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Fishes of the Sucarnoochee River System, Alabama and Mississippi	

Number 24 November 1991

FISHES OF THE SUCARNOOCHEE RIVER SYSTEM, ALABAMA AND MISSISSIPPI

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ABSTRACT

Fish collections from 1931 to 1988 were used to generate a species list for the Sucarnoochee River system, a major tributary of the lower Tombigbee River in Alabama and Mississippi. Specimens from 77 sites represent 19 families and 101 species. The greatest diversity at any one site was 76 species. Thirty-eight sites were represented by 15 or more species, and each of 8 sites were represented by only one species. The most frequently encountered species were Fundulus olivaceus, Lepomis megalotis, Lythrurus bellus, Luxilus chrysocephalus, Lepomis macrochirus, Notropis ammophilus, Notropis baileyi, Lepomis cyanellus and Noturus gyrinus. The Sucarnoochee may offer refuge for certain species of fishes that no longer can survive in the Tombigee River due to habitat alteration perpetrated by the Tennessee-Tombigbee Waterway.

INTRODUCTION

The Sucarnoochee River system is a major tributary to the lower Tombigbee River drainage in western Mobile Basin. The earliest mention of Sucarnoochee fishes was made by O.P. Hay (1881) who said, "At Narkeeta, in Kemper County, I saw a few 'Sunfishes' taken from the Sucarnoochee River, a tributary of the Tombigbee." Hay collected along the route of Mobile and Ohio Railroad from Corinth to Shubuta, Mississippi.

Numerous collections were made in the Sucarnoochee system by the senior author for the Mississippi Department of

Wildlife, Fisheries, and Parks; Charles Tucker, during his tenure at Livingston University, amassed a teaching collection of fishes, primarily from the Sucarnoochee, and over the years collectors for the University of Alabama Ichthyological Collection have also sampled there, as well as other contributors cited in the site descriptions. Mettee et al. (1987) listed 61 species from 16 locations in the Sucarnochee River System. Our objective is to consolidate available data and compile a composite list of the ichthyofauna known to occur in the Sucarnoochee River System. This document will serve as baseline information for future resource assessments.

STUDY AREA

The Sucarnoochee River System encompasses approximately 1567 km² square miles in the lower Tombigbee River drainage in Alabama and Mississippi (Richardson 1985). Most of the system is developed upon Tertiary formations of the Midway and Wilcox Groups within the Southern Red Hills physiographic district. Some tributaries on the north side of the river extend to the Chunnenuggee physiographic district. Most streams within the system are perennial and are developed on sand, shale, or clay sediments. Headwater streams originate in Kemper and Lauderdale counties, Mississippi, and have substrata that consist primarily of sand. Sucarnoochee Creek, as it is known in Mississippi, is considered to be Sucarnoochee River once it enters Alabama

where it is a 6th order stream. Sucarnoochee River empties into the Coffeeville portion of the Tennessee-Tombigbee Waterway and has an average discharge of 111m³/s (Hayes 1978).

METHODS

Abbreviations: AUM – Auburn University Museum; CU – Cornell University; MDWFP – Mississippi Department of Wildlife, Fisheries, and Parks; MMNS – Mississippi Museum of Natural Science, Jackson; UAIC – University of Alabama Ichthyological Collection; UAIC (GSA) – collections that bear UAIC numbers but data and specimens remain in Geological Survey of Alabama; UMMZ – University of Michigan Museum of Zoology; TU – Tulane University (data from Mettee et al., 1987). TTW – Tennessee-Tombigbee Waterway. N, E, S, W are compass points. T – Township, R – Range, Sec – Section. CoRd – county road, Hwy – State highway, US – Federal highway, I – Interstate highway, mi – road mile, ami – airmile.

Although objectives and sampling methods differ among collectors, the data reported herein document the occurrence of species at particular places and times. Rotenone sampling by the MDWFP furnished detailed accounts of species composition in 30 of the 77 sites described herein. Rotenone was applied at a rate of 1-3 mg/l, depending on stream flow, and was detoxified with 4-5 mg/l potassium permanganate behind the block net at the end of the sample area. The MDWFP also fished hoop nets at two stations (Sites 44 and 65) in the Sucarnoochee during 1986. Five nets were fished monthly at each station for 3 consecutive days, excluding

July and September. Hoop nets had a front hoop diameter of 94 cm and 2.2 cm mesh. Minnow seines were the principal means of capture in the other collections. Hook-and-line fishing records were occasionally used. Specimens are housed in MMNS. Remnants of collections made over about a 20 year period by Charles Tucker and his students at Livingston University are deposited in UAIC 9884 to 9978. The remainder of Tucker's material is in the uncataloged teaching collection at Livingston, and those named specimens, when used to document the presence of a species, are identified by an asterisk (*).

Collection sites are numbered sequentially from downstream to upstream (Fig. 1). Site descriptions include: Name of stream, county, state, Township, Range and Section numbers, and access to site via roads. Next are the museum catalogue numbers, or in case of UAIC and MDWFP, the accession number, followed by the year the collection was made. All MDWFP collections were made in 1986.

The Species List follows Robins et al. (1991), with the following exceptions. We are following Andrew Simons (in press, a and b) in placing Ammocrypta asprella in Crystallaria, and Ammocrypta beani and A. meridiana in Etheostoma. We choose to recognize Fundulidae and Elassomatidae, and did not distinguish species within the Fundulus notti species group.

RESULTS AND DISCUSSION

Fishes of the Sucarnoochee River system represent 19 families and 101 species. The UAIC data reported herein have limited

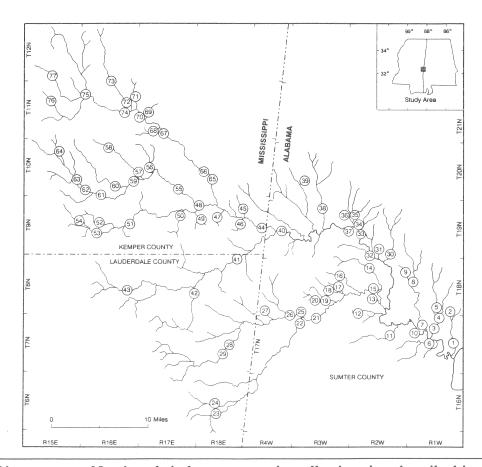


Fig 1. Sucarnoochee River system. Numbered circles represent the collection sites described in the text.

quantitative value due to the heterogeneity of the collections, unlike the MDWFP collections in which effort was standardized.

Seventy-seven sample sites are described and accompanied by a list ranging from 1 to 76 species. Thirty-eight sites were represented by 15 or more species, and each of 8 sites were represented by only one species. The rare species (those occurring only one time) were: Lampetra aepyptera, Alosa chrysochloris, Cyprinella callistia, Notropis candidus, Carpiodes cyprinus, Ictiobus bubalus, Moxostoma carinatum, Ameirurus nebulosus, Strongylura marina, Crystallaria asprella, Etheostoma histrio, Etheostoma proeliare, Etheostoma zoniferum, and Percina sp.cf. caprodes. Species of most frequent occurrence were Fundulus olivaceus (44 Sites), Lepomis megalotis (41), Lythrurus bellus (39), Luxilus chrysocephalus (35), Lepomis macrochirus (34), Notropis ammophilus (33), Notropis baileyi (31), Noturus gyrinus, and Lepomis cyanellus (31). Some species such as Amia calva, Ictiobus bubalus, and Ictalurus furcatus may actually be more widely distributed than our surveys indicate since their preferred habitats were sampled less frequently.

Although samples date to 1931 and 1951, most species represented then were collected again in the 1980s. Species collected before 1975 that failed to appear in samples after 1985 are: Amia calva, Dorosoma petenense, Hybognathus hayi, Notropis atherinoides, Erimyzon sucetta, Lepomis humilis, Lepomis marginatus, and Etheostoma proeliare. These species frequently occur in slow-moving water and backwater areas. Samples taken after 1985 were primarily in fast to moderately flowing streams of the upper watershed that excluded much of the sluggish waters typical of the lower system; therefore, the species probably exist in the Sucarnoochee system despite their absence in more recent collections.

For the most part, the Sucarnoochee River has been spared major alterations; consequently, species composition is expected to remain somewhat stable. Habitat changes did occur in the lowermost reach after 1960 when a more lentic environment was created by the TTW. The habitat change may encourage invasion by certain fish species which could affect the competitive balance of natural stream populations; however, conclusive evidence concerning community changes are not possible with simple presence-absence data given here.

Channelization, canalization and inundation have undoubtedly affected the species composition in the Tombigbee River drainage (Boschung 1987; 1989). Species that depend on large river habitat are the most prone to extirpation. Boschung (1973) listed 12 vulnerable species in the upper Tombigbee drainage, and Mettee et al. (1989) discussed the more recent decline of certain species in the Black Warrior drainage, the first to be modified for navigation in Alabama. Species that inhabit the Sucarnoochee system and are potentially threatened in the Tombigbee River by the TTW are: Polyodon spathula, Anguilla rostrata, Moxostoma carinatum, Hybognathus hayi, Hybognathus nuchalis, Notropis atherinoides, Crystallaria asprella, Etheostoma histrio, Etheostoma meridianum, Etheostoma nigrum, Etheostoma rupestre, Percina lenticula, Percina sciera, and Percina vigil. The relative abundance of Etheostoma beani, Etheostoma meridianum, Percina lenticula, and Percina sciera suggest potential for success of these species in the Sucarnoochee system. Percina vigil seems to be using the habitat of the Sucarnoochee as it does the large tributaries of the upper Tombigbee River (Boschung, 1987: fig. 23.2). Since Noturus munitus has not been found in the Sucarnoochee, its chances of using this refuge grows dimmer with time.

SITE DESCRIPTIONS AND SPECIES LISTS

SITES 1-12 ARE ON SUCARNOOCHEE RIVER PROPER OR TRIBUTARIES OF SUCARNOOCHEE RIVER IN SUMTER COUNTY, ALABAMA

SITE 1. Adams Creek. T17N, R1W, Sec 13 SW. CoRd 25, 0.5 mi N Sumter-Marengo county line. UAIC 9944 '67.

2 SPECIES: Erimyzon sucetta and Centrarchus macropterus*.

SITE 2. Adams Creek. T18N, R1W, Sec 35 S-central. CoRd 23, 1 mi E Coatopa. UAIC 9967 '77.

5 SPECIES: Notropis ammophilus*, Notropis buccatus*, Semotilus atromaculatus, Ameiurus natalis*, and Lepomis punctatus*.

SITE 3. Mill Creek. T17N, R1W, Sec9. US80. UAIC (GSA) 7446 '84.

23 SPECIES: Campostoma oligolepis, Cyprinella venusta, Hybognathus nuchalis, Luxilus chrysocephalus, Lythrurus bellus, Notropis ammophilus, Notropis buccatus, Notropis texanus, Pimephales notatus, Minytrema melanops, Noturus gyrinus, Fundulus olivaceus, Gambusia affinis, Lepomis cyanellus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Lepomis microlophus, Lepomis punctatus, Micropterus punctulatus, Micropterus salmoides, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 4. Mill Creek. T17N, R1W, Sec 3-Central. Hwy 28, 0.75 ami S Coatopa. UAIC 9907 '68, 9908 '69, 9909 '69, 9910 '70, 9911 '71, 9912 '72, 9913 '84, 9914 '84, 9915 '86, 9969 '77; UMMZ 97786-97805 '31.

27 SPECIES: Campostoma oligolepis, Cyprinella venusta, Hybognathus nuchalis, Lythrurus bellus, Notemigonus cyrsoleucas, Notropis ammophilus, Notropis buccatus, Pimephales notatus, Semotilus atromaculatus, Erimyzon oblongus, Ameiurus natalis, Noturus gyrinus, Gambusia affinis, Elassoma zonatum, Lepomis cyanellus, Lepomis macrochirus, Lepomis microlophus*, Lepomis punctatus, Micropterus punctulatus*, Micropterus salmoides, Etheostoma meridianum*, Etheostoma nigrum, Etheostoma parvipinne, Etheostoma swaini, Etheostoma whipplei, Etheostoma (Ulocentra) sp. and Percina nigrofasciata.

SITE 5. Coatopa Creek, trib Mill Creek. T18N, R1W, Sec 34 W-central. Hwy 28, 0.5 ami NW Coatopa. UAIC 9916 '69, 9917 '77, 9919 '84

13 SPECIES: Cyprinella venusta*, Lythrurus bellus*, Notemigonus crysoleucas, Notropis ammophilus*, Opsopoeodus emiliae, Pimephales notatus*, Moxostoma poecilurum, Noturus gyrinus*, Gambusia affinis*, Lepomis macrochirus, Lepomis megalotis*, Micropterus punctulatus, and Micropterus salmoides*.

SITE 6 Sucarnoochee River, near mouth Mill Creek. T17N, R1W, Sec 16. AUM 5519-5525 '69.

7 SPECIES: Pimephales notatus, Fundulus olivaceus, Gambusia affinis, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, and Lepomis punctatus.

SITE 7. Ponkabia Creek. T17N, R1W, Sec 8. US 80. UAIC (GSA)

7450 '84.

23 SPECIES: Esox americanus, Campostoma oligolepis, Cyprinella venusta, Hybognathus nuchalis, Luxilus chrysocephalus, Lythrurus bellus, Notropis ammophilus, Notropis buccatus, Pimephales notatus, Carpiodes velifer, Minytrema melanops, Moxostoma poecilurum, Ameiurus natalis, Ictalurus punctatus, Noturus gyrinus, Fundulus olivaceus, Gambusia affinis, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Micropterus salmoides, Etheostoma whipplei, and Etheostoma (Ulocentra) sp.

SITE 8. Ponkabia Creek. T18N, R1W, Sec 18 E-central. Hwy 28, 4 mi SE Livingston. UAIC 9952 '77.

5 SPECIES: Notropis ammophilus*, Noturus gyrinus*, Lepomis cyanellus, Lepomis punctatus*, and Percina sciera*.

SITE 9. Unnamed trib Ponkabia Creek. T18N, R2W, Sec 7 SW. Hwy 28, 3 mi SE Livingston. UAIC 9958 '77.

1 SPECIES: Lythrurus bellus.

SITE 10. Sucarnooche River. T17N, R1W, Sec 18. Ca 1 mi E Ballamy.

1 SPECIES: Ictalurus punctatus*.

SITE 11. Fourth Creek. T17N, R2W, Sec 14 NE, NW. US 80, 1.3 ami W Bellamy. UAIC 9932 '77; UAIC(GSA) 7447 '84.

20 SPECIES: Campostoma oligolepis, Cyprinella venusta, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis texanus, Pimephales notatus, Ameiurus natalis, Noturus gyrinus, Fundulus olivaceus, Gambusia affinis, Lepomis macrochirus, Lepomis megalotis, Micropterus salmoides, Etheostoma nigrum, Etheostoma parvipinne, and Etheostoma whipplei.

SITE 12. Unnamed trib Sucarnoochee River. T18N, R2W, Sec 32 SW. Unimproved road, 1.75 ami W Bennett. UAIC 9946 '78.

1 SPECIES: Ameiurus natalis.

[SITES 13-29 ARE IN THE ALAMUCHEE CREEK SYSTEM]

SITE 13. Swampy backwater of unnamed trib Alamuchee Creek, Sumter County, Alabama. T18N, R2W, Sec 28 NE. CoRd 13, 5.25 ami S Livingston. UAIC 9922 '71, 9923 '77, 9924 '81, 9925 '81, 9926 '84.

16 SPECIES: Lepisosteus osseus*, Esox niger*, Cyprinus carpio, Hybognathus hayi*, Nocomis leptocephalus*, Notropis baileyi, Pimephales notatus*, Erimyzon sp*, Minytrema melanops*, Fundulus notti, Labidesthes sicculus, Elassoma zonatum, Centrarchus macropeterus*, Lepomis gulosus, Lepomis macrochirus*, and Lepomis microlophus*.

SITE 14. Yellow Creek, Sumter County, Alabama. T18N, R2W, Sec 9 NW. CoRd 13, 1 mi S Livingston. UAIC 9962 '71.

1 SPECIES: Etheostoma whipplei.

SITE 15. Alamuchee Creek, Sumter County, Alabama. T18N, R2W, Sec 21 NE. Co Rd 13, 4.25 mi S Livingston. UAIC 4132 '71, 9884 '58, 9885 '67, 9886 '68, 9887 '69, 9888 '69, 9889 '70, 9890 '71, 9892 '72, 9893 '72, 9894 '73, 9895 '74, 9896 '77, 9897 '77, 9898 '80, 9899 '81, 9900 '81, 9901 '83, 9902 '84, 9903 '84, 9904 '85, 9905 '85, 9906 '78, 9977 '80; UAIC (GSA) 7448 '84, 7459 '84.

76 SPECIES: Lampetra aepyptera, Lepisosteus oculatus*, Lepisosteus osseus*, Alosa chrysochloris, Dorosoma cepedianum, Esox niger, Campostoma oligolepis*, Cyprinella venusta, Cyprinus carpio*, Hybognathus hayi, Hybognathus nuchalis, Luxilus chrysocephalus, Lythrurus bellus, Macrhybopis storeriana, Nocomis leptocephalus, Notemigonus crysoleucas, Notropis ammophilus, Notropis atherinoides,

Notropis baileyi, Notropis buccatus, Notropis maculatus, Notropis stilbius, Notropis texanus, Notropis volucellus, Notropis winchelli, Opsopoeodus emiliae, Pimephales notatus, Pimephales vigilax, Semotilus atromaculatus*, Carpiodes velifer*, Erimyzon oblongus*, Minytrema melanops, Moxostoma poecilurum*, Ameiurus melas, Ameiurus nebulosus*, Ictalurus punctatus, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Noturus nocturnus, Fundulus notti, Fundulus olivaceus, Gambusia affinis, Labidesthes sicculus, Ambloplites ariommus, Elassoma zonatum*, Centrarchus macropterus, Lepomis cyanellus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Lepomis microlophus, Lepomis punctatus, Micropterus punctulatus, Micropterus salmoides, Pomoxis annularis*, Pomoxis ni gromaculatus*, Crystallaria asprella, Etheostoma beani, Etheostoma chlorosomum, Etheostoma meridianum, Etheostoma nigrum*, Etheostoma parvipinne, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma swaini*, Etheostoma whipplei, Etheostoma zonifer, Percina lenticula, Percina maculata, Percina nigrofasciata, Percina sciera, Percina vigil, Percina sp. cf. caprodes, Stizostedion vitreum*, and Aplodinotus grunniens*.

SITE 16. Parker Creek, Sumter County, Alabama. T18N, R3W, Sec 12 SE. US 11, 4 ami SW Livingston. UAIC 9920 '70, 9921 '71.

6 SPECIES: Hybognathus hayi, Ameiurus melas*, Aphredoderus sayanus, Lepomis cyanellus, Lepomis marginatus, and Etheostoma proeliare.

SITE 17. Unnamed trib Bear Creek, Sumter County, Alabama. T18N, R3W, Sec 14. UAIC 490'56.

3 SPECIES: Lythrurus bellus, Fundulus olivaceus, and Lepomis cyanellus.

SITE 18. Bear Creek, Sumter County, Alabama. T18N, R3W, Sec 23 W-central. US 11, 2.75 mi NE jct Hwy 17. UAIC 9963 '70. 1 SPECIES: Erimyzon sucetta.

SITE 19. White Hall Creek, Sumter County, Alabama. T18N, R3W, Sec 27-Central. Ca 2 ami NE jct Hwy 17 and US 11 in York. UAIC 9929 '68, 9930 '70.

3 SPECIES: Campostoma oligolepis, Semotilus atromaculatus, and Fundulus olivaceus.

SITE 20. Little White Oak Creek, trib White Hall Creek, Sumter County, Alabama. T18N, R3W, Sec 27. CU 15552 '56.

16 SPECIES: Luxilus chrysocephalus, Lythrurus bellus, Notemigonus crysoleucas, Notropis baileyi, Pimephales notatus, Semotilus atromaculatus, Erimyzon oblongus, Aphredoderus sayanus, Fundulus olivaceus, Lepomis cyanellus, Lepomis gulosus, Lepomis megalotis, Etheostoma chlorosomum, Etheostoma nigrum, Etheostoma whipplei, and Percina maculata.

SITE 21. Alamuchee Creek, Sumter County, Alabama. T17N, R3W, Sec 4-Central. Hwy 17, 0.8 ami S jct US 11 in York. UAIC 491 '56, 9934 '69, 9935 '70, 9936 '77.

17 SPECIES: Dorosoma cepedianum, Nocomis leptocephalus*, Notemigonus crysoleucas, Notropis stilbius, Notropis winchelli*, Opsopoeodus emiliae, Pimephales notatus, Pimephales vigilax, Fundulus olivaceus, Gambusia affinis, Ambloplites ariommus, Lepomis gulosus, Lepomis macrochirus, Lepomis marginatus, Micropterus salmoides, Pomoxis annularis, and Etheostoma chlorosomum.

SITE 22. Unnamed trib Alamuchee Creek, Sumter County, Alabama. T17N, R3W, Sec 6 E-central. US 11, 1 mi S York. UAIC 9949 '70.

1 SPECIES: Etheostoma nigrum.

SITE 23. Alamuchee Creek, Lauderdale County, Mississippi. T6N,

R18E, Sec 29 E-central. Unimproved road 1 mi S Alamucha. UAIC 9959 '77.

1 SPECIES: Erimyzon oblongus.

SITE 24. Little Alamuchee Creek, Lauderdale County, Mississippi. T6N, R18E, Sec 20/21-Central. Ca 0.5 mi S Alamucha. UAIC 9966 '70. 3 SPECIES: Ameiurus natalis*, Fundulus olivaceus, and Percina maculata.

SITE 25. Toomsuba Creek, Sumter County, Alabama. T17N, R3W, Sec 5. US 11 in York. UAIC 9978 '77; UAIC (GSA) 7457 '84.

25 SPECIES: Cyprinella venusta, Hybognathus nuchalis, Lythrurus bellus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis stilbius, Notropis texanus, Notropis volucellus, Notropis winchelli, Opsopoeodus emiliae, Pimephales vigilax, Noturus gyrinus, Noturus leptacanthus, Fundulus olivaceus, Lepomis megalotis, Micropterus punctulatus, Etheostoma beani, Etheostoma meridianum, Etheostoma nigrum, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 26. Unnamed trib Toomsuba Creek, Sumter County, Alabama. T18N, R3W, Sec 31 SW. Just off CoRd 2, 1 mi W York. UAIC 9955 '77.

4 SPECIES: Notropis baileyi, Notropis winchelli*, Moxostoma poecilurum*, and Etheostoma beani*.

SITE 27. Unnamed trib Toomsuba Creek, Sumter County, Alabama. T18N, R4W, Sec 34. CoRd 2, 3.5 mi W York. UAIC 9956 '77.

4 SPECIES: Notropis baileyi, Moxostoma poecilurum*, Pimephales notatus, and Lepomis megalotis*.

SITE 28. Toomsuba Creek, Lauderdale County, Mississippi. T7N, R18E, Sec 22 NW. Co Rd, 1 mi N Kewanee. UAIC 9948 '70.

6 SPECIES: Luxilus chrysocephalus, Nocomis leptocephalus*, Notropis baileyi*, Aphredoderus sayanus*, Etheostoma swaini, and Percina sciera*.

SITE 29. Toomsuba Creek, Lauderdale County, Mississippi. T17N, R18E, Sec 28 N-central. US 11, 2.8 ami E Toomsuba. UAIC 9937 '77. 2 SPECIES: Cyprinella venusta and Noturus gyrinus.

SITES 30-40 ARE ON SUCARNOOCHEE RIVER PROPER OR TRIBUTARIES OF SUCARNOOCHEE RIVER IN SUMTER COUNTY, ALABAMA

SITE 30. Cedar Creek. T19N, R2W, Sec 35-Central. Hwy 28, 0.5 mi SE Livingston. UAIC 9968 '71, 9972 '81.

5 SPECIES: Lythrurus bellus, Semotilus atromaculatus*, Ameiurus natalis, Lepomis cyanellus*, and Lepomis cyanellus x Lepomis humilis.

SITE 31. Cockrell Creek. T19N, R1W, Sec 34. In Livingston ca 0.5 mi E jct Hwy 28 and US 11. UAIC 9943 '69.

3 SPECIES: Dorosoma petenense*, Notemigonus crysoleucas*, and Semotilus atromaculatus.

SITE 32. Sucarnoochee River. T19N, R2W, Sec 33 SW. US 11 in Livingston. UAIC 488 '56, 489 '56, 9950 '71, 9951 '78.

18 SPECIES: Ichthyomyzon gagei (ammocoetes), Anguilla rostrata*, Dorosoma petenense, Cyprinella venusta, Lythrurus bellus, Notropis ammophilus, Notropis atherinoides, Notropis candidus*, Notropis stilbius, Pimephales notatus, Pimephales vigilax, Erimyzon sp., Ictalurus furcatus*, Fundulus olivaceus, Gambusia affinis, Lepomis megalotis, Micropterus punctulatus, and Etheostoma whipplei.

SITE 33. Tucker's Slough, off Sucarnoochee River, adjacent to Livingston Country Club Golf Course, Livingston. T19N, R2W, Sec 30 NE. UAIC 9954 '78, 9976 '68.

6 SPECIES: Polyodon spathula*, Amia calva, Anguilla rostrata, Carpiodes velifer*, Lepomis microlophus*, and Pomoxis nigromaculatus*.

SITE 34. Backwater of Sucarnoochee River. T19N, R2W, Sec 17 W-central. I-59. UAIC 9945 '81.

3 SPECIES: Lepisosteus osseus, Notemigonus crysoleucas*, and Lepomis cyanellus.

SITE 35. McCainville Creek. T19N, R2W, Sec 7-Central. Hwy 28, 3 mi W US 11. UAIC 9960 '77.

4 SPECIES: Notropis ammophilus, Noturus nocturnus*, Lepomis humilis*, and Micropterus punctulatus.

SITE 36. Boyds pond. T19N, R2W, Sec 7 NW. Hwy 28, 1.75 mi W I-59. UAIC 9942 '84.

4 SPECIES: Notemigonus crysoleucas*, Ameiurus nebulosus, Lepomis cyanellus*, and Lepomis macrochirus*.

SITE 37. Sucarnoochee River. T19N, R2W, Sec 18/19. Ca3 miNW Livingston (trot line).

5 SPECIES: Polyodon spathula*, Ictalurus furcatus*, Ictalurus punctatus*, Pylodictus olivaris*, and Stizostedion vitreum.*.

SITE 38. Sicoloco Creek. T19N, R3W, Sec 3 S-central. Hwy 28, 4 mi W I-59. UAIC 9947 '81; UAIC(GSA) 7451 '84.

19 SPECIES: Cyprinella venusta, Hybognathus nuchalis, Luxilus chrysocephalus, Lythrurus bellus, Notemigonus crysoleucas, Notropis ammophilus, Notropis texanus, Pimephales notatus, Minytrema melanops, Fundulus olivaceus, Gambusia affinis, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Lepomis punctatus, Micropterus punctulatus, Micropterus salmoides, Etheostoma chlorosomum, and Etheostoma whipplei.

SITE 39. Pools Lake, trib Little Sanusi Creek. T20N, R3W, Sec 20 NE. Hwy 17, 2.5 mi S Emelle. UAIC 9953 '77.

2 SPECIES: Luxilus chrysocephalus and Ictalurus punctatus.

SITE 40. Sucarnoochee River. T19N, R4W, Sec 13/24. Ca 2.5 ami W. Boyd. UAIC 9931 '77.

1 SPECIES: Notropolis atherinoides.

[ALL OF THE REMAINING SITES ARE IN MISSISSIPPI]

SITE 41. Ponta Creek, Lauderdale County. T8N, R18E, Sec 2. UAIC(GSA) 7454 '84.

19 SPECIES: Cyprinella venusta, Notropois ammophilus, Notropis baileyi, Notropis buccantus, Notropis winchelli, Pimephales vigilax, Noturus gyrinus, Noturus leptacanthus, Fundulus olivaceus, Ambloplites ariommus, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Etheostoma beani, Etheostoma meridianum, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma whipplei, and Percina nigrofasciata.

SITE 42. Little Reed Creek, trib Ponta Creek, Lauderdale County. T8N, R17E, Sec 24 SE. In city limits of Lauderdale. UAIC 9964 '77, 9965 '77, 9971 '70.

5 SPECIES: Hybognathus nuchalis, Notropis buccatus, Noturus leptacanthus, Elassoma zonatum, and Ambloplites ariommus*.

SITE 43. Ponta Creek, Lauderdale County. T18N, R16E, Sec 23. CoRd, 2 mi SE Lizelia.

4 SPECIES: Luxilus chrysocephalus*, Notropis texanus*, Pimephales vigilax*, and Micropterus salmoides*.

SITE 44. Sucarnoochee Creek, Kemper County. T9N, R18E, Sec 13. Ca 1 mi NW state line. UAIC 4175 '71, 4444 '72. MDWFP-30 (includes lower hoop net station).

66 SPECIES: Lepisosteus oculatus, Lepisosteus osseus, Amia calva, Dorosoma cepedianum, Campostoma oligolepis, Cyprinella callistia, Cyprinella venusta, Cyprinus carpio, Hybognathus nuchalis, Luxilus chrysocephalus, Lythrurus bellus, Macrhybopsis storeriana, Nocomis leptocephalus, Notemigonus crysoleucas, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis stilbius, Notropis texanus, Notropis volucellus, Notropis winchelli, Pimephales vigilax, Carpiodes cyprinus, Carpiodes velifer, Ictiobus bubalus, Minytrema melanops, Moxostoma carinatum, Moxostoma erythrurum, Moxostoma poecilurum, Ameiurus natalis, Ictalurus punctatus, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Noturus nocturnus, Pylodictis olivaris, Fundulus notatus, Fundulus olivaceus, Aphredoderus sayanus, Labidesthes sicculus, Ambloplites ariommus, Elassoma zonatum, Centrarchus macropterus, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Lepomis microlophus, Micropterus punctulatus, Micropterus salmoides, Pomoxis annularis, Pomoxis nigromaculatus, Etheostoma beani, Etheostoma histrio, Etheostoma meridianum, Etheostoma nigrum, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma whipplei, Percina lenticula, Percina maculata, Percina nigrofasciata, Percina sciera, Percina vigil, Stizostedion vitreum, and Aplodinotus grunniens.

SITE 45. Unnamed trib Sucarnoochee Creek, Kemper County. T9N, R18E, Sec 11. Hwy 498, 1 mi N Sucarnoochee Creek. MDWFP-6.

11 SPECIES: Esox americanus, Notemigonus crysoleucas, Aphredoderus sayanus, Fundulus olivaceus, Elassoma zonatum, Lepomis cyanellus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Lepomis punctatus, and Etheostoma whipplei.

SITE 46. Unnamed trib Sucarnoochee Creek, Kemper County. T9N, R18E, Sec 23. Ca 2.5 mi SE Enondale. MDWFP-4.

16 SPECIES: Notemigonus crysoleucas, Luxilus chrysocephalus, Lythrurus bellus, Semotilus atromaculatus, Erimyzon oblongus, Minytrema melanops, Ameiurus melas, Fundulus olivaceus, Gambusia affinis, Elassoma zonatum, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Micropterus salmoides, Pomoxis annularis, and Etheostoma chlorosomum.

SITE 47. Unnamed trib Sucarnoochee Creek, Kemper County. T9N, R18E, Sec 16. Ca 0.25 mi E Enondale. MDWFP-27.

17 SPECIES: Hybognathus nuchalis, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis texanus, Pimephales notatus, Semotilus atromaculatus, Erimyzon oblongus, Fundulus notatus, Fundulus olivaceus, Gambusia affinis, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, and Etheostoma whipplei.

SITES 48 – 64 ARE IN THE PAWTICFAW CREEK SYSTEM IN KEMPER COUNTY, MISSISSIPPI.

SITE 48. Pawticfaw Creek. T9N, R18E, Sec 7. US 45, 8 mi S Electric Mills. UAIC 9940 '77, 9941 '77; MDWFP-1.

38 SPECIES: Esox niger, Cyprinella venusta, Hybognathus nuchalis, Nocomis leptocephalus, Notemigonus crysoleucas, Luxilus chrysocephalus, Lythrurus bellus, Macrhybopsis storeiana, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis texanus,

Notropis winchelli, Oposopoeodus emiliae, Pimephales notatus, Pimephales vigilax, Minytrema melanops, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Aphredoderus sayanus, Fundulus notatus, Fundulus olivaceus, Gambusia affinis, Labidesthes sicculus, Elassoma zonatum, Lepomis cyanellus, Lepomis gulosus, Lepomis megalotis, Lepomis microlophus, Micropterus punctulatus, Etheostoma meridianum, Etheostoma nigrum, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 49. Unnamed trib Blackwater Creek. T9N, R18E, Sec 18. US 45. MDWFP-7.

13 SPECIES: Luxilus chrysocephalus, Notemigonus crysoleucas, Notropis baileyi, Semotilus atromaculatus, Erimyzon oblongus, Noturus funebris, Noturus gyrinus, Fundulus olivaceus, Gambusia affinis, Lepomis cyanellus, Etheostoma parvipinne, Etheostoma whipplei, and Etheostoma (Ulocentra) sp.

SITE 50. Cap Branch Creek, trib Blackwater Creek. T9N, R17E, Sec 11. Ca 1.75 mi W US 45. MDWFP-2.

22 SPECIES: Ichthyomyzon gagei, Esox americanus, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis texanus, Opsopoeodus emiliae, Erimyzon oblongus, Minytrema melanops, Ameiurus natalis, Noturus funebris, Noturus gyrinus, Aphredoderus sayanus, Fundulus olivaceus, Elassoma zonatum, Lepomis gulosus, Lepomis megalotis, Lepomis punctatus, Etheostoma nigrum, and Etheostoma (Ulocentra) sp.

SITE 51. Blackwater Creek. T9N, R16E, Sec 13. CA 3.5 mi E Blackwater, MDWFP-3.

27 SPECIES: Esox americanus, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis buccatus, Notropis baileyi, Notropis texanus, Notropis winchelli, Pimephales notatus, Pimephales vigilax, Moxostoma poecilurum, Ameiurus natalis, Noturus funebris, Aphredoderus sayanus, Fundulus olivaceus, Gambusia affinis, Elassoma zonatum, Lepomis gulosus, Lepomis megalotis, Lepomis punctatus, Micropterus punctulatus, Etheostoma nigrum, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma (Ulocentra) sp. and Percina nigrofasciata.

SITE 52. Unnamed trib Blackwater Creek. T9N, R16E, Sec 20. Hwy 39 at Blackwater. MDWFP-9.

8 SPECIES: Semotilus atromaculatus, Ameiurus melas, Elassoma zonatum, Lepomis gulosus, Lepomis macrochirus, Micropterus salmoides, Etheostoma parvipinne, and Etheostoma swaini.

SITE 53. Blackwater Creek. T9N, R16E, Sec 29. Hwy 39, 1 mi S Blackwater. MDWFP-8.

22 SPECIES: Esox americanus, Luxilus chrysocephalus, Lythrurus bellus, Notropis texanus, Pimephales notatus, Minytrema melanops, Ameiurus natalis, Noturus funebris, Noturus gyrinus, Aphredoderus sayanus, Fundulus notatus, Fundulus olivaceus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Lepomis punctatus, Micropterus salmoides, Etheostoma chlororsomum, Etheostoma nigrum, Etheostoma swaini, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 54. Blackwater Creek. T9N, R15E, Sec 13. Ca 2 mi W Blackwater. MDWFP-10.

17 SPECIES: Luxilus chrysocephalus, Lythrurus bellus, Notropis ammophilus, Pimephales notatus, Semotilus atromaculatus, Erimyzon oblongus, Ameiurus natalis, Noturus funebris, Noturus gyrinus, Fundulus olivaceus, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Micropterus salmoides, Etheostoma chlorosomum, Etheostoma nigrim, and Etheostoma parvipinne.

SITE 55. Pawticfaw Creek. T10N, R17E, Sec 34. Ca 2.5 mi W US 45. UAIC(GSA) 7453 '84; MDWFP-12.

32 SPECIES: Cyprinellavenusta, Luxilus chrysocephalus, Lythrurus bellus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis stilbius, Notropis texanus, Notropis winchelli, Pimephales vigilax, Erimyzon oblongus, Minytrema melanops, Moxostoma poecilurum, Ameiurus natalis, Ictalurus punctatus, Noturus leptacanthus, Pylodictis olivaris, Fundulus olivaceus, Gambusia affinis, Labidesthes sicculus, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Etheostoma beani, Etheostoma meridianum, Etheostoma nigrum, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma whipplei, Etheostoma (Ulocentra) sp., Percina nigrofasciata, and Percina sciera.

SITE 56. Poole Branch Creek. T10N, R17E, Sec 19. CoRd, 6 mi SE DeKalb. UAIC 9933 '70; MDWFP-13.

30 SPECIES: Ichthyomyzon gagei (ammocoetes), Hybognathus nuchalis, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis texanus, Pimephales notatus, Semotilus atromaculatus, Erimyzon oblongus, Moxostoma poecilurum, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Noturus nocturnus, Fundulus notatus, Fundulus olivaceus, Lepomis cyanellus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Lepomis punctatus, Micropterus salmoides, Etheostoma nigrum, Etheostoma parvipinne, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma sp. and Percina nigrofasciata.

SITE 57. Parker Creek, at confluence with Cullen Branch. T10N, R16E, Sec 24. MDWFP-14.

23 SPECIES: Esox niger, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis texanus, Pimephales notatus, Moxostoma poecilurum, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Fundulus notatus, Fundulus olivaceus, Lepomis megalotis, Lepomis punctatus, Micropterus salmoides, Etheostoma nigrum, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 58. Parker Creek. T10N, R16E, Sec 9. Hwy 39, 1.5 mi S DeKalb. UAIC 9961 '70.

5 SPECIES: Hybognathus nuchalis*, Notropis texanus*, Gambusia affinis*, Lepomis punctatus, and Etheostoma swaini.

SITE 59. Pawticfaw Creek. T10N, R16E, Sec 25. CoRd, 2.25 mi NE Kipling. MDWFP-15.

24 SPECIES: Luxilus chrysocephalus, Lythrurus bellus, Notropis ammophilus, Notropis buccatus, Notropis winchelli, Minytrema melanops, Moxostoma poecilurum, Ameiurus natalis, Noturus funebris, Noturus leptacanthus, Fundulus olivaceus, Elassoma zonatum, Ambloplites ariommus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Lepomis punctatus, Micropterus punctulatus, Etheostoma meridianum, Etheostoma nigrum, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma (Ulocentra) sp. and Percina nigrofasciata.

SITE 60. Unnamed trib Pawticfaw Creek. T10N, R16E, Sec 27. CoRd, 0.5 mi N Kipling. UAIC 9973 '77; MDWFP-16.

22 SPECIES: Ichthyomyzon gagei, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis buccatus, Notropis baileyi, Notropis texanus, Notropis winchelli, Opsopoeodus emiliae, Erimyzon oblongus, Moxostoma poecilurum, Noturus funebris, Noturus leptacanthus, Aphredoderus sayanus, Fundulus olivaceus, Elassoma zonatum, Lepomis megalotis, Micropterus punctulatus, Etheostoma parvipinne, Etheostoma swaini, Etheostoma (Ulocentra) sp. and Percina nigrofasciata.

SITE 61. Pawticfaw Creek. T9N, R16E, Sec 5. Hwy 39, 3 mi N Blackwater. MDWFP-11.

27 SPECIES: Dorosoma cepedianum, Cyprinella venusta, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Pimephales notatus, Pimephales vigilax, Minytrema melanops, Moxostoma poecilurum, Ameiurus natalis, Noturus funebris, Noturus leptacanthus, Fundulus olivaceus, Gambusia affinis, Lepomis cyanellus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Lepomis punctatus, Micropterus punctulatus, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma (Ulocentra) sp. Percina nigrofasciata, and Percina vigil.

SITE 62. Pawticfaw Creek. T10N, R16E, Sec 31. TU 14158 '55; TU 36062 '60.

4 SPECIES: Erimyzon sucetta, Noturus leptacanthus, Fundulus olivaceus, and Ambloplites ariommus.

SITE 63. Pawticfaw Creek. T10N, R15E, Sec 25. CoRd, 2.75 mi W Hwy. 39. MDWFP-17.

27 SPECIES: Dorosoma cepedianum, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis texanus, Pimephales notatus, Pimephales vigilax, Moxostoma poecilurum, Ictalurus punctatus, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Aphredoderus sayanus, Fundulus olivaceus, Ambloplites ariommus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Etheostoma meridianum, Etheostoma nigrum, Etheostoma stigmaeum, Etheostoma (Ulocentra) sp. Percina nigrofasciata, and Aplodinotus grunniens.

SITE 64. Delphia Creek. T10N, R15E, Sec 10. CoRd, 7.5 mi SW DeKalk. UAIC 9927 '70, 9928 '77.

7 SPECIES: Notemigonus crysoleucas, Aphredoderus sayanus, Elassoma zonatum, Lepomis humilis*, Pomoxis annularis, Etheostoma chlorosomum, and Etheostoma swaini.

SITES 65-77 ARE IN THE UPPER SUCARNOOCHEE SYSTEM IN KEMPER COUNTY, MISSISSIPPI

SITE 65. Sucarnoochee Creek. T10N, R18E, Sec 29. Hwy 489 at Porterville. UAIC 9938 '70, 9970 '77; MDWFP-5 (includes upper hoopnet station).

44 SPECIES: Lepisosteus oculatus, Lepisosteus osseus, Anguilla rostrata, Dorosoma cepedianum, Cyprinella venusta, Cyprinus carpio, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis maculatus, Notropis stilbius, Notropis texanus, Notropis winchelli, Pimephales vigilax, Erimyzon oblongus, Minytrema melanops, Moxostoma poecilurum, Ameiurus natalis, Ictalurus punctatus, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Pylocidictis olivaris, Fundulus olivaceus, Ambloplites ariommus, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Pomoxis annularis, Pomoxis nigromaculatus, Etheostoma beani, Etheostoma meridianum, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma whipplei, Percina nigrofasciata, Percina sciera, Stizostedion vitreum, and Aplodinotus grunniens.

SITE 66. Sucarnoochee Creek. T10N, R18E, Sec 20. AT US 45. UAIC(GSA) 7452 '84; MDWFP-18.

35 SPECIES: Cyprinella venusta, Luxilus chrysocephalus, Lythrurus bellus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis stilbius, Notropis texanus, Notropis volucellus, Notropis winchelli, Pimephales vigilax, Minytrema melanops, Moxostoma erythrum, Moxostoma poeciliurum, Ictalurus punctatus, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Pylodictis olivaris,

Fundulus olivaceus, Gambusia affinis, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Etheostoma beani, Etheostoma chlorosomum, Etheostoma meridianum, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma whipplei, Percina lenticula, Percina maculata, Percina nigrofasciata, and Percina sciera.

SITE 67. Sucarnoochee Creek. T11N, R17E, Sec 33. CoRd, 0.2 mi W Carters. MDWFP-20.

26 SPECIES: Cyprinella venusta, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis stilbius, Notropis texanus, Notropis winchelli, Pimephales vigilax, Minytrema melanops, Moxostoma poecilurum, Ictalurus punctatus, Noturus funebris, Noturus gyrinus, Pylodictis olivaris, Fundulus olivaceus, Gambusia affinis, Elassoma zonatum, Ambloplites ariommus, Lepomis megalotis, Micropterus punctulatus, Etheostoma beani, Etheostoma meridianum, Etheostoma nigrum, Etheostoma stigmaeum, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 68. Hull Branch Creek. T11N, R17E, Sec 32. Ca 1 mi W Carters. MDWFP-19

28 SPECIES: Cyprinella venusta, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis texanus, Minytrema melanops, Ameiurus natalis, Ictalurus punctatus, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Pylodictis olivaris, Aphredoderus sayanus, Fundulus notatus, Fundulus olivaceus, Gambusia affinis, Elassoma zonatum, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Etheostoma parvipinne, Etheostoma swaini, Etheostoma whipplei, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 69. Hamilton Branch. T11N, R17E, Sec 19. Hwy 16. MDWFP-21.

10 SPECIES: Notemigonus crysoleucas, Erimyzon oblongus, Aphredoderus sayanus, Fundulus notatus, Fundulus olivaceus, Gambusia affinis, Elassoma zonatum, Lepomis cyanellus, Lepomis megalotis, and Etheostoma whipplei.

SITE 70. Sucarnoochee Creek. T11N, R17E, Sec 19. TU 12780'82. 31 SPECIES: Cyprinella venusta, Luxilus chrysocephalus, Lythrurus bellus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis stilbius, Notropis texanus, Notropis volucellus, Notropis winchelli, Pimephales notatus, Pimephales vigilax, Moxostoma poecilurum, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Fundulus olivaceus, Gambusia affinis, Ambloplites ariommus, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Etheostoma beani, Etheostoma meridianum, Etheostoma nigrum, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma whipplei, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 71. Unnamed trib Sucarnoochee Creek. T11N, R16E, Sec 13. CoRd, 2 mi NE DeKalb. MDWFP-22.

10 SPECIES: Luxilus chrysocephalus, Lythrurus bellus, Notemigonus crysoleucas, Semotilus atromaculatus, Erimyzon oblongus, Lepomis cyanellus, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, and Etheostoma whipplei.

SITE 72. Straight Creek. T11N, R16E, Sec 14. CoRd, 1.6 mi NE DeKalb. MDWFP-23.

20 SPECIES: Ichthyomyzon gagei, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Pimephales notatus, Erimyzon oblongus, Ameiurus natalis, Noturus funebris, Noturus gyrinus, Fundulus olivaceus, Elassoma zonatum, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Micropterus salmoides, Etheostoma swaini, Etheostoma whipplei, and Percina nigrofasciata.

SITE 73. Straight Creek. T11N, R16E, Sec 4. Hwy 39, 3.75 mi N DeKalb. MDWFP-29.

21 SPECIES: Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Pimephales notatus, Moxostoma poecilurum, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Fundulus olivaceus, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Etheostoma nigrum, Etheostoma parvipinne, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 74. Sucarnoochee Creek. T11N, R16E, Sec 23. CoRd, 1 mi DeKalb. MDWFP-24.

22 SPECIES: Cyprinella venusta, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis baileyi, Notropis buccatus, Notropis stilbius, Moxostoma poecilurum, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Fundulus olivaceus, Ambloplites ariommus, Elassoma zonatum, Lepomis macrochirus, Lepomis megalotis, Micropterus punctulatus, Etheostoma beani, Etheostoma rupestre, Etheostoma swaini, Etheostoma (Ulocentra) sp., and Percina nigrofasciata.

SITE 75. Sucarnoochee Creek at mouth of Running Tiger Creek. T11N, R16E, Sec 7. Ca 3 mi NW DeKalb. UAIC 5563 '77; MDWFP-28.

31 SPECIES: Cyprinella venusta, Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notropis ammophilus, Notropis baileyi, Notropis buccatus, Notropis stilbius, Pimephales vigilax, Moxostoma poecilurum, Ictalurus punctatus, Noturus funebris, Noturus gyrinus, Noturus leptacanthus, Fundulus olivaceus, Ambloplites ariommus, Lepomis cyanellus, Lepomis macrochirus, Lepomis megalotis, Lepomis punctatus, Micropterus punctulatus, Etheostoma beani, Etheostoma nigrum, Etheostoma rupestre, Etheostoma stigmaeum, Etheostoma swaini, Etheostoma (Ulocentra) sp., Percina lenticula, Percina nigrofasciata, Stizostedion vitreum, and Aplodinotus grunniens.

SITE 76. Unnamed trib Sucarnoochee Creek. T11N, R15E, Sec 16. Ca 4 mi NW DeKalb. MDWFP-25.

15 SPECIES: Luxilus chrysocephalus, Lythrurus bellus, Nocomis leptocephalus, Notemigonus crysoleucas, Notropis baileyi, Notropis texanus, Erimyzon oblongus, Noturus gyrinus, Noturus leptacanthus, Aphredoderus sayanus, Fundulus olivaceus, Gambusia affinis, Elassoma zonatum, Lepomis cyanellus, and Lepomis megalotis.

SITE 77. Little Minnow Creek. T12N, R15E, Sec 33. Just below Kemper County Lake spillway. MDWFP-26.

17 SPECIES: Anguilla rostrata, Notropis stilbius, Minytrema melanops, Moxostoma poecilurum, Ictalurus punctatus, Noturus gyrinus, Noturus leptacanthus, Aphredoderus sayanus, Fundulus olivaceus, Gumbusia affinis, Labidesthes sicculus, Elassoma zonatum, Lepomis gulosus, Lepomis macrochirus, Lepomis megalotis, Lepomis punctatus, and Micropterus salmoides.

SPECIES LIST AND SITE NUMBERS

Family Petromyzontidae

Ichthyomyzon gagei Hubbs and Trautman 4 Sites: 50, 56, 60, 72.

southern brook lamprey

Lampetra aepyptera (Abbott)

least brook lamprey

1 Site: 15

Family Polyodontidae - paddlefishes

Polyodon spathula (Walbaum) 2 Sites: 33, 37.

paddlefish

Family Lepisosteidae - gars

Lepisosteus oculatus Winchell

spotted gar

2 Sites: 44, 65

Lepisosteus osseus (Linnaeus)

longnose gar

4 Sites: 13, 34, 44, 65.

Family Amiidae – bowfins

Amia calva Linnaeus

bowfin

2 Sites: 33, 44.

Family Anguillidae - freshwater eels

Anguilla rostrata (Lesueur)

American eel

4 Sites: 32, 33, 65, 77.

Family Clupeidae – herrings

Alosa chrysochloris (Rafinesque)

shipjack herring

1 Site: 15

Dorosoma cepedianum (Lesueur)

gizzard shad

6 Sites: 15, 21, 44, 61, 63, 65. Dorosoma petenense (Gunther)

threadfin shad

2 Sites: 31, 32.

Esocidae – pikes

Esox americanus americanus Gmelin

redfin pickerel

5 Sites: 7, 45, 50, 51, 53.

Esox niger Lesueur

chain pickerel

4 Sites: 13, 15, 48, 57.

Family Cyprinidae – carps and minnows

Campostoma oligolepis Hubbs and Greene

largescale stoneroller

7 Sites: 3, 4, 7, 11, 15, 19, 44.

Alabama shiner

Cyprinella callistia (Jordan)

1 Site: 44.

blacktail shiner

Cyprinella venusta Girard

3 Sites: 7, 33, 44.

75.

22 Sites: 3, 4, 5, 7, 11, 15, 25, 29, 32, 38, 41, 44, 48, 55, 61, 65, 66,

67, 68, 70, 74, 75.

Cyprinus carpio Linnaeus 3 Sites: 13, 44, 65.

common carp

Hybognathus hayi Jordan

cypress minnow

3 Sites: 13, 15, 16.

Hybognathus nuchalis Agassiz

Mississippi silvery minnow

12 Sites: 3, 4, 7, 15, 25, 38, 42, 44, 47, 48, 56, 58.

Luxilus chrysocephalus Rafinesque

35 Sites: 3, 7, 11, 15, 20, 28, 38, 39, 43, 44, 46, 47, 48, 49, 50, 51,

53, 54, 55, 56, 57, 59, 60, 61, 63, 65, 66, 68, 70, 71, 72, 73, 74, 75, 76.

Lythrurus bellus (Hay) pretty shiner

39 Sites: 3, 4, 5, 7, 9, 11, 15, 17, 20, 25, 30, 32, 38, 44, 46, 47, 48, 50, 51, 53, 54, 55, 56, 57, 59, 60, 61, 63, 65, 66, 67, 68, 70, 71, 72, 73, 74,

75,76.

Macrhybopis storeriana (Kirtland)

silver chub

3 Sites: 15, 44, 48.

Nocomis leptocephalus (Girard)

bluehead chub

23 Sites: 11, 13, 15, 21, 28, 44, 47, 48, 50, 51, 56, 57, 60, 61, 63, 65,

67, 68,72, 73, 74, 75, 76.

Notemigonus crysoleucas (Mitchill)

golden shiner

18 Sites: 4, 5, 15, 20, 21, 31, 34, 36, 38, 44, 45, 46, 48, 49, 64, 69,

Notropis ammophilus Suttkus and Boschung 33 Sites: 2, 3, 4, 5, 7, 8, 11, 15, 25, 32, 35, 38, 41, 44, 47, 48, 50, 51,

orangefin shiner

54, 55, 56, 57, 59, 61, 63, 65, 66, 67, 68, 70, 72, 73, 75.

Notropis atherinoides Rafinesque 3 Sites: 15, 32, 40.

Notropis baileyi Suttkus and Raney

rough shiner

emerald shiner

30 Sites: 11, 13, 15, 20, 25, 26, 27, 28, 41, 44, 47, 48, 49, 50, 51, 55,

56, 57, 60, 61, 63, 65, 66, 68, 70, 72, 73, 74,75, 76.

Notropis buccatus (Cope) silverjaw minnow 22 Sites: 2, 3, 4, 7, 11, 15, 25, 41, 42, 44, 48, 51, 55, 57, 59, 60, 65,

66, 68, 70, 74, 75.

Notropis candidus Suttkus

silverside shiner

1 Site: 32.

Notropis maculatus (Hay)

taillight shiner

2 Sites: 15, 65.

silverstripe shiner Notropis stilbius (Jordan)

13 Sites: 15, 21, 25, 32, 44, 55, 65, 66, 67, 70, 74, 75, 77.

Notropis texanus (Girard)

24 Sites: 3, 11, 15, 25, 38, 43, 44, 47, 48, 50, 51, 53, 55, 56, 57, 58,

60, 63, 65, 66, 67, 68, 70, 76.

Notropis volucellus (Cope)

mimic shiner

5 Sites: 15, 25, 44, 66, 70. Notropis winchelli (Girard)

clear chub

15 Sites: 15, 21, 25, 26, 41, 44, 48, 51, 55, 59, 60, 65, 66, 67, 70. pugnose minnow

Opsopoeodus emiliae Hay

7 Sites: 5, 15, 21, 25, 48, 50, 60. Pimephales notatus (Rafinesque)

bluntnose minnow

25 Sites: 3, 4, 5, 6, 7, 11, 13, 15, 20, 21, 27, 32, 38, 47, 48, 51, 53,

54, 56, 57, 61, 63, 70, 72, 73. Pimephales vigilax (Baird and Girard)

17 Sites: 15, 21, 25, 32, 41, 43, 44, 48, 51, 55, 61,63, 65, 66, 67, 70,

bullhead minnow

Semotilus atromaculatus (Mitchill)

14 Sites: 2, 4, 15, 19, 20, 30, 31, 46, 47, 49, 52, 54, 56, 71.

Family Catostomidae - suckers

Carpiodes cyprinus (Lesueur)

quillback

1 Site: 44.

Carpiodes velifer (Rafinesque)

highfin carpsucker

Ictiobus bubalus (Rafinesque)

smallmouth buffalo

1 Site 44.

Erimyzon oblongus (Mitchill)

16 Sites: 4, 15, 20, 23, 46, 47, 49, 50, 54, 56, 60, 65, 69, 71, 72, 76.

Erimyzon sucetta (Lacepede)

lake chubsucker

creek chubsucker

3 Sites: 1, 18, 62.

Erimyzon sp. (unidentified juveniles)

2 Sites: 13, 32.

Minytrema melanops (Rafinesque) 18 Sites: 3, 7, 13, 15, 38, 44, 46, 48, 50, 53, 55, 59, 61, 65, 66, 67, 68,

spotted sucker

77.

Moxostoma carinatum (Cope)

river redhorse

1 Site: 44.

Moxostoma erythrurum (Rafinesque)

golden redhorse

blacktail redhorse

2 Sites: 44, 66.

Moxostoma poecilurum (Jordan) 21 Sites: 5, 7, 26, 27, 44, 51, 55, 56, 57, 59, 60, 61, 63, 65, 66, 67, 70,

73, 74, 75, 77.

Family Ictaluridae - bullhead catfishes

black bullhead Ameiurus melas (Rafinesque) 4 Sites: 15, 16, 46, 52.

yellow bullhead Ameiurus natalis (Lesueur) 18 Sites: 2, 4, 7, 11, 12, 24, 30, 44, 50, 51, 53, 54, 55, 59, 61, 65, 68,

Ameiurus nebulosus (Lesueur)

brown bullhead

1 Site: 36.

blue catfish Ictalurus furcatus (Lesueur)

2 Sites: 32, 37.

Ictalurus punctatus (Rafinesque) channel catfish 13 Sites: 7, 10, 15, 37, 39, 44, 63, 65, 66, 67, 68, 75, 77.

Noturus funebris Gilbert and Swain black madtom 23 Sites: 15, 44, 48, 49, 50, 51, 53, 54, 56, 57, 59, 60, 61, 63, 65,

66,67, 68, 70, 72, 73, 74, 75.

Noturus gyrinus (Mitchill) tadpole madtom 31 Sites: 3, 4, 5, 7, 8, 11, 15, 25, 29, 41, 44, 48, 49, 50, 53, 54, 55,

56, 57, 63, 65, 66, 67, 68, 70, 72, 73, 74, 75, 76, 77.

Noturus leptacanthus Jordan speckled madtom 23 Sites: 15, 25, 41, 42, 44, 48, 55, 56, 57, 59, 60, 61, 62, 63, 65, 66, 68, 70, 73, 74, 75, 76, 77.

Noturus nocturnus Jordan and Gilbert

freckled madtom

4 Sites: 15, 35, 44, 56.

Pylodictis olivaris (Rafinesque) flathead catfish

7 Sites: 37, 44, 55, 65, 66, 67, 68.

Family Aphredoderidae – pirate perches

Aphredoderus sayanus (Gilliams) pirate perch 16 Sites: 16, 20, 28, 44, 45, 48, 50, 51, 53, 60, 63, 64, 68, 69, 76, 77.

Family Belonidae – needlefishes

Strongylura marina* (Walbaum) Atlantic needlefish 1 Site: Near mouth of Sucarnoochee River. Not described or shown on map.

Family Fundulidae - killifishes

Fundulus notatus (Rafinesque) blackstripe topminnow

8 Sites: 44, 47, 48, 53, 56, 57, 68, 69.

Fundulus notti (Agassiz) bayou topminnow

2 Sites: 13, 15.

blackspotted topminnow Fundulus olivaceus (Storer) 44 Sites: 3, 6, 7, 11, 15,17, 19, 20, 21, 24, 25, 32, 38, 41, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, 55, 56, 57, 59,60, 61, 62, 63,65, 66, 67, 68, 69, 70, 72,73, 74, 75, 76, 77.

Family Poeciliidae – livebearers

Gambusia affinis (Baird and Girard) mosquitofish 25 Sites: 3, 4, 5, 6, 7, 11, 15, 21, 32, 38, 46, 47, 48, 49, 51, 55, 58, 61, 66, 67, 68, 69, 70, 76, 77.

Family Atherinidae - silversides

Labidesthes sicculus (Cope) brook silverside 6 Sites: 13, 15, 44, 48, 55, 77.

Family Elassomatidae – pygmy sunfishes

Elassoma zonatum Jordan banded pygmy sunfish 20 Sites: 4, 13, 42, 44, 45, 46, 48, 50, 51, 52, 59, 60, 64, 67, 68, 69, 72, 74, 76, 77.

Family Centrarchidae – sunfishes

Ambloplites ariommus Viosca shadow bass

13 Sites: 15, 21, 41, 42, 44, 59, 62, 63, 65,67, 70, 74, 75.

Centrarchus macropterus (Lacepede)

flier

4 Sites: 1, 13, 15, 44.

Lepomis cyanellus Rafinesque green sunfish 31 Sites: 3, 4, 6, 8, 15, 16, 17, 20, 30, 34, 36, 38, 44, 45, 46, 47, 48, 49, 54, 56, 61,65, 66, 68, 69, 70, 71, 72, 73, 75, 76.

Lepomis gulosus (Cuvier) warmouth 17 Sites: 3, 13, 15, 20, 21, 45, 48, 50, 51, 52, 53, 56, 59, 61, 63, 71, 77. Lepomis humilis (Girard) orangespotted sunfish

3 Sites: 30, 35, 64.

Lepomis macrochirus Rafinesque bluegill 34 Sites: 3, 4, 5, 6, 7, 11, 13, 15, 21, 36, 38, 41, 44, 45, 46, 47, 52, 53, 54, 55, 56, 59, 61,63, 65, 66,68, 70, 71, 72, 73, 74, 75, 77.

Lepomis marginatus (Holbrook) dollar sunfish

2 Sites: 16, 21.

Lepomis megalotis (Rafinesque) longear sunfish 41 Sites: 3, 5, 6, 7, 11, 15, 20, 25, 27, 32, 38, 41, 44, 45, 46, 47, 48, 50, 51, 53, 54, 55, 56, 57, 59, 60, 61, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77.

Lepomis microlophus (Gunther) redear sunfish 7 Sites: 3, 4, 13, 15, 33, 44, 48.

Lepomis punctatus (Valenciennes) spotted sunfish 18 Sites: 2, 3, 4, 6, 8, 15, 38, 45, 50, 51, 53, 56, 57, 58,59,61, 75,77. Micropterus punctulatus (Rafinesque)

27 Sites: 3, 4, 5, 7, 15, 25, 32, 34, 35, 38, 42, 41, 44, 48, 51, 55, 59, 60, 61, 63, 65, 66, 67, 70, 73, 74, 75.

Micropterus salmoides (Lacepede) largemouth bass 19 Sites: 3, 4, 5, 7, 11, 15, 21, 35, 38, 43, 44, 46, 52, 53, 54, 56, 57, 72, 77.

Pomoxis annularis Rafinesque white crappie 6 Sites: 15, 21, 44, 46, 64, 65.

Pomoxis nigromaculatus (Lesueur)

black crappie

3 Sites: 33, 44, 65.

Family Percidae – perches

Crystallaria asprella (Jordan) crystal darter

1 Site: 15.

Etheostoma beani (Jordan) naked sand darter 12 Sites: 15, 25, 26, 41, 44, 55, 65, 66, 67, 70, 74, 75.

Etheostoma chlorosomum (Hay) bluntnose darter

9 Sites: 15, 20, 21, 38, 46, 53, 54, 64, 66.

Etheostoma histrio Jordan and Gilbert harlequin darter

Etheostoma meridianum (Williams) southern sand darter

13 Sites: 4, 15, 25, 41, 44, 48, 55, 59, 63,65, 66, 67, 70.

Etheostoma nigrum Rafinesque johnny darter 21 Sites: 4, 11, 15, 20, 22, 25, 44, 48, 50, 51, 53, 54, 55, 56, 57, 59, SFC PROCEEDINGS No. 24

63, 67, 70, 73, 75.

Etheostoma parvipinne Gilbert and Swain goldstripe darter 10 Sites: 4, 11, 15, 49, 52, 54, 56, 60, 68, 73.

Etheostoma proeliare (Hay) cypress darter 1 Site: 16.

Etheostoma rupestre Gilbert and Swain rock darter 12 Sites: 15, 25, 41, 44, 48, 55, 61, 65, 66, 73, 74, 75.

speckled darter Etheostoma stigmaeum (Jordan) 18 Sites: 15, 25, 41, 44, 48, 51, 55, 56, 57, 59,61,63,65, 66,67, 70, 73, 75.

Etheostoma swaini (Jordan) gulf darter 20 Sites: 4, 25, 28, 44, 48, 51, 52, 53, 56, 57, 58, 59, 60, 64, 65, 68, 70, 72, 74, 75.

Etheostoma whipplei (Girard) 21 Sites: 4,7, 11, 14, 15, 20, 32,38, 41, 44, 45, 47, 49, 55, 65, 66, 68, 69, 70, 71, 72.

Etheostoma zonifer (Hubbs and Cannon) backwater darter 1 Site: 15.

Etheostoma (Ulocentra) sp.

22 Sites: 3, 4, 7, 25, 48, 49,50, 51, 53,55, 56, 57, 59, 60, 61, 63, 67, 68, 70, 73, 74, 75.

Percina lenticula Richards and Knapp freckled darter 4 Sites: 15, 44, 66, 75.

Percina maculata (Girard)

blackside darter

5 Sites: 15, 20, 24, 44, 66. Percina nigrofasciata (Agassiz)

blackbanded darter

25 Sites: 3, 4, 15, 25, 41, 44, 48, 51, 53, 55, 56, 57, 59, 60, 61, 63, 65, 66, 67, 68, 70, 72, 73, 74, 75.

Percina sciera (Swain)

dusky darter

7 Sites: 8, 15, 28, 44, 65, 66, 79.

Percina vigil (Hay) saddleback darter

4 Sites: 15, 44, 55, 61. Percina sp. cf. caprodes

1 Site: 15.

Stizostedion vitreum (Mitchill)

walleye

4 Sites: 37, 44, 65, 75.

Family Sciaenidae

Aplodinotus grunniens Rafinesque

freshwater drum

4 Sites: 44, 63, 65, 75.

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