4 ppm  
pH - 7.8  
Total alkalinity - 202 ppm  
Temperature - 40° F.  
Average width - 30'  
Average depth - 0.8'  
Velocity - Nil  
Volume - N.D.  
Secchi disk - clear  
Bottom type - gravel and sand  
Fish shelter - brush  
Shade - 5%

Fish Fauna

Green sunfish	8-25-15
Creek chub	23-1-0
Stoneroller	59-3-0
Bluntnose minnow	316-0-0
Silverjaw minnow	84-0-0
Common shiner	36-0-0
Rosefin shiner	13-0-0
Logperch	0-1-0
Blackside darter	12-0-0
Johnny darter	1-0-0
Rainbow darter	13-0-0
Fantail darter	4-0-0

Fish Food Organisms

Ephemeroptera, diptera

Aquatic Vegetation

None

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MILL CREEK (Mason County)  
10/30/69  
Location - approximately three miles upstream  
from mouth  
Method - NaCN  
Stream length - 13.0 miles

Order IV  
Lgth. of sample area 100'  
Acreage - 0.08  
Qualitative

Very little fishing is done on this stream and this is restricted to the section near the mouth.

Chemical and Physical Characteristics

D.O. - 2.6 ppm  
pH - 7.5  
Total alkalinity - 205 ppm  
Temperature - 48° F.  
Average width - 35'  
Average depth - 1.5'  
Velocity - Nil  
Volume - N.D.  
Secchi disk - clear  
Bottom type - gravel, sand and silt  
Fish shelter - undercut banks and brush  
Shade - 50%

Fish Fauna

Largemouth bass	7-1-2
Longear sunfish	6-134-1
Green sunfish	0-59-29
Bluegill	3-3-9
Redear sunfish	0-0-7
Spotted sucker	0-0-3
White sucker	0-63-17
Bluntnose minnow	2-55-0
Common shiner	0-14-0
Rosefin shiner	26-0-0
Blackside darter	1-0-0
Johnny darter	5-0-0
Rainbow darter	4-0-0
Fantail darter	3-0-0

Fish Food OrganismsAquatic Vegetation

None

NORTH FORK LICKING RIVER (Mason County)  
 10/30/69  
 Location - 1.5 miles above Highway 68 bridge  
 Method - NaCN  
 Stream length - 82.4 miles

Order V  
 Lgth. of sample area 170'  
 Acreage - 0.22  
 Qualitative

The best fishing in the Mason County section of this stream is from Highway 68 bridge upstream for approximately three miles. Access in this section is good to fair.

Chemical and Physical Characteristics

D.O. - 4.4 ppm  
 pH - 7.4  
 Total alkalinity - 261 ppm  
 Temperature - 43° F.  
 Average width - 60'  
 Average depth - 3.5'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 16"  
 Bottom type - silt  
 Fish shelter - logs and brush  
 Shade - 75%

Fish Fauna

Spotted bass	0-1-0
White crappie	51-0-1
Black crappie	0-0-1
Warmouth	15-3-5
Bluegill	14-2-2
Longear sunfish	41-40-4
Green sunfish	3-6-0
Spotted sucker	0-7-3
Gizzard shad	0-0-15
Carp	0-0-1
Rosefin shiner	4-0-0

Fish Food OrganismsAquatic Vegetation

None

BEAVER CREEK (Harrison County)  
 10/1/69  
 Location - one mile below mouth of Brushy Fork  
 Method - NaCN  
 Stream length - 15.5 miles

Order V  
 Lgth. of sample area 156'  
 Acreage - 0.22  
 Qualitative

Beaver Creek rises in northwest Nicholas County and flows northwest into Harrison County then north to join Licking River above Claysville. This stream provides good fishing for spotted bass, panfishes and suckers. Crappie are also common in the creel, however, none were taken in the following study. Access is good along Highway 62 west of Claysville.

Chemical and Physical Characteristics

D.O. - 5.4 ppm  
 pH - 7.4  
 Total alkalinity - 188 ppm  
 Temperature - 58° F.  
 Average width - 56'  
 Average depth - 2'

Fish Fauna

Spotted bass	8-6-2
Rock bass	0-0-1
Redear sunfish	0-0-1
Green sunfish	9-19-8
Longear sunfish	47-42-0
Bluegill	0-1-1

Chemical and Physical Characteristics (cont.)

Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 30"  
 Bottom type - rubble  
 Fish shelter - weeds  
 Shade - 75%

Fish Food Organisms

Ephemeroptera, gastropoda

Fish Fauna (cont.)

Golden redbhorse	0-1-2
Hog sucker	0-1-0
Bluntnose minnow	244-0-0
Common shiner	29-3-0
Rosefin shiner	8-0-0
Logperch	3-1-0

Aquatic Vegetation

Justicia sp.

BRUSHY FORK (Harrison County)  
 10/1/69  
 Location - 0.25 mile upstream from mouth  
 Method - Seine  
 Stream length - 3.1 miles

Order III  
 Lgth. of sample area 100'  
 Acreage - 0.08  
 Qualitative

Brushy Fork rises approximately two miles south of Venus and flows north to join Beaver Creek near the junction of Beaver Baptist Road and Brush Fork Road. Brushy Fork has a limited potential as a fishing stream but it does provide a sucker, longear sunfish and green sunfish fishery in the spring.

Chemical and Physical Characteristics

D.O. - 12.0 ppm  
 pH - 8.0  
 Total alkalinity - 146 ppm  
 Temperature - 67° F.  
 Average width - 30'  
 Average depth - 0.5'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - clear  
 Bottom type - bedrock and rubble  
 Fish shelter - rubble and logs  
 Shade - 25%

Fish Food Organisms

Ephemeroptera, decapoda

Fish Fauna

Spotted bass	2-0-0
Longear sunfish	0-5-0
Green sunfish	0-26-0
White sucker	0-1-0
Creek chub	0-9-0
Bluntnose minnow	23-0-0
Rosefin shiner	8-4-0
Common shiner	4-0-0
Stonecat	0-2-0
Blackside darter	1-0-0
Johnny darter	3-0-0
Rainbow darter	1-0-0
Fantail darter	36-0-0

Aquatic Vegetation

None

LICKING RIVER (Robertson and Nicholas Counties)  
 7/3/69  
 Location - two miles off Highway 62 on Harding  
 Road (Robertson County)  
 Method - Rotenone

Order VII  
 Lgth. of sample area 83'  
 Acreage - 0.13  
 Qualitative

That section of Licking River, from where it enters Pendleton County upstream to where it leaves Fleming County, is similar to the Pendleton County section except the riffles are somewhat deeper and faster. Fishing, in this

section, is good for channel catfish, carp, buffalo, drum, panfishes and black basses. There is a medium amount of fishing pressure, mostly from the bank, however, some wading and boat fishing is done. Access is good at Blue Licks, mouth of Elk Creek, Crayton and Upper Blue Licks.

Chemical and Physical Characteristics

D.O. - 6.0 ppm  
 pH - 6.7  
 Total alkalinity - 101 ppm  
 Temperature - 65° F.  
 Average width - 67'  
 Average depth - 2.4'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 24"  
 Bottom type - bedrock and rubble  
 Fish shelter - undercut banks and logs  
 Shade - 10%

Fish Fauna

Spotted bass	1-0-0
Hog sucker	2-0-0
Channel catfish	1-0-0
Yellow bullhead	2-0-0
<u>Noturus</u> sp.	2-0-0
Drum	0-0-1
Gizzard shad	0-0-2
Carp	12-0-0
Stoneroller	7-0-0
Common shiner	1-0-0
Creek chub	15-0-0
River chub	0-1-0
Silverjaw minnow	2-0-0
Logperch	1-0-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

None

LICKING RIVER (Robertson and Nicholas Counties)  
 9/12/69  
 Location - mouth of Elk Creek (Nicholas County)  
 Method - Rotenone

Order VII  
 Lgth. of sample area 72'  
 Acreage - 0.04  
 Qualitative

Chemical and Physical Characteristics

D.O. - 5.8 ppm  
 pH - N.D.  
 Total alkalinity - 91 ppm  
 Temperature - 66° F.  
 Average width - 26'  
 Average depth - 2.5'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 20"  
 Bottom type - silt and rubble  
 Fish shelter - logs  
 Shade - 25%

Fish Fauna

Spotted bass	5-1-0
Rock bass	1-0-0
Bluegill	2-0-0
Longear sunfish	5-2-1
Channel catfish	1-1-0
Yellow bullhead	1-0-0
Golden redhorse	1-0-1
River carpsucker	0-1-0
Quillback	1-0-0
Gizzard shad	79-23-0
Longnose gar	0-1-0
Emerald shiner	10-0-0
Bluntnose minnow	6-0-0
Logperch	2-0-0

Fish Food Organisms

Aquatic Vegetation

None

JOHNSON CREEK (Robertson County)  
7/2/69  
Location - below Mt. Pleasant Road bridge  
Method - Rotenone  
Stream length - 20.4 miles

Order IV  
Lgth. of sample area 200'  
Acreage - 0.28  
Qualitative

Johnson Creek rises near the Mason-Fleming County line and flows west through Fleming County then through Robertson County to join the Licking River approximately 1 1/2 miles southwest of Piqua. Riffles on the lower end of this stream have been bulldozed out for approximately one mile to improve runoff. This stream is characterized by long, shallow pools and short riffles, and it may best be fished from the bank or by wading. Fishing in Johnson Creek is considered fair for black basses and panfish. Access is considered poor for this stream, however, the stream may be reached via Highway 617 west of Piqua and from bridges on Route 616 and 1029 east of Piqua.

Chemical and Physical Characteristics

D.O. - 4.4 ppm  
pH - 7.1  
Total alkalinity - 200 ppm  
Temperature - 67° F.  
Average width - 60'  
Average depth - 1.5'  
Velocity - N.D.  
Volume - N.D.  
Secchi disk - 22"  
Bottom type - gravel and silt  
Fish shelter - undercut banks and logs  
Shade - 95%

Fish Fauna

Spotted bass	2-0-0
Rock bass	0-2-1
Longear sunfish	0-4-0
Green sunfish	5-15-5
Yellow bullhead	5-0-0
Stonecat	0-1-0
Golden redhorse	5-15-5
White sucker	35-53-0
Bluntnose minnow	25-0-0
Creek chub	87-52-5
Stoneroller	60-31-0
Common shiner	222-121-0
Redfin shiner	8-0-0
Logperch	1-4-0
Blackside darter	1-0-0
Johnny darter	11-0-0
Fantail darter	5-0-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

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LICKING RIVER (Fleming County)

Order VII

That section of the Licking River which forms the southwestern border of Fleming County is characterized by long, fast, crooked riffles and long pools which provide good float fishing. Fishing is considered fair to good for catfish, rock bass, black bass and carp. Access is available at the mouth of Fox Creek, Highway 111 (Wyoming) and Upper Blue Licks.

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FLEMING CREEK (Fleming County)  
 6/18/69  
 Location - one mile upstream from mouth of  
 Allison Creek, off Highway 697  
 Method - Rotenone  
 Stream length - 38.0 miles

Order IV  
 Lgth. of sample area 188'  
 Acreage - 0.25  
 Qualitative

Fleming Creek rises southeast of Beechburg and flows westerly to join the Licking River approximately one mile southwest of Pleasant Valley in Nicholas County. From the mouth upstream to the Highway 11 bridge the gradient is moderate. This 20-mile section provides the best fishing, especially for rock bass and smallmouth bass. In the following study, however, no smallmouth bass were taken. Other species which occur frequently in the creel include largemouth bass, panfishes, crappie and carp. This stream may be fished from the bank by wading or from small boats. The fishing pressure on Fleming Creek is heavy and the success is considered fair to good. Access is available on Highways 11, 57, 559 and 32.

Chemical and Physical Characteristics

D.O. - 4.8 ppm  
 pH - 7.1  
 Total alkalinity - 155 ppm  
 Temperature - 66° F.  
 Average width - 54'  
 Average depth - 1.4'  
 Velocity - 0.4 ft./sec.  
 Volume - 4.8 cfs  
 Secchi disk - 29"  
 Bottom type - rubble and gravel  
 Fish shelter - weeds  
 Shade - 50%

Fish Food Organisms

Ephemeroptera, gastropoda

Aquatic Vegetation

Justicia sp.

Fish Fauna

Spotted bass	0-1-0
Rock bass	4-0-2
Bluegill	1-1-16
Longear sunfish	32-49-0
Green sunfish	41-56-0
Hybrid sunfish	0-1-0
White sucker	0-1-0
Stoneroller	1-0-0
Bluntnose minnow	228-0-0
Creek chub	12-0-0
Common shiner	0-30-68
Redfin shiner	2-0-0
Rosefin shiner	2-0-0
<u>Notropis sp.</u>	0-1-0
Johnny darter	6-0-0
Rainbow darter	43-0-0
Orangethroat darter	11-0-0
Fantail darter	45-0-0

WILSON RUN (Fleming County)  
 6/18/69  
 Location - Highway 559 bridge  
 Method - Seine  
 Stream length - 3.3 miles

Order III  
 Lgth. of sample area 200'  
 Acreage - 0.11  
 Qualitative

Wilson Run flows into Fleming County approximately 600 yards south of Highway 559, east of Flemingsburg. The lower section of this stream provides fair fishing - during the spring - for spotted bass, panfishes and bullheads. Bank fishing is the only method used on this stream. Access is provided via Highway 559.

Chemical and Physical Characteristics

D.O. - 9.0 ppm  
 pH - 6.5  
 Total alkalinity - 185 ppm  
 Temperature - N.D.  
 Average width - 25'  
 Average depth - 0.8'  
 Velocity - N.D.  
 Volume - N.D.  
 Secchi disk - 6" (muddy)  
 Bottom type - muck and gravel  
 Fish shelter - weeds  
 Shade - none

Fish Food Organisms

Decapoda

Fish Fauna

Spotted bass	0-3-0
Bluegill	5-3-0
Green sunfish	0-7-0
Longear sunfish	12-5-0
Yellow bullhead	1-1-0
Stoneroller	0-1-0
Bluntnose minnow	17-0-0
Common shiner	1-1-1
Redfin shiner	36-0-0
Rosefin shiner	52-0-0
Johnny darter	1-0-0
Brook silverside	9-5-0

Aquatic Vegetation

Justicia sp., Sagittaria  
cuneata, Scirpus subterminalis

FOX CREEK (Fleming County)  
 6/19/69  
 Location - 0.5 mile upstream from mouth of  
                   Big Run  
 Method - Seine  
 Stream length - 26.3 miles

Order V  
 Lgth. of sample area 600'  
 Acreage - 0.28  
 Qualitative

Fox Creek rises in eastern Fleming County near the Lewis and Rowan County line and flows southwest to join Licking River approximately one and one-half miles northwest of Grange City. The SCS has proposed stream channel alteration from Martin Mill Branch to Muses Mill (7.3 miles) and the construction of five structures on this watershed. One watershed lake, on Sand Lick, is complete. The lower section of this stream (from mouth to Plummers Landing), provides fair fishing for flathead catfish, channel catfish and carp. The middle section of this stream (from Plummers Landing upstream to Muses Mill) provides fair fishing for black bass, rock bass and bullheads; however, the latter species was not taken in the following study. This stream can be fished from the bank or while wading. A small boat can be used in pools on the lower end of this stream. Access to the middle and upper section of Fox Creek is provided by Highways 1013 and 32 while Highways 158 and 211 provide the primary means of access to the lower section of this stream.

Chemical and Physical Characteristics

D.O. - 4.2 ppm  
 pH - 6.8  
 Total alkalinity - 37 ppm  
 Temperature - 64° F.  
 Average width - 20'  
 Average depth - 2'  
 Velocity - N.D.  
 Volume - N.D.

Fish Fauna

Spotted bass	0-1-2
Rock bass	1-3-1
Bluegill	1-1-0
Longear sunfish	0-1-0
Golden redhorse	0-2-0
Hog sucker	1-0-0
Grass pickerel	1-0-0
Creek chub	14-0-0

Chemical and Physical Characteristics (cont.)Fish Fauna (cont.)

Secchi disk - 20"  
 Bottom type - gravel and silt over bedrock  
 Fish shelter - undercut banks, logs and brush  
 Shade - 60%

Stoneroller	2-1-0
Brook silverside	12-0-0
Bluntnose minnow	3-0-0
Silverjaw minnow	4-0-0
Common shiner	65-17-0
Redfin shiner	20-0-0
Rosefin shiner	4-0-0
Blackside darter	2-0-0
Rainbow darter	2-0-0
Fantail darter	1-0-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

Justicia sp., Sparganium sp.

SAND LICK (Fleming County)

6/19/69

Location - 100 yards below bridge on road  
 between Goddard and Wallingford

Method - Rotenone

Stream length - 9.7 miles

Order IV

Lgth. of sample area 133'

Acreage - 0.13

Qualitative

The headwaters of this tributary to Fox Creek is impounded by a small dam. That section from the mouth to the dam provides fair fishing for crappie, largemouth bass, panfishes and bullheads. The fishing pressure is medium to heavy mainly from the bank. Access is provided via Highway 32 and roads off Highway 32.

Chemical and Physical CharacteristicsFish Fauna

D.O. - 4.6 ppm  
 pH - 7.4  
 Total alkalinity - 108 ppm  
 Temperature - 70° F.  
 Average width - 45'  
 Average depth - 2.6'  
 Velocity - N.D.  
 Volume - N.D.  
 Secchi disk - 18"  
 Bottom type - bedrock  
 Fish shelter - brush  
 Shade - 60%

Largemouth bass	3-0-1
Grass pickerel	0-1-0
Bluegill	22-18-3
White crappie	0-7-0
Longear sunfish	8-6-0
Green sunfish	3-3-0
Yellow bullhead	0-3-5
White sucker	5-18-8
Spotted sucker	0-2-12
Gizzard shad	0-0-3
Bluntnose minnow	10-0-0
Brook silverside	5-0-0
Common shiner	3-1-0
Logperch	0-1-0
Rainbow darter	1-0-0

Fish Food OrganismsAquatic Vegetation

Justicia sp.

SLATE CREEK (Menifee and Bath Counties)  
 6/26/69  
 Location - approximately one mile below  
                   Howards Mill  
 Method - Rotenone  
 Stream length - 59.3 miles

Order V  
 Lgth. of sample area 252'  
 Acreage - 0.45  
 Quantitative  
 Ref: Carter 1950  
 553 fish/acre;  
 1,006 lbs./acre

Slate Creek is formed by the juncture of East Fork and West Fork of Slate Creek, in Menifee County. It flows west through Montgomery County and joins the Licking River near Wyoming, Kentucky. Slate Creek is normally a series of long pools connected by sand and gravel bars. Sport fishing in this stream is considered fair. The fishing pressure is heavy in the spring but extremely light during the rest of the year. A large number of crappie are taken from that section of stream above Howards Mill Dam. Other species which are likely to compose a creel from Slate Creek include drum, carp, black basses and panfishes. Studies conducted by B. T. Carter, Kentucky Division of Fisheries, in 1949 revealed that the water quality of Slate Creek was high. The estimated standing crop was 181.08 pounds per acre. Longear sunfish dominated the samples numerically while drum and carp together composed 64% of the total weight. Access to Slate Creek is provided via Highway 111 from Wyoming to Owingsville in Bath County and Howards Mill Road, Highway 60 and other state and county roads in Montgomery County.

Chemical and Physical Characteristics

D.O. - 2.8 ppm  
 pH - 6.9  
 Total alkalinity - 112 ppm  
 Temperature - 66° F.  
 Average width - 81'  
 Average depth - 3.3'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 24"  
 Bottom type - bedrock, clay and silt  
 Fish shelter - logs  
 Shade - 60%

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

Justicia sp.

Fish Fauna

Largemouth bass	0-1-1
Black crappie	0-3-2
Rock bass	2-4-3
Bluegill	2-14-2
Green sunfish	0-4-0
Longear sunfish	0-19-0
Warmouth	0-3-1
Golden redhorse	0-3-2
White sucker	0-9-1
Spotted sucker	0-14-3
Carp	0-0-104
Yellow bullhead	0-1-1
Drum	0-0-3
Bluntnose minnow	12-0-0
Stoneroller	7-1-0
Common shiner	0-7-0
Logperch	0-4-0
Blackside darter	1-0-0
Johnny darter	1-0-0
Rainbow darter	3-0-0
Fantail darter	5-0-0
Brook silverside	5-0-0

LITTLE SLATE CREEK (Montgomery County)  
 Stream length - 2.5 miles

Order III

This small tributary to Slate Creek provides good sucker gigging in the spring and some pole and line fishing for panfishes at the mouth.

SLATE CREEK (Menifee County)  
6/24/69  
Location - 1/4 mile upstream from Montgomery  
County line  
Method - Seines and cresol  
Stream length - 59.3 miles

Order V  
Lgth. of sample area 150'  
Acreage - 0.09  
Qualitative

There has been no fishing in that section of Slate Creek near Means, Kentucky for years due to the silting in of the small potholes.

Chemical and Physical Characteristics

D.O. - 5.6 ppm  
pH - 7.3  
Total alkalinity - 100 ppm  
Temperature - 65° F.  
Average width - 25'  
Average depth - 0.5'  
Velocity - Nil  
Volume - N.D.  
Secchi disk - clear  
Bottom type - gravel and silt over bedrock  
Fish shelter - rock and brush  
Shade - 60%

Fish Fauna

Smallmouth bass	0-1-0
Green sunfish	0-1-0
Longear sunfish	0-1-0
Bluntnose minnow	12-0-0
Stoneroller	9-10-0
Creek chub	30-1-0
Common shiner	35-19-0
Redfin shiner	6-0-0
Silverjaw minnow	5-0-0
Hog sucker	0-1-0
Fantail darter	12-0-0

Fish Food Organisms

Trichoptera, ephemeroptera

Aquatic Vegetation

Justicia sp.

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LICKING RIVER (Rowan County)

Order VII  
Ref.: Project F-16-R  
Project Progress Report 1960

That section of the Licking River which forms the western boundary of Rowan County is the heart of the musky waters of this river. Three of the major tributaries (North Fork Creek, North Fork of Triplett Creek and Beaver Creek) in this section of the river also support significant musky populations. Fifty miles of the river, along with the natural musky habitat of North Fork Creek and Beaver Creek will be impounded by Cave Run Reservoir by 1972.

Fish population studies conducted under D-J project F-16-R in 1959 revealed a standing crop of 55.4 pounds of fish per acre (998 fish per acre). Commercial fishes made up 61.4 percent of the total weight and were followed by game fishes, 14.4 percent; forage fishes, 13.4 percent; panfishes, 6.1 percent; food fishes, 3.4 percent; and predatory fishes, 1.3 percent. Forage fishes dominated the sample numerically (83.8 percent of the total crop).

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SALT LICK CREEK (Menifee and Bath Counties)  
Stream length - 16.9 miles

Order IV

Salt Lick rises approximately one mile northwest of Frenchburg and flows north to join the Licking River at Salt Lick. This stream provides fair fishing for black bass, rock bass, longear sunfish and bullhead catfish. This

stream is fished primarily from the bank; however, some wading is done. The two primary sources of pollution are littering or dumping and shoreline cleaning. Access is good at Salt Lick and in two locations above Clear Creek. The best fishing section is from the mouth upstream to Clear Creek.

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TRIPLETT CREEK (Rowan County)  
Stream length - 4.7 miles

Order VI

The fishing pressure is heavy on the lower two miles of this stream, especially during the spring. Sometimes musky are taken from this stream near the mouth. Triplett Creek often has a bad odor caused by the sewage pollution originating from the South Fork of Triplett Creek.

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NORTH FORK OF TRIPLETT CREEK (Rowan County)  
Stream length - 22 miles

Order V

Ref.: Project F-31-R  
Progress Report 1967-69

During 1967-69, F-31-R personnel sampled 2.59 acres of this stream with NaCN and collected fish at the rate of 25.3 pounds per acre. A total of 51 species of fish was collected from this creek during 1967-69 and these included muskellunge, smallmouth bass, largemouth bass, spotted bass, white crappie, black crappie, rock bass, bluegill, warmouth, channel catfish and flathead catfish. Of the fish population samples from the total of 2.59 acres, game fishes comprised 14.1% of the sample, by weight; predatory fishes comprised 1.9%; panfishes comprised 30.7%; commercial fishes comprised 45.9%, and forage fishes comprised 7.5%. This stream was once known as one of the finest fishing streams in the Commonwealth and fishing for bass and musky was regarded as excellent (Clark, 1941); however, by the 1960's the quality of fishing in this stream had degenerated considerably, apparently due to pollution and possibly increased fishing pressure. Fishing for muskellunge and black bass is now rated as only fair, however, the stream still offers good fishing for rock bass and bullheads. The lower 19 miles of this creek provides the musky fishery.

North Fork of Triplett Creek receives a limited amount of silt pollution from the farming in the flood plain along the creek.

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SOUTH FORK OF TRIPLETT CREEK (Rowan County)  
Stream length - 15.1 miles

Order V

This stream is of little fishery importance. It receives some sewage pollution from Morehead. That section of this stream which goes through Morehead is scheduled for channelization.

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BEAVER CREEK (Menifee County)  
Stream length - 17.0 miles

Order V

Ref.: F-31-R  
Progress Report 1967-69

During 1967-69, F-31-R personnel sampled 1.96 acres of pool habitat in this creek with NaCN and collected fish at a rate of 35.6 pounds per acre. By weight, game fishes comprised 21.7% of the fish population; predatory fishes

comprised 0.2%; panfishes comprised 40.8%; commercial fishes comprised 26.8%; and forage fishes comprised 10.5%. F-31-R personnel collected 49 species of fish from this creek during 1967-69 and these included muskellunge, smallmouth bass, largemouth bass, spotted bass, white crappie, black crappie, rock bass, bluegill, warmouth, channel catfish and flathead catfish.

This stream receives light to moderate fishing pressure and most of the fishing consists of still fishing from the bank. Fishing is fair for largemouth bass, spotted bass, white crappie and muskellunge. The best fishing is probably for largemouth bass. The best fishing section is the lower 7 miles. Musky fishing is best during March - May in the lower 3 miles of the creek while bass fishing is better from mile 3 to mile 10.

Monthly physico-chemical studies conducted by F-31-R personnel on this creek during 1967-68 revealed the water to be of high quality. This stream is not polluted except for some limited siltation from normal agricultural practices.

This stream is scheduled to be partially impounded by Cave Run Reservoir as of 1972. All of the natural musky habitat will be impounded.

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NORTH FORK CREEK (UPPER NORTH FORK OF THE  
LICKING RIVER) (Morgan and Rowan Counties)  
Stream length - 15.6 miles

Order V  
Ref.: F-31-R  
Progress Report 1967-69

This fairly remote stream is one of the most picturesque and highest quality streams in the drainage. During 1967-69, F-31-R personnel sampled 2.55 acres of pool habitat in this stream with NaCN and collected fish at a rate of 34.7 pounds per acre. A total of 50 species of fish were collected from this stream which included muskellunge, smallmouth bass, largemouth bass, spotted bass, white crappie, black crappie, rock bass, bluegill, warmouth, channel catfish, flathead catfish and rainbow trout. By weight, game fishes comprised 19.6% of the fish population; food fishes comprised 3.5%; predatory fishes comprised 0.6%; panfishes comprised 31.3%; commercial fishes comprised 31.3%; and forage fishes comprised 13.7%. Fishing is relatively good for muskellunge and fairly good for smallmouth bass, spotted bass and rock bass.

Monthly physico-chemical studies conducted on this creek by F-31-R personnel during 1967-68 revealed the water to be of high quality. This stream is not polluted except for some limited siltation from normal agricultural practices.

North Fork Creek is scheduled to be partially impounded by Cave Run Reservoir as of 1972. All of the natural musky habitat will be impounded.

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CRANEY CREEK (Rowan County)  
Stream length - 8 miles

Order IV

Craney Creek rises approximately one mile southwest of Elliottville and flows southwest to join North Fork Creek at Craney. This small stream is located in a remote section of the Daniel Boone National Forest and it is stocked with trout by the U. S. Forest Service. Fishing with light tackle while wading is recommended. Access is limited but the stream can be reached via a road off Highway 173 southeast of Elliottville.

LICKING RIVER (Morgan County)  
 6/11/69  
 Location - Mussel Shoals  
 Method - Rotenone  
 Stream length - 47 miles in Morgan County

Order VI  
 Lgth. of sample area 200'  
 Acreage - 0.34  
 Qualitative

Sport fishing in the Licking River in Morgan County is considered good for suckers, channel catfish, black bass and rock bass. Carp are also taken however, none were recorded in the following study. The fishing pressure is heavy during the spring and medium to light during the remainder of the year. The best sections to fish are Mussel Shoals and the mouth of Blackwater Creek. Access is available via Highway 985 bridge at Mussel Shoals; however, to reach the mouth of Blackwater Creek one must walk in or boat in via the river.

Chemical and Physical Characteristics

D.O. - 6.6 ppm  
 pH - 6.5  
 Total alkalinity - 48 ppm  
 Temperature - 65° F.  
 Average width - 75'  
 Average depth - 4.2'  
 Velocity - 0.82 ft./sec.  
 Volume - 0.74 cfs  
 Secchi disk - 22"  
 Bottom type - rubble, sand and silt  
 Fish shelter - undercut banks and logs  
 Shade - 40%

Fish Fauna

Spotted bass	4-0-0
Rock bass	2-3-3
Longear sunfish	2-1-0
Channel catfish	0-0-1
Stonecat	2-18-0
<u>Noturus</u> sp.	30-4-0
Golden redhorse	0-11-3
Black redhorse	0-8-4
Shorthead redhorse	0-2-3
Hog sucker	13-42-0
River chub	36-21-0
Stoneroller	56-14-0
Gizzard shad	0-2-0
Bluntnose minnow	5-0-0
Creek chub	21-0-0
Common shiner	9-0-0
Rosyface shiner	16-0-0
Logperch	8-4-0
Channel darter	7-0-0
Slenderhead darter	0-1-0
Blackside darter	2-4-0
Greenside darter	1-2-0
Banded darter	6-0-0
Fantail darter	3-0-0

Fish Food Organisms

Ephemeroptera, diptera

Aquatic Vegetation

Justicia sp.

BLACKWATER CREEK (Morgan County)  
 6/12/69  
 Location - mouth of Baldwin Branch off  
                   Highway 772  
 Method - Rotenone  
 Stream length - 15 miles

Order V  
 Lgth. of sample area 125'  
 Acreage - 0.13  
 Qualitative

Blackwater Creek rises in southwestern Morgan County and flows north to join Licking River approximately one mile northwest of Kellacey, Kentucky. This remote stream has an excellent aesthetic value and offers good to fair fishing for black basses, panfishes and suckers. Catfish, not recorded in the following study, are also included in the creel. The best fishing section on this stream is from the mouth upstream approximately six miles. Fishing with light gear from the bank or while wading is recommended. Access to the fishing



section of Blackwater Creek is limited to one gravel road east from Highway 772 and by boat via Licking River. Slightly over 2 miles of this stream will be impounded by Cave Run Reservoir during the seasonal pool period.

Chemical and Physical Characteristics

D.O. - 5.2 ppm  
 pH - 6.5  
 Total alkalinity - 42 ppm  
 Temperature - 66° F.  
 Average width - 40'  
 Average depth - 2.3'  
 Velocity - 0.5 ft./sec.  
 Volume - 3.0 cfs  
 Secchi disk - 30"  
 Bottom type - rubble and gravel  
 Fish shelter - undercut banks, boulders and brush  
 Shade - 90%

Fish Fauna

Largemouth bass	1-0-1
Grass pickerel	1-2-1
Rock bass	3-0-1
Bluegill	3-1-0
Longear sunfish	0-3-0
Spotted sucker	1-7-0
Golden redhorse	0-8-1
White sucker	1-6-0
Hog sucker	0-7-0
Noturus sp.	2-0-0
Stonecat	1-0-0
Gizzard shad	0-8-0
Stoneroller	5-0-0
Creek chub	18-2-0
Bluntnose minnow	4-0-0
Mottled sculpin	6-0-0
Common shiner	16-4-0
Silver shiner	0-9-0
Redfin shiner	1-0-0
Silverjaw minnow	2-0-0
Logperch	2-4-0
Blackside darter	14-0-0
Johnny darter	11-0-0
Rainbow darter	1-0-0
Fantail darter	40-0-0

Fish Food Organisms

Ephemeroptera, gastropoda, decapoda

Aquatic Vegetation

Justicia sp.

GRASSY CREEK (Morgan County)

8/12/69

Location - approximately one mile southwest  
 of Woodsbend

Method - Seine

Stream - 9.3 miles

Order V

Lgth. of sample area - N.D.

Acreage - N.D.

Qualitative

Grassy Creek rises in the southern part of Morgan County and flows north to join the Licking River approximately 1.25 miles above Mussel Shoals. This stream provides fair fishing for black basses, panfishes and suckers. Catfish are also included in the creel; however, none were taken in the following study. The fishing pressure is light and the best method is using light gear from the bank. Access to this stream is provided by Highway 205 which parallels a large section of Grassy Creek. The lower 2.5 miles of this stream will be impounded by Cave Run Reservoir during the seasonal pool period.

Chemical and Physical Characteristics

D.O. - 5.2 ppm  
 pH - 6.2  
 Total alkalinity - 83 ppm  
 Temperature - 74° F.  
 Average width - 40'  
 Average depth - 2.0'  
 Velocity - N.D.  
 Volume - N.D.

Fish Fauna

Spotted bass	0-7-0
Grass pickerel	1-0-0
Rock bass	2-0-3
White sucker	0-2-0
Hog sucker	2-0-0
Golden redhorse	0-3-0
Stoneroller	55-0-0
Bluntnose minnow	5-0-0

Chemical and Physical Characteristics (cont.)

Secchi disk - 30"  
 Bottom type - boulders, rubble and silt  
 Fish shelter - boulders, ledges and brush  
 Shade - 50%

Fish Fauna (cont.)

Silverjaw minnow	20-0-0
Creek chub	17-12-0
Common shiner	21-6-0
Rosyface shiner	8-0-0
Greenside darter	8-0-0
Rainbow darter	1-0-0
Mottled sculpin	4-0-0

Fish Food Organisms

Ephemeroptera, gastropoda

Aquatic Vegetation

Justicia sp.

## CANNEY CREEK (Morgan County)

8/13/69

Location - one mile from mouth

Method - Seine

Stream length - 15.2 miles

Order IV

Lgth. of sample area 200'

Acreage - 0.17

Qualitative

Caney Creek rises in southern Morgan County and flows north to its juncture with Licking River approximately three miles west of West Liberty. In the spring this stream provides good fishing for black bass, panfishes and suckers however during the summer and fall fishing is poor due to low water. This stream can best be fished from the bank using live bait. Good access is provided via Highway 191 which parallels Caney Creek its entire length.

Chemical and Physical Characteristics

D.O. - 5.6 ppm  
 pH - 6.4  
 Total alkalinity - 90 ppm  
 Temperature - 62° F.  
 Average width - 35'  
 Average depth - 1.7'  
 Velocity - Nil  
 Volume - N.D.  
 Secchi disk - 20"  
 Bottom type - silt, sand and bedrock  
 Fish shelter - undercut banks, logs and brush  
 Shade - 90%

Fish Fauna

Spotted bass	0-1-0
Bluegill	0-1-0
Hog sucker	2-0-0
Golden redhorse	3-0-0
Stoneroller	136-4-0
Bluntnose minnow	75-0-0
Creek chub	27-5-0
Blacknose dace	1-0-0
Silverjaw minnow	14-0-0
Common shiner	147-0-0
<u>Notropis</u> sp.	153-7-0
Rosefin shiner	8-0-0
Rosyface shiner	17-0-0
Southern redbelly dace	1-0-0
Blackside darter	1-0-0
Greenside darter	1-0-0
Johnny darter	5-0-0
Banded darter	1-0-0
Variegated darter	2-0-0
Fantail darter	17-0-0
Mottled sculpin	1-0-0
Brindled madtom	4-0-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

None

ELK FORK (Morgan County)  
6/10/69  
Location - 0.75 mile below Mordica Branch  
Method - Rotenone  
Stream length - 14.7 miles

Order V  
Lgth. of sample area 100'  
Acreage - 0.14  
Qualitative

Elk Fork rises in northeastern Morgan County and flows westerly to join the Licking River approximately 1.75 miles below West Liberty. This moderate gradient stream flows through a relatively wide valley. Sport fishing is considered good for black basses, bluegill, crappie and channel catfish. Fishing pressure on this stream is medium. Recommended methods for fishing are from the bank or by wading. Highways 1161 and 172 provide good access.

Chemical and Physical Characteristics

D.O. - 7.8 ppm  
pH - 6.2  
Total alkalinity - 46 ppm  
Temperature - 64° F.  
Average width - 62'  
Average depth - 1.4'  
Velocity - 0.19 ft./sec.  
Volume - 3.24 cfs  
Secchi disk - 30"  
Bottom type - sand  
Fish shelter - brush and logs  
Shade - 5%

Fish Food Organisms

Ephemeroptera, decapoda, odonata

Aquatic Vegetation

Justicia sp.

Fish Fauna

Spotted bass	1-1-0
Grass pickerel	0-1-0
Bluegill	0-3-0
Longear sunfish	0-2-0
White sucker	14-6-1
Hog sucker	8-9-0
Golden redhorse	1-2-0
Spotted sucker	2-0-0
<u>Noturus</u> sp.	14-1-0
Stoneroller	73-95-0
Bluntnose minnow	162-69-0
River chub	0-1-0
Creek chub	31-97-1
Silverjaw minnow	35-0-0
Common shiner	360-42-0
Rosefin shiner	223-0-0
Redfin shiner	2-0-0
Logperch	4-10-0
Blackside darter	19-0-0
Johnny darter	19-0-0
Banded darter	16-0-0
Variegated darter	7-1-0
Fantail darter	18-0-0

WHITE OAK BRANCH (Morgan County)  
6/10/69  
Location - 500 yards from mouth  
Method - Seine  
Stream length - 0.6 mile

Order III  
Lgth. of sample area 70'  
Acreage - 0.008  
Qualitative

This small tributary to Williams Creek is of no fishing importance but does support a population of minnows.

Chemical and Physical Characteristics

D.O. - 8.2 ppm  
pH - 7.9

Fish Fauna

Creek chub	270-0-0
Silverjaw minnow	3-0-0

Chemical and Physical Characteristics (cont.)

Total alkalinity - 58 ppm  
 Temperature - 65° F.  
 Average width - 5'  
 Average depth - 0.5'  
 Velocity - 0.082 ft./sec.  
 Volume - 0.74 cfs  
 Secchi disk - clear  
 Bottom type - gravel and sand  
 Fish shelter - undercut banks and brush  
 Shade - 60%

Fish Fauna (cont.)

Blacknose dace 4-0-0  
 Johnny darter 1-0-0

Fish Food Organisms

Ephemeroptera, trichoptera,  
 megaloptera, decapoda

Aquatic Vegetation

Justicia sp.

## JOHNSON FORK (Magoffin County)

12/2/69

Location - approximately one mile below mouth  
 of Cow Creek

Method - NaCN

Stream length - 9.1 miles

## Order IV

Lgth. of sample area 140'

Acreeage - 0.20

Qualitative

Johnson Fork Creek rises in the southeastern tip of Morgan County and flows northeast to join Licking River approximately 1 1/4 miles below Elsie, Kentucky. Johnson Fork Creek provides fair fishing for panfishes, black bass, crappie, and bullheads. Bank fishing is the only method used to fish this stream and access is excellent along Highway 134 which parallels this stream for most of its length.

Chemical and Physical Characteristics

D.O. - 7.0 ppm  
 pH - 7.2  
 Total alkalinity - 57 ppm  
 Temperature - 34° F.  
 Average width - 25'  
 Average depth - 2.4'  
 Velocity - 0.66 ft./sec.  
 Volume - 2.17 cfs  
 Secchi disk - 14"  
 Bottom type - gravel, sand and silt  
 Fish shelter - undercut banks and brush  
 Shade - 20%

Fish Fauna

Spotted bass 0-1-0  
 Rock bass 1-1-0  
 Bluegill 2-3-0  
 Longear sunfish 15-13-2  
 Creek chub 6-0-0  
 Bluntnose minnow 11-0-0  
 Stoneroller 7-1-0  
Noturus sp. 0-1-0  
 Common shiner 1-0-0  
 Logperch 0-1-0  
 Blackside darter 7-0-0  
 Greenside darter 4-0-0  
 Johnny darter 3-0-0  
 Banded darter 5-0-0  
 Variegated darter 2-0-0  
 Fantail darter 2-0-0

Fish Food Organisms

Ephemeroptera, coleoptera, plecoptera

Aquatic Vegetation

None

COW CREEK (Magoffin County)  
5/30/69  
Location - near Stella, Kentucky  
Method - Rotenone  
Stream length - 2.4 miles

Order III  
Lgth. of sample area 100'  
Acreage - 0.02  
Qualitative

This is a tributary to Johnson Fork Creek. It is too small to be of any fishery significance except as a feeder stream.

Chemical and Physical Characteristics

D.O. - 8.2 ppm  
pH - 6.6  
Total alkalinity - 33 ppm  
Temperature - 67° F.  
Average width - 10'  
Average depth - 1'  
Velocity - 0.24 ft./sec.  
Volume - 2.16 cfs  
Secchi disk - clear  
Bottom type - rubble, gravel and silt  
Fish shelter - undercut banks  
Shade - 5%

Fish Fauna

Spotted bass	1-0-0
Longear sunfish	1-0-0
Bluntnose minnow	299-2-0
Creek chub	61-6-0
Silverjaw minnow	32-0-0
Common shiner	23-0-0
Blacknose dace	1-0-0
Stoneroller	37-0-0
Johnny darter	8-0-0
Fantail darter	10-0-0

Fish Food Organisms

Ephemeroptera, odonata

Aquatic Vegetation

None

MIDDLE FORK LICKING RIVER (Magoffin County)  
5/29/69  
Location - approximately one mile upstream  
from mouth  
Method - Rotenone  
Stream length - 2.6 miles

Order V  
Lgth. of sample area 95'  
Acreage - 0.06  
Qualitative

Middle Fork is formed by the juncture of Right Fork and Left Fork of Middle Fork. It flows north to join Licking River approximately 2.5 miles west of Salyersville. This stream carries a heavy silt load due mainly to poor farm practices such as the lack of cover crops and shoreline clearing. The sport fishery of this stream is poor however, sucker gigging is good in the spring.

Chemical and Physical Characteristics

D.O. - 7.2 ppm  
pH - 6.7  
Total alkalinity - 31 ppm  
Temperature - 62° F.  
Average width - 26'  
Average depth - 2'  
Velocity - 0.21 ft./sec.  
Volume - 11.3 cfs

Fish Fauna

Longear sunfish	1-0-0
Spotted sucker	1-1-0
White sucker	2-1-0
Hog sucker	7-9-0
Creek chub	114-12-0
Hornyhead chub	0-4-0
Stoneroller	18-0-0
Bluntnose minnow	5-0-0

Chemical and Physical Characteristics (cont.)

Secchi disk - 16"  
 Bottom type - silt  
 Fish shelter - undercut banks, brush and logs  
 Shade - 40%

Fish Fauna (cont.)

Common shiner	12-2-0
Blacknose dace	1-0-0
Greenside darter	4-0-0
Johnny darter	1-0-0
Variegated darter	3-0-0
Gilt darter	7-0-0
Fantail darter	12-0-0

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

None

## LEFT FORK OF MIDDLE FORK (Magoffin County)

5/29/69

Location - above Highway 30 bridge

Method - Seine and cresol

Stream length - 5.8 miles

## Order IV

Lgth. of sample area 100'

Acreage - 0.01

Qualitative

Historically there were a few good pools in this stream however, now this stream is silted in and there is no sport fishery.

Chemical and Physical Characteristics

D.O. - 8.4 ppm  
 pH - 6.6  
 Total alkalinity - 31 ppm  
 Temperature - 71° F.  
 Average width - 6'  
 Average depth - 0.5'  
 Velocity - 1.25 ft./sec.  
 Volume - 4.3 cfs  
 Secchi disk - clear  
 Bottom type - gravel and sand  
 Fish shelter - brush  
 Shade - 25%

Fish Fauna

Rock bass	1-0-0
Creek chub	23-0-0
Stoneroller	78-0-0
Silverjaw minnow	1-0-0
Blacknose dace	1-0-0
Bluntnose minnow	62-0-0
Johnny darter	1-0-0
Fantail darter	2-0-0

Fish Food Organisms

Ephemeroptera, decapoda

Aquatic Vegetation

None

## ELK CREEK (Magoffin County)

5/28/69

Location - 400 yards from mouth

Method - Cresol

Stream length - 1.3 miles in Magoffin County

## Order III

Lgth. of sample area 30'

Acreage - 0.01

Qualitative

This stream is too small to support a significant population of game fishes but fishing at the mouth is fair.

Chemical and Physical Characteristics

D.O. - 4.1 ppm  
 pH - 6.7

Fish Fauna

Green sunfish	0-1-0
Bluegill	1-0-0

Chemical and Physical Characteristics (cont.)

Total alkalinity - 48 ppm  
 Temperature - 64° F.  
 Average width - 15'  
 Average depth - 1.5'  
 Velocity - N.D.  
 Volume - N.D.  
 Secchi disk - 20"  
 Bottom type - gravel  
 Fish shelter - logs and brush  
 Shade - 75%

Fish Food Organisms

Ephemeroptera, decapoda

Fish Fauna (cont.)

Yellow bullhead 2-0-0  
 Longear sunfish 0-1-0  
 Least brook lamprey 1-4-0  
 Creek chub 12-3-0  
 Bluntnose minnow 5-0-0  
 Redfin shiner 3-0-0  
 Common shiner 2-2-0  
 Greenside darter 0-1-0  
 Johnny darter 1-0-0  
 Blackside darter 1-0-0

Aquatic Vegetation

None

## LICKING RIVER (Magoffin County)

5/28/69

Location - immediately above the Half  
 Mountain bridge

Method - Rotenone

Stream length - 59.5 miles in Magoffin County

Order VI

Lgth. of sample area 218'

Acreage - 0.79

Qualitative

Licking River in Magoffin County carries an extremely heavy silt load which is the result of man's poor land use practices. Fishing is considered fair for redhorse suckers, catfish (none taken in this study), black bass and panfish. The fishing pressure is light and the best method is from the bank or by wading. Access is good along Highway 7 which parallels much of the river in Magoffin County.

Chemical and Physical Characteristics

D.O. - 7.8 ppm  
 pH - 6.5  
 Total alkalinity - 27 ppm  
 Temperature - 62° F.  
 Average width - 48'  
 Average depth - 3.3'  
 Velocity - 0.1 ft./sec.  
 Volume - 17.2 cfs  
 Secchi disk - 18"  
 Bottom type - silt  
 Fish shelter - brush  
 Shade - 25%

Fish Food Organisms

Ephemeroptera

Aquatic Vegetation

None

Fish Fauna

Spotted bass 1-1-0  
 Rock bass 0-0-2  
 Longear sunfish 1-4-0  
 Grass pickerel 0-1-0  
 Bluegill 4-0-0  
 Noturus sp. 7-2-0  
 White sucker 0-2-0  
 Golden redhorse 1-0-1  
 Spotted sucker 0-1-0  
 Gizzard shad 0-0-2  
 Stoneroller 0-1-0  
 Creek chub 12-0-0  
 Bluntnose minnow 2-3-0  
 Brook silverside 3-0-0  
 Common shiner 5-0-0  
 Fantail darter 6-0-0  
 Johnny darter 21-0-0  
 Greenside darter 9-0-0  
 Banded darter 2-0-0  
 Blackside darter 6-0-0

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Brushy Fork	Harrison	3.10	III	43
Bullock Pen Creek	Kenton	4.52	III	17
Caney Creek	Morgan	15.20	IV	55
Cow Creek	Magoffin	2.40	III	58
Craney Creek	Rowan	8.00	IV	52
Cruises Creek	Kenton	12.59	IV	19
Elk Creek	Magoffin	1.38	III	59
Elk Fork	Morgan	14.70	V	56
Fleming Creek	Fleming	38.00	IV	46
Fork Lick Creek	Pendleton	7.5	V	26
Fox Creek	Fleming	26.30	V	47
Grassy Creek	Morgan	9.30	V	54
Grassy Creek	Pendleton	1.43	V	20
Grays Run	Harrison	5.10	III	29
Hinkston Creek	Bourbon - Nicholas	72.40	V	34
Hinkston Creek	Bourbon - Nicholas		V	35
Hinkston Creek	Montgomery		V	35
Houston Creek	Bourbon	22.40	IV	32
Indian Creek	Harrison	7.30	III	28
Johnson Creek	Robertson	20.40	IV	45
Johnson Fork Creek	Magoffin	9.10	IV	57
Kincaid Creek	Pendleton	11.22	IV	23
Left Fork Middle Fork Licking River	Magoffin	5.80	IV	59
Licking River	Pendleton	308.2	VII	23
Licking River	Kenton - Campbell		VII	17
Licking River	Robertson - Nicholas		VII	43
Licking River	Robertson - Nicholas		VII	44
Licking River	Fleming		VII	45
Licking River	Rowan		VII	50
Licking River	Morgan		VI	53
Licking River	Magoffin		VI	60
Little Slate Creek	Montgomery	2.5	III	49
Middle Fork Licking River	Magoffin	2.6	V	58
Middle Fork Grassy Creek	Pendleton	12.6	V	21
Mill Creek	Harrison	19.0	IV	28
Mill Creek	Mason	13.0	IV	41
North Fork Creek	Morgan -Rowan	15.6	V	52
North Fork Grassy Creek	Pendleton	9.6	IV	20



INDEX TO APPENDIX (CONTINUED)

<u>STREAM</u>	<u>COUNTY</u>	<u>MILES</u>	<u>ORDER</u>	<u>PAGE</u>
North Fork Licking River	Bracken	82.4	VI	39
North Fork Licking River	Robertson		VI	39
North Fork Licking River	Mason		V	42
North Fork Triplett Creek	Rowan	22.0	V	51
Phillips Creek	Campbell	7.6	III	19
Raven Creek	Harrison	12.1	IV	26
Richland Creek	Pendleton	5.3	IV	39
Salt Lick Creek	Menifee - Bath	16.9	IV	50
Sand Lick	Fleming	9.7	IV	48
Shannon Creek	Mason	8.8	IV	41
Slate Creek	Bath	59.3	V	49
Slate Creek	Menifee		V	50
Somerset Creek	Nicholas	7.6	IV	37
South Fork Grassy Creek	Pendleton	22.6	IV	21
South Fork Grassy Creek	Pendleton		IV	22
South Fork Licking River	Pendleton	64.7	VI	24
South Fork Licking River	Harrison		VI	25
South Fork Triplett Creek	Rowan	15.1	V	51
Stoner Creek	Bourbon	68.0	V	31
Stoner Creek	Bourbon		V	31
Stoner Creek	Bourbon		IV	32
Strode Creek	Bourbon	24.7	V	33
Strode Creek	Bourbon		V	34
Townsend Creek	Harrison - Bourbon	8.5	IV	30
Triplett Creek	Rowan	4.7	VI	51
Twin Creek	Harrison	7.7	III	27
White Oak Branch	Morgan	.6	III	56
Willow Branch	Bracken	3.6	V	40
Wilson Run	Fleming	3.3	III	46

