

BRIEF NOTE

FISHES OF THE UPPER PORTAGE RIVER, OHIO, 1973-1975¹

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OHIO J. SCI. 82(5): 306, 1982

The objective of the study was to complete a qualitative analysis of fish populations in the Portage River from the dam near the town of Elmore, Ohio, upstream into the headwaters of the river. Collections were made during the years 1973-75. Previous studies of the fishes of the Portage River have been documented by Trautman (1957, 1981), Langlois (1965) and Hoke et al. (1979). Collections reported by Trautman (1957, 1981) and Langlois (1965) were conducted over the entire length of the river while Hoke et al. (1979) collected from the dam near Elmore, Ohio, downstream to the mouth of the river at Port Clinton, Ohio.

Sixteen stations were sampled in the north, south, east and middle branches of the Portage River, as well as several small tributaries. Each station was sampled 1-6 times between the months of March and November. Figure 1 illustrates the station locations for this study and the station locations utilized by Hoke et al. (1979) in the lower Portage River. Collections were made using seines of various lengths (2.4-9.2 m) and mesh sizes (0.6-0.95 cm) and electro-fishing techniques. All specimens were preserved in 9% formalin. Following identification and enumeration, collections were deposited at the

Ohio State University Zoology Museum, Fisheries Section.

A total of 6715 individuals representing 44 species and 9 families (table 1) were collected between 1973 and 1975. Table 2 lists the species collected in the Portage River based on literature reports from previous surveys and this study.

Six species have not been reported from the Portage River since Trautman (1957): *Notropis anogenus*, *Moxostoma anisurum*, *M. macrolepidotum*, *Noturus miurus*, *Lota lota* and *Etheostoma flabellare*. Langlois (1965) reported 6 species not collected from the Portage River by Trautman (1957): *Hypobopsis amblops*, *Nocomis biguttatus*, *Notropis heterolepis*, *Rhinichthys atratulus*, *Moxostoma duquesnei* and *Lepomis megalotis*. Of these 6 species, only *Moxostoma dequesnei* has been

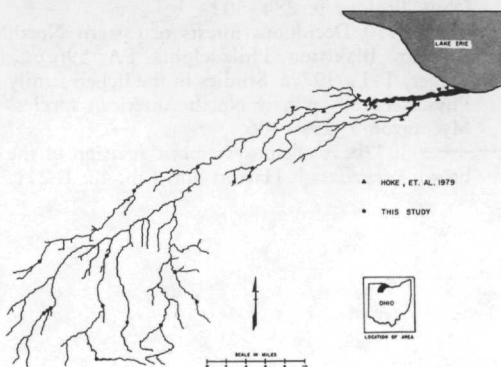


FIGURE 1. Station locations on the Portage River sampled during this study and by Hoke et al. (1979).

¹Manuscript received 2 December 1980 and in revised form 19 April 1982 (#80-61).

TABLE 1

Species list and relative abundance for fish species collected on the upper portions of the Portage River, 1973–1975.

Family-Genus, species*	Total No. Individuals	Relative Abundance
1. Lepisosteidae		.0001
<i>Lepisosteus osseus</i> (Linnaeus)	1	.0001
2. Clupeidae		.0015
<i>Dorosoma cepedianum</i> (Lesueur)	10	.0015
3. Esocidae		.0013
<i>Esox a. vermiculatus</i> Lesueur	8	.0012
<i>Esox lucius</i> Linnaeus	1	.0001
4. Catostomidae		.0280
<i>Carpiodes c. cyprinus</i> (Lesueur)	7	.0011
<i>Carpiodes c. hinei</i> Trautman	52	.0077
<i>Moxostoma duquesnei</i> (Lesueur)	1	.0001
<i>Moxostoma erythrum</i> (Rafinesque)	9	.0013
<i>Hypentelium nigricans</i> (Lesueur)	4	.0006
<i>Catostomus c. commersoni</i> (Lacepède)	115	.0171
<i>Minytrema melanops</i> (Rafinesque)	1	.0001
5. Cyprinidae		.7464
<i>Cyprinus carpio</i> (Linnaeus)	73	.0109
<i>Carassius auratus</i> (Linnaeus)	20	.0030
<i>Notemigonus crysoleucas</i> (Mitchill)	2	.0003
<i>Semotilus a. atromaculatus</i> (Mitchill)	121	.0180
<i>Phenacobius mirabilis</i> (Girard)	6	.0009
<i>Notropis a. atherinoides</i> (Rafinesque)	3	.0005
<i>Notropis rubellus</i> (Agassiz)	6	.0009
<i>Notropis u. cyanocephalus</i> (Copeland)	1692	.2520
<i>Notropis c. chrysocephalus</i> (Rafinesque)	113	.0168
<i>Notropis spilopterus</i> (Cope)	773	.1151
<i>Notropis s. stramineus</i> (Cope)	602	.0897
<i>Ericymba buccata</i> Cope	129	.0192
<i>Pimephales p. promelas</i> Rafinesque	196	.0292
<i>Pimephales notatus</i> (Rafinesque)	1235	.1839
<i>Campostoma a. anomalum</i> (Rafinesque)	15	.0022
<i>Campostoma a. pullum</i> (Agassiz)	5	.0007
<i>Campostoma a. anomalum x pullum</i>	21	.0031
6. Ictaluridae		.0089
<i>Ictalurus punctatus</i> (Rafinesque)	13	.0020
<i>Ictalurus natalis</i> (Lesueur)	18	.0027
<i>Ictalurus nebulosus</i> (Lesueur)	18	.0027
<i>Ictalurus melas</i> (Rafinesque)	4	.0006
<i>Noturus flavus</i> (Rafinesque)	6	.0009
7. Cyprinodontidae		.0021
<i>Fundulus notatus</i> (Rafinesque)	13	.0020
<i>Fundulus d. menona</i> Jordon and Copeland	1	.0001
8. Percidae		.0630
<i>Percina maculata</i> (Girard)	8	.0012
<i>Etheostoma n. nigrum</i> Rafinesque	221	.0329
<i>Etheostoma n. nigrum x eulepis</i>	11	.0016
<i>Etheostoma blennioides</i> Rafinesque	183	.0273

TABLE 1 *Continued*

Family-Genus, species*	Total No. Individuals	Relative Abundance
9. Centrarchidae		.1487
<i>Pomoxis annularis</i> Rafinesque	111	.0165
<i>Pomoxis nigromaculatus</i> (Lesueur)	42	.0063
<i>Pomoxis annularis</i> x <i>nigromaculatus</i>	46	.0069
<i>Ambloplites</i> r. <i>rupestris</i> (Rafinesque)	58	.0086
<i>Micropterus</i> d. <i>dolomieu</i> Lacepède	21	.0031
<i>Micropterus</i> s. <i>salmoides</i> (Lacepède)	7	.0011
<i>Lepomis cyanellus</i> Rafinesque	547	.0815
<i>Lepomis</i> m. <i>macrochirus</i> Rafinesque	111	.0165
<i>Lepomis humilis</i> (Girard)	43	.0064
<i>Lepomis gibbosus</i> (Linnaeus)	4	.0006
<i>Lepomis hybrid</i>	8	.0012
Total	6715	1.0000

*This is a partial list based on other collections.

reported from surveys since Langlois (1965). Six additional species, *Hybopsis storeriana*, *Notropis emiliae*, *N. volucellus*, *Etheostoma exile*, *Percina copelandi* and *P. shumardi*, have not been collected from the Portage River since Langlois (1965).

It is probable that the 6 species not collected since Trautman (1957) and the 11 species not collected since Langlois (1965) have been extirpated from the Portage

River. Of these 17 species, 7 are considered to be endangered (ODNR 1978) in the State of Ohio: *Hybopsis storeriana*, *Notropis emiliae*, *N. heterolepis*, *Lota lota*, *Etheostoma exile*, *Percina copelandi* and *P. shumardi*. In addition, the species *Ichthyomyzon unicuspis* reported by Hoke et al. (1979) and Trautman (1981) and *Fundulus diaphanus* reported by this study are currently considered to be endangered in the State of Ohio.

TABLE 2
Fish species reported from surveys of the Portage River.

Family-Genus, species**	*1	2	3	4	5
1. Petromyzontidae					
<i>Ichthyomyzon unicuspis</i> Hubbs and Trautman	X		X		X
2. Lepisosteidae					
<i>Lepisosteus osseus</i> (Linnaeus)	X	X		X	
3. Amiidae					
<i>Amia calva</i> Linnaeus	X	X	X		X
4. Clupeidae					
<i>Dorosoma cepedianum</i> (Lesueur)	X	X	X	X	X
5. Esocidae					
<i>Esox americanus vermiculatus</i> Lesueur	X	X		X	
<i>Esox lucius</i> Linnaeus	X	X	X	X	X
6. Cyprinidae					
<i>Campostoma anomalum</i> (Rafinesque)	X	X	X	X	X
<i>Carassius auratus</i> (Linnaeus)	X	X	X	X	X
<i>Cyprinus carpio</i> Linnaeus	X	X	X	X	X
<i>Ericymba buccata</i> Cope	X	X		X	X
<i>Hybopsis amblops</i> (Rafinesque)				X	
<i>Hybopsis storeriana</i> (Kirtland)	X	X			
<i>Nocomis biguttatus</i> (Kirtland)				X	

TABLE 2 Continued

Family-Genus, species**	*1	2	3	4	5
<i>Notemigonus crysoleucas</i> (Mitchill)	X	X		X	
<i>Notropis anogenus</i> Forbes	X				
<i>Notropis atherinoides</i> Rafinesque	X	X	X	X	X
<i>Notropis chrysocephalus</i> (Rafinesque)	X	X		X	X
<i>Notropis cornutus</i> (Mitchill)	X	X			X
<i>Notropis emiliae</i> (Hay)	X	X			
<i>Notropis heterolepis</i> Eigenmann and Eigenmann			X		
<i>Notropis hudsonius</i> (Clinton)	X	X	X		X
<i>Notropis rubellus</i> (Agassiz)	X	X		X	
<i>Notropis spilopterus</i> (Cope)	X	X	X	X	X
<i>Notropis stramineus</i> (Cope)	X	X	X	X	X
<i>Notropis umbratilis</i> (Girard)	X	X	X	X	X
<i>Notropis volucellus</i> (Cope)	X	X			
<i>Phenacobius mirabilis</i> (Girard)	X	X		X	X
<i>Pimephales notatus</i> (Rafinesque)	X	X	X	X	X
<i>Pimephales promelas</i> Rafinesque	X	X	X	X	X
<i>Rhinichthys atratulus</i> (Hermann)			X		
<i>Semotilus atromaculatus</i> (Mitchill)	X	X	X	X	X
7. Catostomidae					
<i>Carpiodes cyprinus</i> (Lesueur)	X	X	X	X	X
<i>Catostomus commersoni</i> (Lacepède)	X	X	X	X	X
<i>Hypentelium nigricans</i> (Lesueur)	X	X		X	
<i>Ictiobus cyprinellus</i> (Valenciennes)	X	X	X		X
<i>Minytrema melanops</i> (Rafinesque)	X	X		X	
<i>Moxostoma anisurum</i> (Rafinesque)	X				
<i>Moxostoma duquesnei</i> (Lesueur)		X		X	
<i>Moxostoma erythrurum</i> (Rafinesque)	X	X		X	X
<i>Moxostoma macrolepidotum</i> (Lesueur)	X				
8. Ictaluridae					
<i>Ictalurus melas</i> (Rafinesque)	X	X	X	X	X
<i>Ictalurus natalis</i> (Lesueur)	X	X		X	
<i>Ictalurus nebulosus</i> (Lesueur)	X	X	X	X	X
<i>Ictalurus punctatus</i> (Rafinesque)	X	X	X	X	X
<i>Noturus flavus</i> Rafinesque	X	X		X	
<i>Noturus gyrinus</i> (Mitchill)	X	X	X		X
<i>Noturus miurus</i> Jordan	X				
9. Percopsidae					
<i>Percopsis omiscomaycus</i> (Walbaum)	X	X	X		X
10. Gadidae					
<i>Lota lota</i> (Linnaeus)	X				
11. Cyprinodontidae					
<i>Fundulus diaphanus</i> (Lesueur)	X	X		X	
<i>Fundulus notatus</i> (Rafinesque)	X	X		X	
12. Atherinidae					
<i>Labidesthes sicculus</i> (Cope)	X	X	X		X
13. Percichthyidae					
<i>Morone chrysops</i> (Rafinesque)	X	X	X		X
14. Centrarchidae					
<i>Ambloplites rupestris</i> (Rafinesque)	X	X	X	X	X
<i>Lepomis cyanellus</i> Rafinesque	X	X	X	X	X
<i>Lepomis gibbosus</i> (Linnaeus)	X	X		X	X
<i>Lepomis humilis</i> (Girard)	X	X	X	X	X
<i>Lepomis macrochirus</i> Rafinesque	X	X		X	
<i>Lepomis megalotis</i> (Rafinesque)			X		

TABLE 2 *Continued*

Family-Genus, species**	*1	2	3	4	5
<i>Micropterus dolomieu</i> Lacepède	X	X	X	X	X
<i>Micropterus salmoides</i> (Lacepède)	X	X	X	X	X
<i>Pomoxis annularis</i> Rafinesque	X	X	X	X	X
<i>Pomoxis nigromaculatus</i> (Lesueur)	X	X	X	X	X
15. Percidae					
<i>Etheostoma blennioides</i> Rafinesque	X	X	X	X	X
<i>Etheostoma exile</i> (Girard)	X	X			
<i>Etheostoma flabellare</i> Rafinesque	X				
<i>Etheostoma nigrum</i> Rafinesque	X	X		X	X
<i>Perca flavescens</i> (Mitchill)	X	X	X		X
<i>Percina caprodes</i> (Rafinesque)	X	X	X		X
<i>Percina copelandi</i> (Jordan)	X	X			
<i>Percina maculata</i> (Girard)	X	X		X	
<i>Percina shumardi</i> (Girard)	X	X			
<i>Stizostedion vitreum</i> (Mitchill)	X	X	X		X
16. Sciaenidae					
<i>Aplodinotus grunniens</i> Rafinesque	X	X	X		X

*1 Trautman 1957. Collections made from 1925–1950.

2 Langlois 1965. Collections made from 1940–1963.

3 Hoke et al. 1979. Collections made in 1975.

4 This study. Collections made from 1973–1975.

5 Trautman 1981. Collections made from 1950–1980.

** American Fisheries Society 1980.

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