

GEOLOGICAL SURVEY OF ALABAMA

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ECOSYSTEMS INVESTIGATIONS PROGRAM

**STATUS SURVEY OF THE TRISPOT DARTER, *Etheostoma trisella*,
IN ALABAMA, 2008-2012**

OPEN-FILE REPORT 1302

by

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Prepared in cooperation with the Alabama Department of Conservation and Natural
Resources Division of Wildlife and Freshwater Fisheries

Tuscaloosa, Alabama
2013

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ABSTRACT

The Trispot Darter, *Etheostoma trisella*, was rediscovered in Little Canoe Creek (Coosa River system) in October 2008 after an absence in collections for over 50 years and was considered extirpated from Alabama streams until this discovery. Sampling over the period October 30, 2008, to March 8, 2012, during the breeding season each year yielded 968 Trispot Darters (426 males, 444 females, and 98 sex undetermined) at 39 of 188 stations sampled. In the Little Canoe Creek system the Trispot Darter was collected at 34 stations. Three significant breeding areas in the Little Canoe Creek system have been identified at this time: Gin Branch, Unnamed tributary to Little Canoe Creek on Alabama Power Company property (APCO site), and Little Canoe Creek near the St. Clair County Correctional Facility. Spawning was not restricted to these three areas and will occur in small off-channel seeps and seasonally wet tributaries wherever acceptable breeding habitat occurs. Our survey area was extended during the second year of the study, yielding Trispot Darters from five additional stations in the Ballplay Creek system, which further expanded the darter's known range in Alabama. Two distinct habitat types were observed for this species: breeding and non-breeding. Non-breeding habitat occurred in the deeper, larger portions of Little Canoe and Ballplay Creeks, while breeding habitat consisted of shallow, ephemeral tributaries with direct connections to Little Canoe and Ballplay Creeks. Trispot Darters were in migration from non-breeding to breeding habitat from October through January and were observed occupying breeding habitat from February through March. By early April breeding sites were for all purposes uninhabited with only a few spent individuals remaining. By summer many of these breeding sites were completely dry.

INTRODUCTION

The Trispot Darter, *Etheostoma trisella*, was described by Bailey and Richards (1963) from one individual collected in Cowans Creek, a small Coosa River tributary in Cherokee County, Alabama, in 1947. The type locality was inundated by Weiss reservoir in 1960. An additional Alabama specimen was collected in 1958 by Jack Dendy of Auburn University in the main stem of the Coosa River in Etowah County (Ramsey, 1976). That locality was inundated by Neely Henry Lake in 1965. Attempts to collect the species in appropriate habitat throughout the upper Coosa River system in Alabama since the discovery of the first two individuals, including an intensive survey for the species (Neely and Mayden, 1999), failed to produce additional specimens (Mettee and others, 1996; Boschung and Mayden, 2004; Warren, 2004). Due to the perceived elimination of habitat by impoundment, effects of polluted runoff in rural areas of the upper Coosa Valley in Alabama, and the lengthy absence of collection records in the state, the species was presumed to be extirpated in Alabama (Warren, 2004). While conducting a biological assessment of the Big Canoe Creek system, biologists with the Geological Survey of Alabama (GSA) and U.S. Fish and Wildlife Service (USFWS) collected three individuals of the Trispot Darter in Little Canoe Creek near Springville, St. Clair County, on October 30, 2008. Additional sampling in the Little Canoe Creek system over the following five months revealed Trispot Darters at 12 of 22 stations in a brief survey for the species. Two active breeding sites were discovered and sampling data suggested that the distribution of Trispot Darters in the Little Canoe Creek system was likely more widespread (O'Neil and others, 2009).

Trispot Darters are also known from the Conasauga River system in Georgia and Tennessee and the Coosawattee River system in Georgia (Howell and Caldwell, 1967; Etnier, 1970; Bryant and others, 1979; Warren, 2004). Until discovery of the population in Little Canoe Creek, these were thought to be the only viable populations of the species. A detailed life history study was conducted on the Conasauga River population by Ryon (1986), who examined reproductive biology, food items, breeding and non-breeding habitats, parasites and predation, age, growth, and larval development. Like other members of the subgenus *Ozarka*, the Trispot Darter utilizes

distinctive non-breeding and breeding habitats. In the non-breeding season (mid-April to mid-October) Trispot Darters inhabited edges of shallow pools and backwaters of the Conasauga River and some tributaries. The darters began to move up tributaries toward breeding sites in late autumn and congregated in and near breeding areas from late November until late April. Ryon described the main breeding area in his study as a small seepage area flowing through a pasture with a clay substrate covered by silt. As water levels rose, Trispot Darters also utilized more ephemeral side ditches which had firmer substrates containing both aquatic and terrestrial vegetation. Spawning behavior was observed in laboratory aquaria by Ryon (1986) and he determined that Trispot Darters were egg attachers with no parental care of the eggs.

The Trispot Darter is not a federally listed endangered or threatened species; however, it is listed as endangered in the most recent list of imperiled freshwater and diadromous fishes of North America by the Endangered Species Committee of the American Fisheries Society (AFS) (Jelks and others, 2008). The listing is an elevation from threatened status in the previous 1989 AFS list (Williams and others, 1989). Reasons for the listing were present or threatened destruction, modification, or reduction of habitat or range, and a narrowly restricted range. The species is listed as endangered by the state of Georgia (Georgia Department of Natural Resources, 2006) and threatened by the state of Tennessee (Withers, 2009). Since Trispot Darters had not been collected in Alabama since 1958 at the time of the most recent compilation of imperiled fishes in Alabama (Mirarchi and others, 2004), the species was listed as extirpated in the state (Warren, 2004).

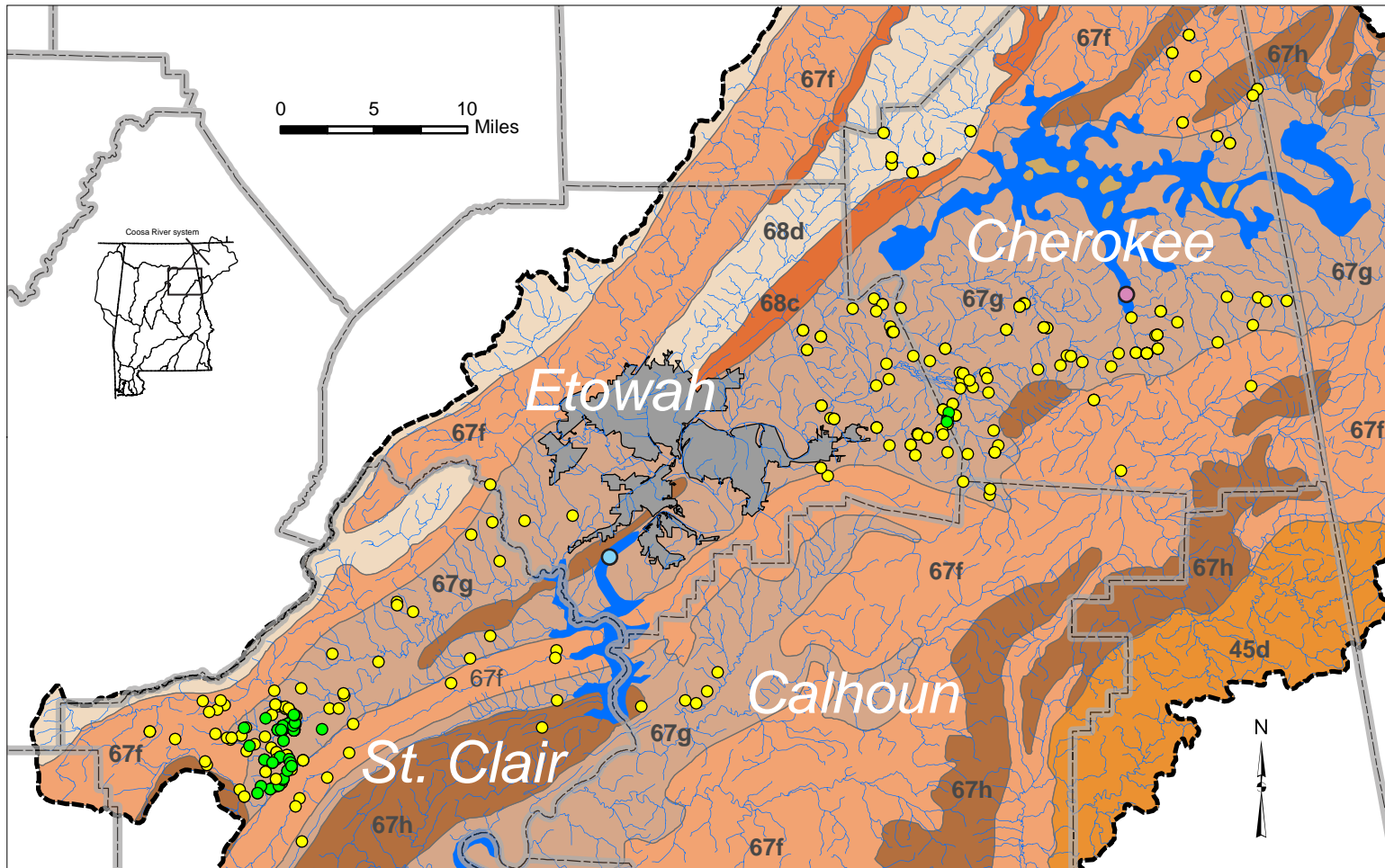
The objective of this study was to locate new populations of the Trispot Darter in Alabama and document the distribution and relative abundance of the species in the state. Additionally, time was spent examining and refining our knowledge of potential breeding areas in Alabama to assist in future conservation activities.

ACKNOWLEDGMENTS

Many individuals were involved in this survey and we sincerely appreciate their efforts. Marty Kodis of the USFWS and Brett Smith and Anne Wynn of the GSA were part of the original discovery team along with Jeff Powell, Cal Johnson, and Pat O'Neil. Steve Rider, Dan Catchings, and Rob Andress of the Division of Wildlife and Freshwater Fisheries (DWFF) of the Alabama Department of Conservation and Natural Resources (ADCNR) participated in sampling. John Grogan of Alabama Power Company (APCO) arranged for sampling on APCO corporate property, and Steve Krotzer, Casey Knight, Jeff Baker, and Chad Fitch, biologists with APCO, participated in sampling and located the largest breeding population of Trispot Darters during the survey. Bernard Kuhajda and Brook Fluker with the University of Alabama Ichthyological Collection (UAIC) and Biological Sciences Department respectively assisted with sampling and obtained fin clips of Trispot Darters for genetic comparisons with the Conasauga River population. Mr. Chris Donald, Mr. Charles Beauchamp, and Mr. Earl Pierce kindly allowed access to Little Canoe Creek on their properties, and we appreciate their courtesy and support.

STUDY AREA

This survey focused on tributaries of the upper Coosa River system in the Ridge and Valley level III ecoregion (Griffith and others, 2001). Collections were limited to the Southern Limestone/Dolomite Valleys and Low Rolling Hills (67f), Southern Shale Valleys (67g), and Southern Sandstone Ridges (67h) level IV ecoregions within the Valley and Ridge (fig. 1). Counties in the study area include St. Clair, Calhoun, Cherokee, and Etowah. Sampling stations were selected based on their habitat similarity to known collection localities for the species. Coosa River tributary systems sampled for the Trispot Darter included Cowan, Sandy, Spring, Ballplay, Dry, Perimeter, Big Canoe, Beaver, Ohatchee, and Shoal Creeks. A few tributaries to Terrapin Creek were sampled including Shaver Branch, Little Creek, Frog Creek, and Dry Creek.



Explanation

- | | | | |
|--------------------|--|-----------------------------|---|
| Counties | Coosa River watershed boundary | 68c Plateau Escarpment | 67f Southern Limestone/Dolomite Valleys and Low Rolling Hills |
| Reservoirs | Station where <i>E. trisella</i> was collected | 68d Southern Table Plateaus | 67h Southern Sandstone Ridges |
| Gadsden city limit | Station where <i>E. trisella</i> was not collected | 45d Talladega Upland | 67g Southern Shale Valleys |
| Streams | Type locality (1947) | | |
| | Dendy (AU) locality (1958) | | |

Figure 1. Sampling stations for the Trispot Darter in Alabama, 2008-12.

Little Canoe Creek is a tributary of Big Canoe Creek which itself is a western tributary of the Coosa River in St. Clair and Etowah Counties. The upper reaches of Big Canoe and Little Canoe Creeks originate in the Southern Sandstone Ridges (67h) and Southern Limestone/Dolomite Valleys and Low Rolling Hills (67f) ecoregions while the middle and lower reaches of the Big Canoe system flow through the Southern Shale Valleys ecoregion (67g) eventually entering the Coosa River south of Rainbow City. The lower 8.2 miles of Big Canoe Creek are impounded by backwaters of the Coosa River from H. Neely Henry Lake (fig. 1). Ballplay Creek, a tributary found in the Middle Coosa drainage upstream of Big Canoe Creek, flows northwest through Calhoun, Cherokee, and Etowah Counties in the Southern Shale Valleys ecoregion (67g). Much of Ballplay Creek has little topographic relief, resulting in low gradient streams and extensive forested and emergent wetland areas.

The Southern Shale Valleys ecoregion ranges in elevation from 400 to 1,100 feet above sea level and is described as having undulating to rolling valleys consisting primarily of shale. Streams in this ecoregion have moderate to low gradients and cut through clayey sediments and shaly limestone (Griffith and others, 2001). The land use and land cover of this region is primarily pasture that has reverted to mixed forest and brush on steep slopes while soybeans, hayfields, and corn make up the bottomlands and foot hills (Griffith and others, 2001).

METHODS

Sampling was conducted in permanent and ephemeral streams offering the potential to be inhabited by Trispot Darters. The sampling period for the survey was from October 2008 through March 2012 which corresponds to the seasonal migration and spawning period. Emphasis was given to sampling in the Big Canoe system in 2008-09 since that was the location of the initial rediscovery of the Trispot Darter in October 2008. Streams tributary to Weiss Lake were targeted in 2009-10 since Cowans Creek, a tributary to Weiss Lake, is the type locality for the Trispot Darter. The target area was expanded to streams north of Weiss Lake in the 2010-11 sampling season.

For 2012 the search was focused in the Ballplay Creek system in Cherokee and Etowah Counties where access could be obtained.

It is known that members of the subgenus *Ozarka* utilize two distinct habitats, breeding and non-breeding, in which individuals will migrate short distances from the non-breeding stream habitat to shallow off-channel breeding habitat (Ryon, 1986). Individuals captured in the main channel of Little Canoe Creek were surmised to be in route to breeding habitat because of their capture during the migration time of the year (October through January) and their presence or absence would indicate the status of such movements. Smaller tributaries flowing into Little Canoe Creek were checked regularly from November through April for the presence of darters and to monitor the reproductive condition of darters by observing nuptial coloration and degree of gonad development. Small mesh nylon minnow seines, dip nets, and a backpack electrofisher were used to collect darters and associated fish species. The majority of individuals were examined on site and returned to the stream, but a few were preserved as vouchers to document new discovery stations and are housed at the GSA and the UAIC.

Caudle fin clips of approximately 77 individuals were taken for genetic analysis by biologists with UAIC (University of Alabama Ichthyological Collection) and are to be compared to other Trispot Darter populations in the Upper Coosa River in Georgia and Tennessee. The fin clip procedure consisted of clipping the top third portion of the caudal fin and placing the tissue in a 95 percent ethanol solution. The individual was then returned to the stream.

RESULTS AND DISCUSSION

A total of 285 collections from 159 stations were made in eastern and western Coosa River tributaries between October 30, 2008, and March 8, 2012. The western tributaries of the Coosa River consisted of Bridge Creek, Beaver Creek, Shoal Creek, Big Canoe Creek, Yellow Creek, and tributaries of the Chattooga River. Tributary systems sampled on the eastern side of the Coosa River included Big Cove Creek, Turkeytown Creek, Little Dry Creek, Dry Creek, Ballplay Creek, Sugar Creek, Terrapin

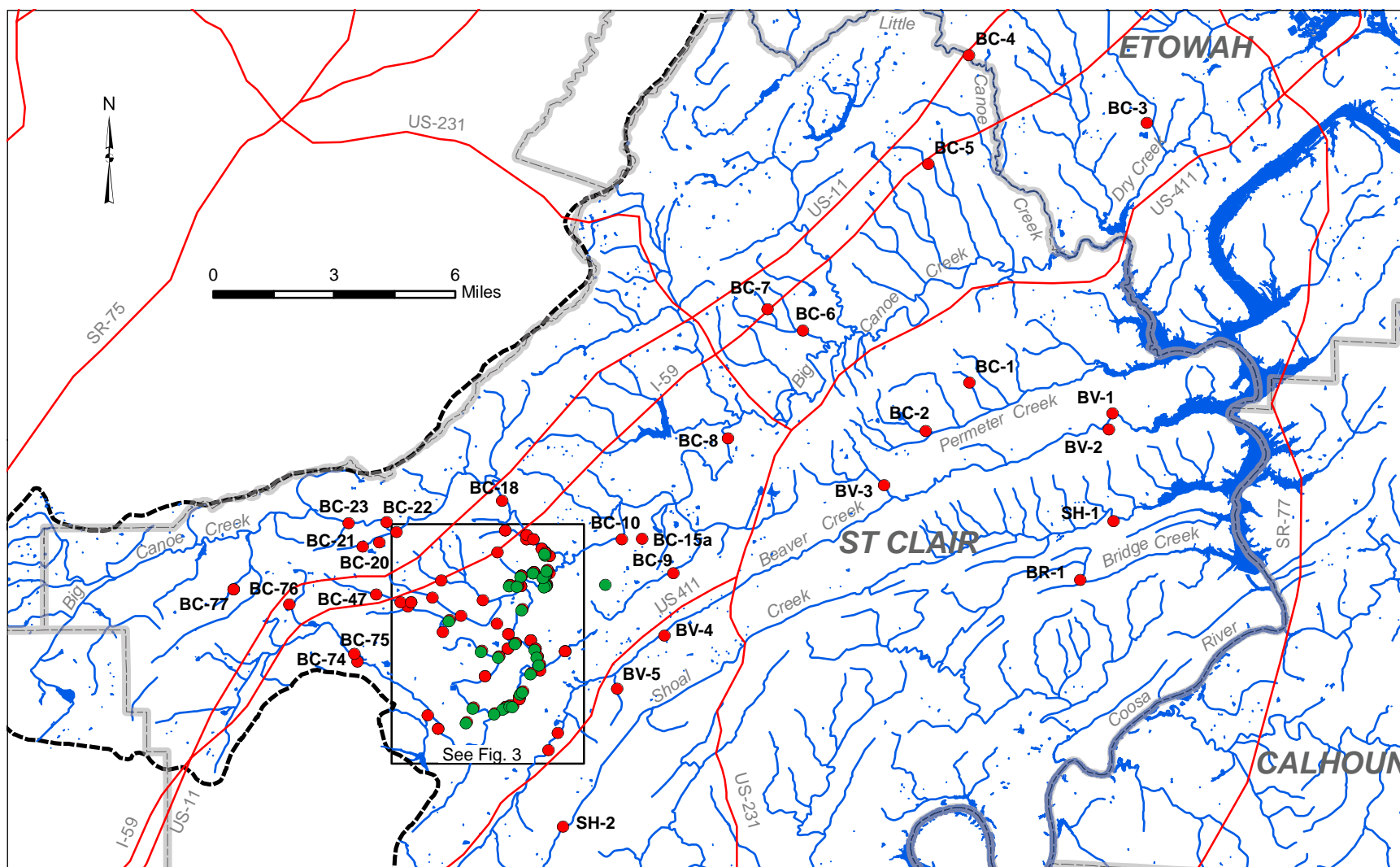
Creek, Cowan Creek, Spring Creek, another Ballplay Creek located on the Alabama/Georgia state line, Ohatchee Creek, and five small unnamed tributaries. Collections in these tributaries (fig. 1) resulted in the capture of 968 Trispot Darters (table 1, appendix A). During the first year of study, 37 collections were made between October 30, 2008, and April 1, 2009, at 21 stations with 207 Trispot Darters found (87 males, 110 females, and 10 sex undetermined). In the following year of study 127 collections were made at 99 stations from November 5, 2009, until April 1, 2010. There were 444 individuals captured and of those 198 were males, 231 were females, and 15 were sex undetermined. From January 6 to March 21, 2011, 82 collections were made at 67 stations yielding 287 Trispot Darters (134 male, 93 female, and 60 sex undetermined). In the final year of survey (2012) several new sampling stations were added in both the Big Canoe and Ballplay Creek systems. A total of 33 stations were visited and 39 collections were made yielding 30 Trispot Darters (7 male, 10 female, and 13 sex undetermined). During 2012 the range of the Trispot Darter was extended further upstream in Big Canoe Creek system (stations BC-40 and BC-46), where they were previously not collected. These sites represent the known upstream limit of spawning in the system.

Trispot Darters were found at 34 of 82 stations sampled in western tributaries to the Coosa River (fig. 2) with most occurrences in Little Canoe Creek and one location in a small tributary to Big Canoe Creek. Two areas in Little Canoe Creek were identified where Trispot Darters were regularly taken. The first area extends from about Ala. Hwy. 23 in St. Clair County downstream to an unnamed tributary near Gin Branch (fig. 3) and the other area is upstream and downstream of the St. Clair County Correctional Facility. Over the four seasons of survey 534 darters have been found both in the main channel of Little Canoe Creek and in small seasonal tributaries in the Gin Branch area, and 68 darters were found in the Correctional Facility area. In the 2011 sampling season, darters were found in five new tributaries downstream of the Correctional Facility area and upstream of the Gin Branch breeding area (stations BC-57, BC-59, and stations BC-64 to BC-66). One dead female was discovered by APCO (Alabama Power Company) biologists in a headwater branch of an unnamed tributary to Little Canoe

Table 1. Summary survey information for the Trispot Darter in Alabama, 2008-12.

Date	No. stations ¹	Total collections	Males		Female		Sex Undetermined		Total
			No.	Percent	No.	Percent	No.	Percent	
Oct 2008 - Apr 2009	21	37	87	42.0	110	53.1	10	4.8	207
Nov 2009 - Mar 2010	99	127	198	44.6	231	52.0	15	3.4	444
Jan 2011 - Mar 2011	67	82	134	46.7	93	32.4	60	20.9	287
Jan 2012- Mar 2012	33	39	7	23.3	10	33.3	13	39.4	30
Totals	188	285	426		444		98		968

¹- some stations were sampled in multiple years



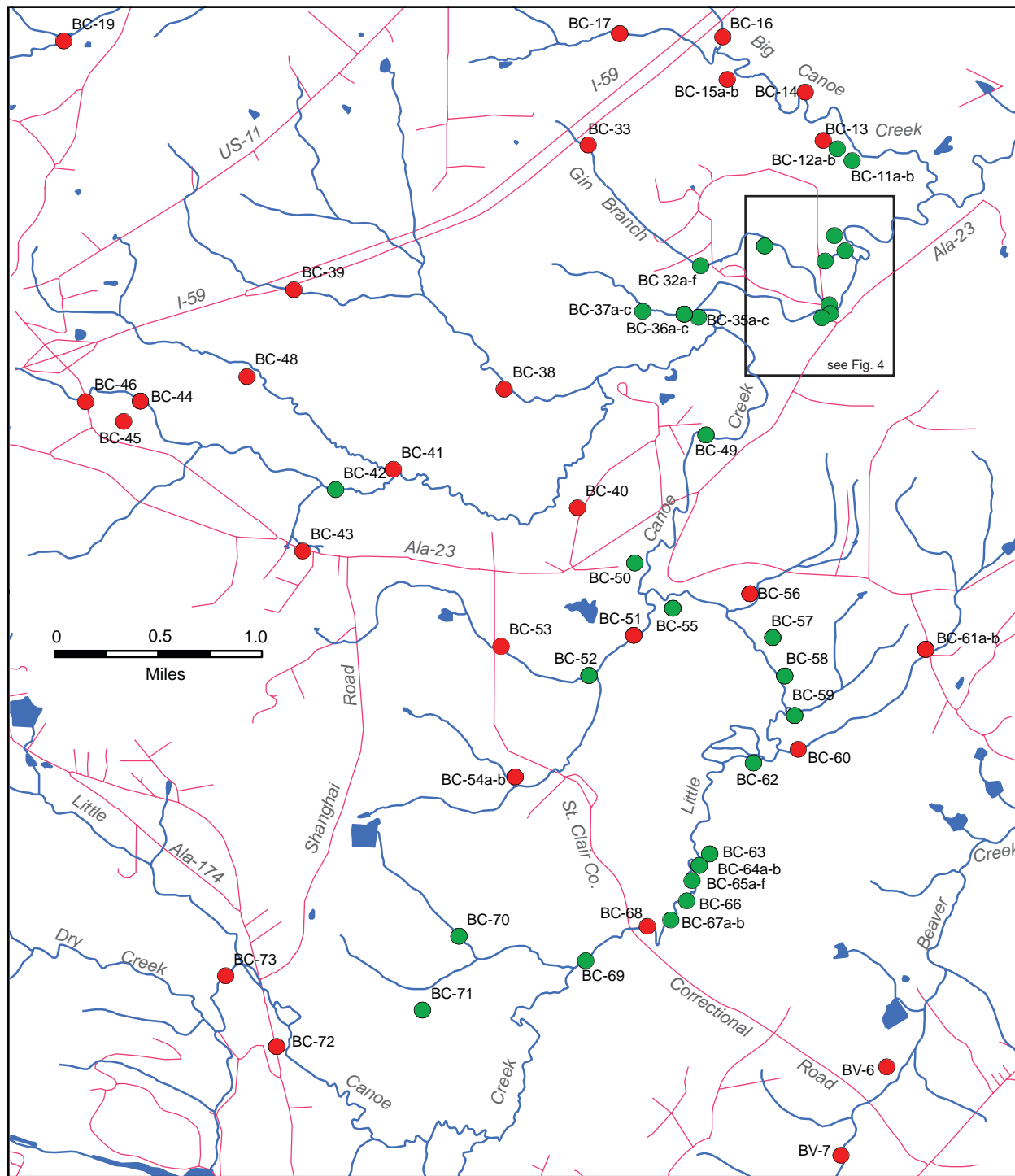
Explanation

- Stations where *E. trisella* was collected
- Stations where *E. trisella* was not collected

- Major roads
- Streams

- Coosa River watershed boundary
- ▭ Counties
- Open water

Figure 2. Sampling stations for the Trispot Darter in the western section of the study area in Alabama.



Explanation

- Stations where *E. trisella* was collected
- Stations where *E. trisella* was not collected
- Streams
- Roads
- Ponds

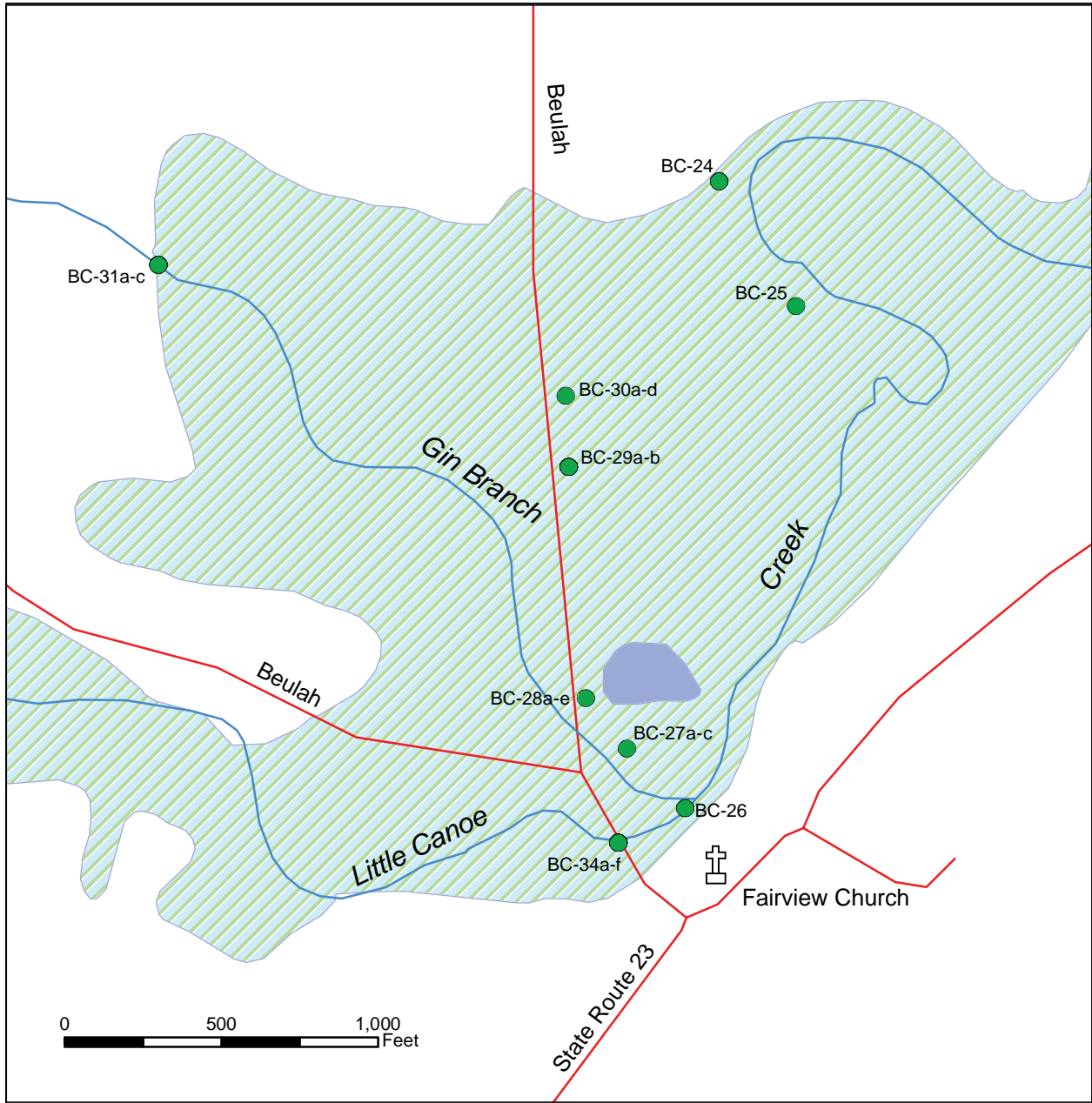
Figure 3. Detail of sampling stations for the Trispot Darter in the western section of the study area in Alabama.

Creek (station BC-42) on APCO property which may indicate that this area is likely a breeding site for the species as well.

Two sites in particular in Little Canoe Creek supported healthy breeding populations of the Trispot Darter. One was the Gin Branch complex which includes Gin Branch proper and an unnamed tributary (unnamed tributary-1) that darters use to access a wetland on Gin Branch (stations BC-37 to BC-39 and BC-41) and the other was a small unnamed tributary (unnamed tributary-2) on APCO property that flows into Little Canoe Creek just upstream of Gin Branch (stations BC-42 to BC-44) (figs. 4, 5). Population densities during peak breeding times were high with over 50 darters in spawning condition found in each of these two breeding sites on February 12, 2009, with 98 collected February 8, 2011, at station BC-43.

The breeding habitat preferences of Trispot Darters found in Little Canoe Creek were similar to breeding habitat described for the Conasauga River population by Ryon (1986) and for the Slackwater Darter, *Etheostoma boschungi*, in the Tennessee River drainage (Boschung and Nieland, 1986; Johnston, 2004). Prebreeding congregations of Trispot Darters were observed from late October through early January in the main channel of Little Canoe Creek, with individuals on location in breeding sites from January through March. During the prebreeding spawning migration, males and females were found congregated in shoal and riffle areas in the main channel of Little Canoe Creek, sometimes over sand and gravel, and at other times associated with leaf packs and dead *Justicia* stems, while during the breeding season darters were found concentrated in small tributaries with little to no flow and were associated with leaf packs and emergent vegetation over a mixed gravel/sand/mud substrate. By April, darters had abandoned breeding sites and migrated back to nonbreeding habitat. Stations BC-37 and BC-42 were completely dry on August 26, 2010 (appendix C).

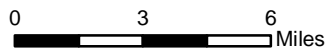
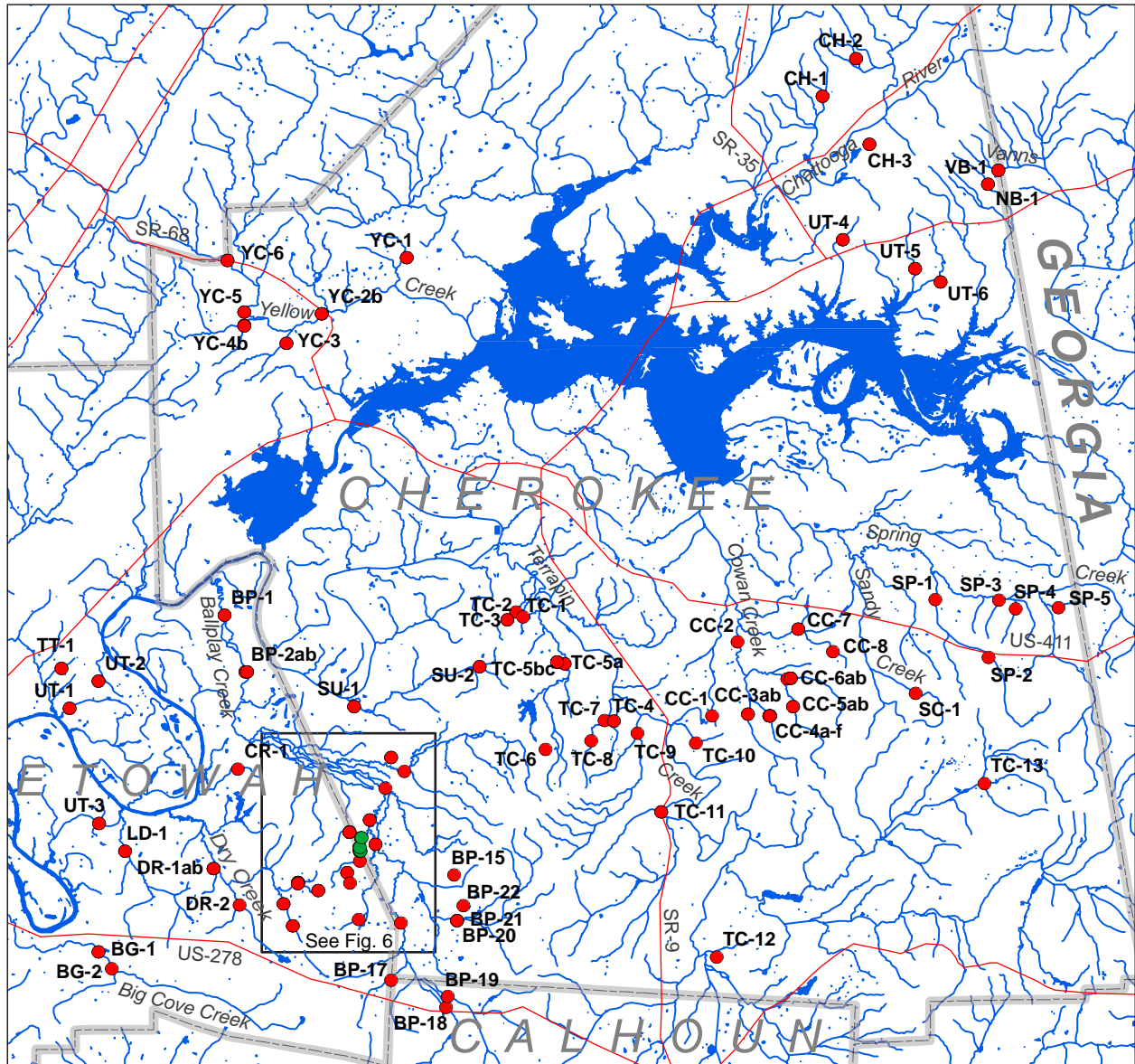
A new breeding area was discovered in the Ballplay Creek system during the second year of study—stations BP-14, BP-16, BP-17, and BP-19 (figs. 5, 6). Out of 46 stations sampled in eastern tributaries to the Coosa River during the second year of study only these four stations supported breeding individuals of the Trispot Darter. Substrate at these stations was similar to that in Little Canoe Creek and was



Explanation

- Stations where *E. trisella* was collected
 - Stations where *E. trisella* was not collected
- Forest/Shrub Wetland
 - Pond
- Creeks
 - Roads

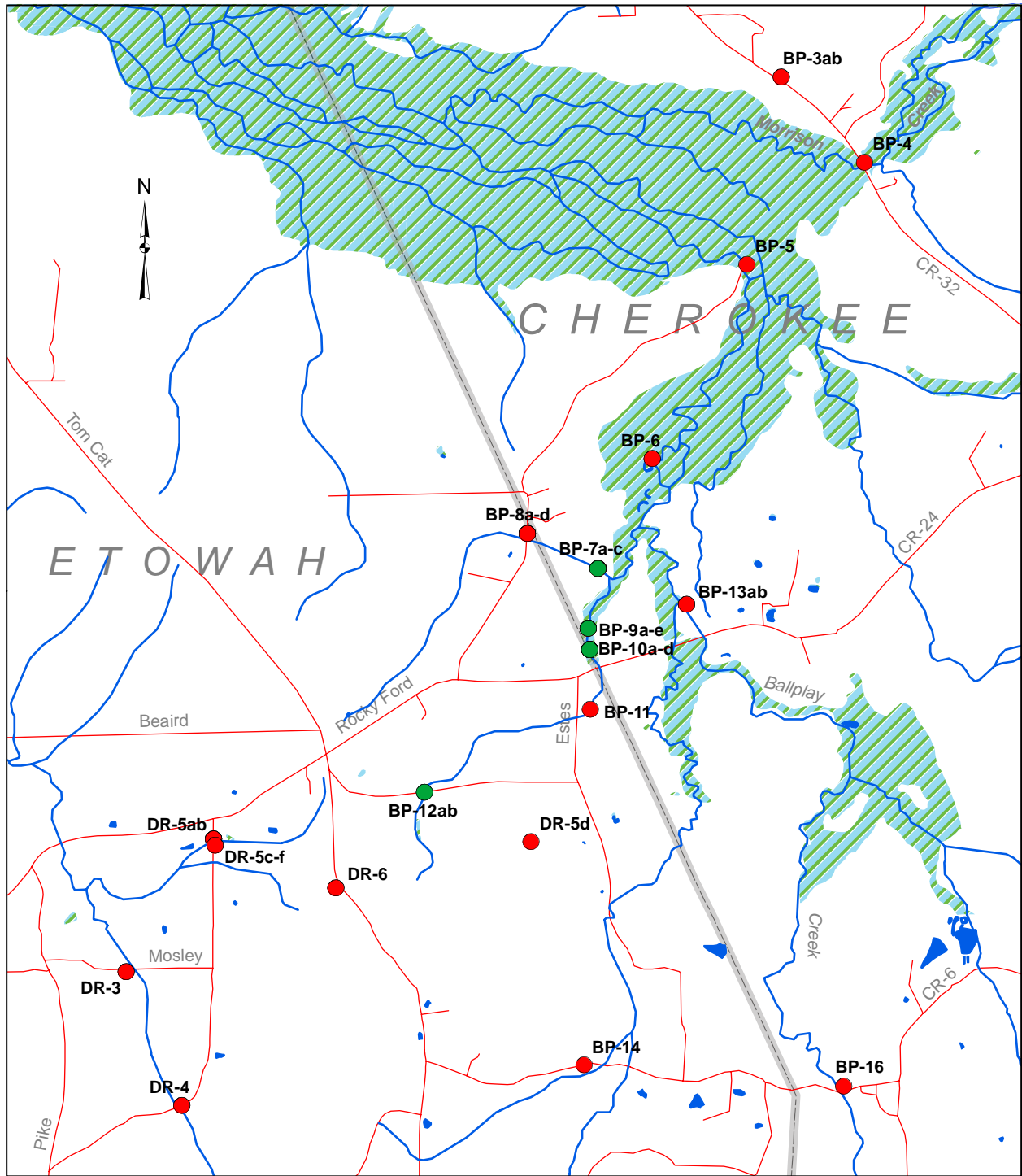
Figure 4. Detail of sampling stations for the Trispot Darter in the Gin Branch-Little Canoe Creek area in Alabama.



Explanation

- Stations where *E. trisella* was collected
 - Stations where *E. trisella* was not collected
- Major highways
 - Streams
- Counties
 - Open water

Figure 5. Sampling stations for the Trispot Darter in the eastern section of the study area in Alabama.



Explanation

- Stations where *E. trisella* was collected
- Streams
- Wetlands
- Counties
- Stations where *E. trisella* was not collected
- Roads
- Ponds

Figure 6. Detail of sampling stations for the Trispot Darter in the Ballplay Creek system in Alabama.

characterized by shallow, clay- or silt-bottomed, ephemeral tributaries. We revisited the Ballplay Creek breeding sites on August 26, 2010, and found them to be completely dry as well (appendix C).

Sampling in 2011 focused on eastern tributaries to the Coosa River to possibly expand the range and to evaluate available breeding habitat. Of the 82 collections from that area, 49 (60 percent) were made in the Weiss Lake area and 33 collections (40 percent) were made in the Big Canoe Creek watershed. New breeding locations were discovered in direct tributaries to Big Canoe Creek— stations BC-11, BC-12. However, we did not add any new darter locations in the Ballplay Creek system but remain optimistic that Ballplay Creek is a major breeding area due to the fact that a substantial amount of breeding habitat was observed but was not sampled.

Nineteen new stations and 39 collections were added in 2012 with sampling focused primarily on searching for new locations in the Ballplay Creek system. Sampling efforts were unsuccessful; however, Ballplay Creek is characterized by an expansive forested wetland/marsh system that is difficult to access and Trispot Darters are likely distributed throughout this area.

Rediscovery of the Trispot Darter in Alabama is a significant addition to the known global range of this species, will help clarify its conservation status in Alabama, and will provide new conservation opportunities for the species. The Trispot Darter inhabits small intermittent streams four months out of the year for breeding purposes. The remainder of the year, mid-spring through fall, is spent migrating to and from breeding areas and over-summering in deeper portions of main channel habitats of larger streams. As such, threats to the survival of the Trispot Darter may be numerous and complex, especially in areas of rapid land conversion. The Little Canoe Creek watershed around Springville is a mixture of rural and urban landscapes and the many small farms and pastures are quickly being converted to neighborhoods and shopping areas as population moves northeast from Jefferson County.

Urbanization results in a significant increase in impervious land areas and a parallel increase in runoff of stormwater, sediment, and pollutants into Little Canoe Creek. Unless construction activities associated with rapid development are managed in

a reasonable way with adequate best management practices and protections for the main channel, nonbreeding habitat of the Trispot Darter could quickly degrade. This appears to be the case in Little Canoe Creek between I-59 downstream to Ala. Hwy. 174. This section is rapidly developing and the stream channel has substantial bedload sediment and the stream banks have obvious signs of erosion. Development pressure appears to be less around the identified breeding areas further downstream in Little Canoe Creek. Small logging operations and poorly maintained unpaved roads appear to be land use activities in these areas that may limit populations. However, we were successful in capturing breeding individuals in small seeps and channels draining both aged and fairly recent clear cuts. Since migration corridors between nonbreeding and breeding habitat are essential, activities that disrupt or completely sever their hydrologic connectivity, such as unmanaged haul roads and blocked drainage culverts, if enacted on a large enough scale, could adversely affect local darter populations by blocking migrations.

Ryon (1986) postulated that if Trispot Darter recruitment is low for a span of two to three years, then this could result in the extirpation of local populations. Another factor affecting recruitment generally not considered is the effect of prolonged drought. Trispot darters rely on seasonal wet years with sustained higher flows to recharge groundwater aquifers and maintain the hydrologic quality of breeding sites during drier periods. Extreme drought, or increase in the occurrence of drought, can lead to breeding streams with extended periods of dried channels and(or) low flow ultimately affecting reproduction and recruitment. Considered individually, any one of these threats may not cause substantial long-term problems in darter populations, but when these threats become coupled, such as drought with land conversion from forested rural areas to developed areas and(or) loss of hydrologic connectivity, then the probability of negative consequences for Trispot Darter populations will most likely increase.

Conservation of the Trispot Darter will require a cooperative effort between willing landowners, local watershed conservation organizations, and conservation agencies. One of the more important conservation strategies would be to manage development in a way to minimize stormwater runoff. Sedimentation is a problem the

Trispot Darter faces, particularly in its nonbreeding habitat, but also in its breeding habitat in small ephemeral streams. One proven way to help control the rate of erosion is by selected harvesting of timber and implementation of voluntary forestry best management practices (BMPs) (Alabama Forestry Commission, 1993). Consistent implementation of forest management BMPs will result in a lower sediment load entering streams and can maintain the integrity of small, off channel, breeding sites. Some of the small tributaries that supported Trispot Darters originated in areas that had been clear cut about five years earlier. Based on these observations, we can conclude that maintaining an adequate riparian zone near Little Canoe Creek and establishing a healthy streamside management zone (SMZ) around the smaller intermittent tributaries will result in significant conservation opportunities for Trispot Darter populations.

Another strategy would be to purchase or establish a conservation easement for land around the more significant breeding sites. Conservation easements are particularly attractive because the land is maintained for current uses, or enhanced conservation uses, with the land owner reaping tax benefits for implementing such an easement. These strategies can be effective but willing land owners will be key to this process.

A third conservation strategy that may be needed sometime in the future would be implementing a propagation, translocation, reintroduction, and augmentation (PTRA) project. Propagation refers to the production of individuals in a captive environment for the purpose of reintroduction. Translocation is described as the capture of individuals from the wild with the purpose of reintroducing the target species where it once previously occurred. Reintroduction is the release of the target species to their known historic range where a population no longer exists, and augmentation is when new individuals are added to an already preexisting population (George and others, 2009). A PTRA effort is not needed at this time but should it be at some future time, a plan addressing the specific biological and habitat needs and recovery goals for the Trispot Darter would need to be devised. At the heart of any of these plans is to restore breeding and nonbreeding habitat to an acceptable physical and biological condition to support this species.

RECOMMENDATIONS

This study has answered fundamental questions concerning the distribution of the Trispot Darter in Alabama, described breeding habitat, documented spawning conditions at breeding sites, and qualitatively determined the seasonal movements of Trispot Darters. From these surveys and observations we conclude that Trispot Darters are in need of protection and conservation in Alabama waters. The following recommendations are offered as part of a comprehensive conservation strategy for the Trispot Darter in Alabama.

First, initiate watershed recovery efforts in the Little Canoe Creek system organized around the statewide cooperative Strategic Habitat Unit (SHU) initiative (O'Neil and others, 2008; Wynn and others, 2012). The SHU process has begun in Big Canoe Creek and activity will increase in 2012-13 to include completion of a detailed aquatic biological inventory, a fish community biological assessment, an assessment of threats to the biological integrity of Big Canoe Creek, an assessment of aquatic habitat conditions in the watershed, and development of an action plan to address these threats. This information base can be integrated with community and county development plans, the desires of developers and watershed conservation groups in the watershed, public utilities, and land owners to organize a cooperative Big Canoe Creek watershed stakeholder group for improving water quality in the watershed.

The Trispot Darter was not assigned a priority status designation in the last published State Wildlife Plan (Mirarchi and others, 2004) but was considered extirpated due to its absence in collections for over 50 years. Rediscovery of the Trispot Darter in Alabama in 2008 has led to the need to assign a priority status designation. The State Wildlife Plan was updated in late 2012 and after consideration by a formal committee of recognized state ichthyologists and fish scientists the Trispot Darter was recommended as a species of high conservation concern (Priority 2—P2) because it satisfies three of the four ranking criteria: rarity, very limited distribution, specialized habitat needs, and habitat vulnerability due to natural/human-caused factors.

REFERENCES CITED

- Alabama Forestry Commission, 1993, Alabama's best management practices for forestry 1993: Alabama forestry Commission, 30 p.
- Bailey, R.M., and Richards, W.J., 1963, Status of *Poecilichthys hopkinsi* Fowler and *Etheostoma trisella*, new species, percid species from Alabama, Georgia, and South Carolina: University of Michigan, Occasional Papers of the Museum of Zoology, no. 630, 21 p.
- Boschung, H.T., and Mayden, R.L., 2004, Fishes of Alabama: Washington, Smithsonian Books, 736 p.
- Boschung, H.T., and Nieland, D.L., 1986, Biology and conservation of the slackwater darter, *Etheostoma boschungi* (Pisces: Percidae): Proceedings of the Southeastern Fishes Council, v. 4, p. 1-4.
- Bryant, R.T., Bauer, B.H., Ryon, M.G., and Starnes, W.C., 1979, Distributional notes on fishes from northern Georgia with comments on the status of rare species: Southeastern Fishes Council Proceedings, v. 2, no. 4, p. 1-4.
- Etnier, D.A., 1970, Additional specimens of *Etheostoma trisella* (Percidae) from Tennessee: Copeia, no. 2, p. 356-358.
- George, A.L., Kuhajda, B.R., Williams, J.D., Cantrell, M.A., Rakes, P.L., Shute, J. R., 2009, Guidelines for Propagation and Translocation for Freshwater Fish Conservation. Fishes, v. 34, no. 11, p 529.
- Georgia Department of Natural Resources, 2006, Protected species of plants and animals: Georgia Department of Natural Resources, Wildlife Resources Division, 7 p.
- Griffith, G.E., Omernik, J.M., Comstock, J.A., Lawrence, S., Martin, G., Goddard, A., Hulcher, V.J., and Foster, T., 2001, Ecoregions of Alabama and Georgia, (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,700,000).
- Howell, W.M., and Caldwell, R.D., 1967, Discovery of a second specimen of the darter *Etheostoma trisella*: Copeia, no. 1, p. 235-236.
- Jelks, J.L., Walsh, S.J., Burkhead, N.M., Contreras-Balderas, S., Díaz-Pardo, E., Hendrickson, D.A., Lyons, J., Mandrak, N.E., McCormick, F., Nelson, J.S., Platania, S.P., Porter, B.A., Renaud, C.B., Schmitter-Soto, J.J., Taylor, E.B., and Warren, M.L., Jr., 2008, Conservation status of imperiled North American freshwater and diadromous fishes: Fisheries, v. 33, no. 8, p. 372-407.

Johnston, C.E., 2004, Slackwater darter, *Etheostoma boschungii*, p. 186 in Mirarchi, R.E., Garner, J.T., Mettee, M.F., and O'Neil, P.E., eds., 2004, Alabama Wildlife, Volume 2, Imperiled aquatic mollusks and fishes: Tuscaloosa, The University of Alabama Press, 225 p.

Mettee, M.F., O'Neil, P.E., and Pierson, J.M., 1996, Fishes of Alabama and the Mobile Basin: Birmingham, Alabama, Oxmoor House, 820 p.

Mirarchi, R.E., Garner, J.T., Mettee, M.F., and O'Neil, P.E., eds., 2004, Alabama Wildlife, Volume 2, Imperiled aquatic mollusks and fishes: Tuscaloosa, The University of Alabama Press, 225 p.

Neely, D.A., and Mayden, R.L., 1999, Status survey of the Trispot Darter (*Etheostoma trisella*) in Alabama: unpublished report to the Alabama Department of Conservation and Natural Resources, 23 p.

O'Neil, P.E., McGregor, S. W., and Wynn, E. Anne, 2008, Critical habitat units for threatened and endangered mussels in the Mobile River Basin: Alabama Geological Survey Special Map 247, 1 plate.

O'Neil, P.E., Shepard, T.E., Johnson, C.C., Spadgenske, E., and Powell, J.R., 2009, Rediscovery of the Trispot Darter, *Etheostoma trisella*, in Alabama: Alabama Geological Survey open-file report 0909, p 23.

Ramsey, J.S., 1976, Freshwater fishes, in, Boschung, H., ed., Endangered and threatened plants and animals of Alabama: Alabama Museum of Natural History Bulletin 2, 92 p.

Ryon, M.G., 1986, The life history and ecology of *Etheostoma trisella* (Pisces: Percidae): American Midland Naturalist, v. 115, no. 1, p. 73-86.

Warren, M.L., 2004, Trispot Darter, *Etheostoma trisella*, p. 173 in Mirarchi, R.E., Garner, J.T., Mettee, M.F., and O'Neil, P.E., eds., 2004, Alabama Wildlife, Volume 2, Imperiled aquatic mollusks and fishes: Tuscaloosa, The University of Alabama Press, 225 p.

Williams, J.E., Johnson, J.E., Hendrickson, D.A., Contreras-Balderas, S., Williams, J.D., Navarro-Mendoza, M., McAllister, D.E., and Deacon, J.E., 1989, Fishes of North America: endangered, threatened, or of special concern: Fisheries, v.14, no. 6, p. 2-20.

Withers, D.I., 2009, A guide to the rare animals of Tennessee: Tennessee Department of Environment and Conservation, Division of Natural Areas, 61 p.

Wynn, E.A., O'Neil, P.E., McGregor, S.W., Powell, J.R., Pritchett, J.M., Ford, A.D., and Johnson, P.D., 2012, Strategic habitat and river reach units for aquatic species of conservation concern in Alabama: Alabama Geological Survey Special Map 248.

Appendix A

List of sampling stations for the Trispot Darter in Alabama, 2008-12

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BR-1	Bridge Creek at Co. Hwy. 21	St. Clair	33.7809	86.1322	sec. 33, T. 14 S., R. 5 E.	9-Mar-10	1150-1210	0	Sampled from ~ 300 ft. downstream of bridge up to the bridge. Slow flow with stream substrate cobble, bedrock, and sand. Good habitat but stream was too large to sample effectively.	Pat O'Neil, Andrew Henderson
SH-1	Unnamed tributary to Shoal Creek at Co. Hwy. 21	St. Clair	33.8019	86.1178	sec. 21, T. 14 S., R. 5 E.	9-Mar-10	1045-1110	0	Sampled from Shoal Creek upstream to road crossing. Good habitat but mostly sand substrate with some flow, snags, and gravel. No darters.	Pat O'Neil, Andrew Henderson
SH-2	Shoal Creek at Hardwick	St. Clair	33.6936	86.3556	sec. 29, T. 15 S., R. 3 E.	9-Mar-10	0930-1000	0	Sampled from the bridge to ~ 500 ft. upstream of bridge. Braided channel, thick mud/ silt substrate mixed with detritus.	Pat O'Neil, Andrew Henderson
BV-1	Unnamed tributary to Beaver Creek at Co. Hwy. 24	St. Clair	33.8407	86.1178	sec. 4, T. 14 S., R. 5 E.	9-Mar-10	1120-1210	0	Walked upstream and sampled overflow pools and smaller tributaries flowing into Beaver Creek. Habitat didn't look bad but tributaries were not flowing since it had been over a week of the last rain event and water appeared to be tannic/anaerobic.	Cal Johnson, Tom Shepard
BV-2	Unnamed tributary to Beaver Creek at Co. Hwy. 21	St. Clair	33.8349	86.1193	sec. 9, T. 14 S., R. 5 E.	9-Mar-10	0925-1025	0	Sampled an ephemeral stream close to the road but yielded no results. Then walked upstream of bridge and sampled more tributaries but still no results.	Cal Johnson, Tom Shepard
BV-3	Unnamed tributary to Beaver Creek behind Poplar Springs Church.	St. Clair	33.8156	86.2164	sec. 15, T. 14 S., R. 4 E.	2-Feb-10	1100-1115	0	Stream had a cobble/gravel substrate mixture, which is not the appropriate breeding habitat for this time of year.	Cal Johnson; Pat O'Neil, Tom Shepard
BV-4	Beaver Creek at Cash Pasture off U.S. Hwy. 411	St. Clair	33.7621	86.3113	sec. 3, T. 15 S., R. 3 E.	13-Jan-10	1350-1420	0	Sampled upstream of pasture crossing up to ~ 1,000 ft.	Brett Smith, Eric Spadgenske, Cal Johnson
BV-5	Unnamed tributary to Beaver Creek at Mashburn Road	St. Clair	33.7431	86.3318	sec. 9, T. 15 S., R. 3 E.	9-Mar-10	1315-1330	0	Sampled small tributary but the substrate was gravel/cobble mixture instead of clay/shale.	Cal Johnson, Tom Shepard
BV-6	Beaver Creek at St. Clair Co. Correctional Facility Road	St. Clair	33.7273	86.3576	sec. 17, T. 15 S., R. 3 E.	12-Nov-08	1450-1515	0	Sampled flooded woodland portion of Beaver Creek. Looked like great spawning habitat with open areas for breeding and leaf organic matter for cover.	Tom Shepard, Cal Johnson
BV-7	Beaver Creek at St. Clair Co. Correctional Facility Road	St. Clair	33.7211	86.3615	sec. 18, T. 15 S., R. 3 E.	2-Feb-10	0900-0945	0	Sampled from bridge upstream to coordinates 33.7240° North and 86.36200° West. Poor looking trispot habitat due to beaver dams.	Cal Johnson; Pat O'Neil, Tom Shepard
BC-1	Unnamed tributary to Permeter Creek at Gum Springs Church	St. Clair	33.8522	86.1793	sec. 36, T. 14 S., R. 4 E.	2-Feb-10	1250-1305	0	Good trispot habitat. Pictures were taken of site.	Cal Johnson; Pat O'Neil, Tom Shepard

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-2	Unnamed tributary to Permeter Creek at Co. Hwy. 33	St. Clair	33.8348	86.1983	sec. 11, T. 14 S., R. 4 E.	2-Feb-10	1140-1155	0	Sampled ~ 300 ft. downstream of bridge.	Cal Johnson; Pat O'Neil, Tom Shepard
BC-3	Unnamed tributary to Dry Creek	Etowah	33.9449	86.1018	sec. 34, T. 12 S., R. 5 E.	9-Mar-10	1325-1340	0	Worked downstream of bridge ~ 200 ft. Tributary was slow and murky. Substrate and flow were unsuitable.	Pat O'Neil, Andrew Henderson
BC-4	Tributary to Rook Creek at Friendship Rd.	St. Clair	33.9413	86.1431	sec. 32, T. 12 S., R. 5 E.	31-Jan-12	1615-1630	0		Cal Johnson, Brett Smith
BC-5	Tributary to Little Canoe Creek at Fann Rd.	St. Clair	33.9400	86.1735	sec. 36, T. 12 S., R. 4 E.	31-Jan-12	1415-1435	0		Cal Johnson, Brett Smith
BC-6	Little Canoe Creek (lower watershed) at Rocky Hollow Road	Etowah	33.9698	86.1783	sec. 24, T. 12 S., R. 4 E.	17-Dec-08	1420-1450	0	Significant flow, poor trispot habitat, substrate habitat is sand/gravel with high stream gradient.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske
BC-7	Unnamed tributary to Big Canoe Creek at Westervelt Property	St. Clair	33.9100	86.1674	sec. 18, T. 13 S., R. 5 E.	29-Feb-12	1200-1210	0		Cal Johnson, Brett Smith, Eric Spadgenske
BC-8	Unnamed tributary to Big Canoe Creek at Steele Exit	St. Clair	33.9308	86.1963	sec. 2, T. 13 S., R. 4 E.	9-Mar-10	1425-1450	0	Sampled from bridge downstream ~ 500 ft. Stream seemed to be to large.	Pat O'Neil, Andrew Henderson
BC-9	Unnamed tributary to Big Canoe Creek on unnumbered road south of Lake Rumac	St. Clair	33.8713	86.2508	sec. 29, T. 13 S., R. 4 E.	26-Jan-10	1210-1240	0	Poor habitat, heavy mud/leaf substrate.	Tom Shepard, Pat O'Neil, Cal Johnson
BC-10a	Unnamed tributary to Big Canoe Creek at I-59 Northbound Lane	St. Clair	33.8790	86.2660	sec 30, T. 13 S., R. 4 E.	9-Feb-10	1235-1300	0	Sampled from Interstate 59 crossing to 300 feet upstream.	Pat O'Neil, Andrew Henderson
BC-10b	Unnamed tributary to Big Canoe Creek at I-59 Northbound Lane	St. Clair	33.8769	86.2632	sec. 30, T. 13 S., R. 4 E.	7-Mar-12	1125-1145	0	Nice looking Trispot Darter habitat. Right size stream.	Cal Johnson, Brett Smith
BC-11	Unnamed tributary to Pinedale Lake	St. Clair	33.8392	86.3231	sec. 3, T. 14 S., R. 3 E.	7-Mar-12	1050-1105	0	Nice looking Trispot Darter habitat.	Cal Johnson, Brett Smith
BC-12	Big Canoe Creek at Co. Hwy. 36	St. Clair	33.8327	86.2835	sec. 12, T. 14 S., R. 3 E.	30-Oct-08	0840-1045	0	Sampled downstream of bridge ~ 600 feet.	Pat O'Neil, Jeff Powell, Marty Kodis, Cal Johnson, Brett Smith, Anne Wynn
BC-13a	Unnamed tributary on Farmers Private Road	St. Clair	33.8065	86.3126	sec. 22, T. 14 S., R. 3 E.	18-Jan-12	1220-1245	0		Cal Johnson, Tom Shepard

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-13b	Unnamed tributary on Farmers Private Road	St. Clair	33.8084	86.3132	sec. 22, T. 14 S., R. 3 E.	18-Jan-12	1325-1335	0		Cal Johnson, Tom Shepard
BC-14	South Fork of Dry Creek at Ray Wyatt Road	St. Clair	33.7845	86.3074	sec. 27, T. 14 S., R. 3 E.	2-Feb-10	1015-1045	0	Poor trispot habitat due to beaver dams which made the current slow to none.	Cal Johnson, Pat O'Neil, Tom Shepard
BC-15	Unnamed tributary to Big Canoe Creek at I-59 Northbound Lane	St. Clair	33.8126	86.3523	sec. 17, T. 14 S., R. 3 E.	29-Feb-12	1625-1630	0		Cal Johnson, Brett Smith
BC-16	Unnamed tributary to Big Canoe Creek at Ala. Hwy. 23 at Cool Springs	St. Clair	33.7967	86.3294	sec. 21, T. 14 S., R. 3 E.	4-Feb-10	1400-1410	0	Stream rocky and clear, not typical trispot habitat.	Tom Shepard, Cal Johnson
BC-17a	Unnamed tributary to Big Canoe Creek on Chris Donald property	St. Clair	33.7914	86.3621	sec. 30, T. 14 S., R. 3 E.	17-Mar-11	1045-1100	1	Captured one female with a SL measurement of 39mm in a spring run flowing into backwater.	Tom Shepard, Pat O'Neil
BC-17b	Unnamed tributary to Big Canoe Creek on Chris Donald property	St. Clair	33.7914	86.3621	sec. 30, T. 14 S., R. 3 E.	21-Mar-11	0940-1010	0	Heavy leaf packs around mouth of small tributary. Small gravel/silt above culvert.	Cal Johnson, Eric Spadgenske
BC-18a	Unnamed tributary to Big Canoe Creek backwater	St. Clair	33.7922	86.3625	sec. 30, T. 14 S., R. 3 E.	17-Mar-11	1105-1115	0	No fishes. Good habitat.	Tom Shepard, Pat O'Neil
BC-18b	Unnamed tributary-2 to Big Canoe Creek on Chris Donald property	St. Clair	33.7921	86.3624	sec. 30, T. 14 S., R. 3 E.	21-Mar-11	1020-1115	2	Captured 2 males with a SL measurement of 42mm and 45mm. Missed an additional Trispot Darter.	Cal Johnson, Eric Spadgenske
BC-19	Unnamed tributary to Big Canoe Creek at 3-man bridge on Chris Donald property	St. Clair	33.7935	86.3640	sec. 30, T. 14 S., R. 3 E.	17-Mar-11	1125-1135	0	Channel dammed in several spots by beavers. Followed upstream for 200 ft. then it opened into overflow pools.	Tom Shepard, Pat O'Neil
BC-20	Unnamed tributary-6 to Big Canoe Creek on Chris Donald property	St. Clair	33.797	86.3675	sec. 30, T. 14 S., R. 3 E.	21-Mar-11	1345-1410	0	Walked back downstream and sampled tributary on left descending bank. Not good spawning habitat-tributary opens up into a slough that is anaerobic and water is tannic.	
BC-21a	Overflow Pools to Big Canoe Creek at I-59	St. Clair	33.7969	86.3206	sec. 19, T. 14 S., R. 3 E.	9-Feb-10	1015-1100	0	Sampled several overflow pools and ditches near I-59 Big Canoe Creek site. Few to no fishes.	Pat O'Neil, Andrew Henderson

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-21b	Unnamed tributary-3 to Big Canoe Creek on Chris Donald property	St. Clair	33.7969	86.3705	sec. 19, T. 14 S., R. 3 E.	21-Mar-11	1130-1145	0	Appeared channelized for the first ~ 120 ft. Tributary was perched from Big Canoe Creek but flowing. Tributary went dry further upstream.	Cal Johnson, Eric Spadgenske
BC-22	Unnamed tributary-4 to Big Canoe Creek on Chris Donald property	St. Clair	33.7985	86.3705	sec. 19, T. 14 S., R. 3 E.	21-Mar-11	1200-1230	0		Cal Johnson, Eric Spadgenske
BC-23	Unnamed tributary to Big Canoe Creek at I-59 Northbound Lane	St. Clair	33.7990	86.3732	sec. 19, T. 14 S., R. 3 E.	7-Mar-12	1000-1015	0		Cal Johnson, Brett Smith
BC-24	Unnamed tributary-5 to Big Canoe Creek on Chris Donald property	St. Clair	33.8002	86.3796	sec. 24, T. 14 S., R. 3 E.	21-Mar-11	1240-1300	0	Walked upstream to try and find smaller tributaries above I-59 SE of railroad tracks but there was no breeding habitat available. Was not able to walk all of the tributary system out, but there could be some potential spawning habitat further upstream.	Cal Johnson, Eric Spadgenske
BC-25	Unnamed tributary to Big Canoe Creek at Impoundments (Gerald Tucker property).	St. Clair	33.8109	86.3808	sec. 13, T. 14 S., R. 2 E.	26-Jan-10	1000-1030	0	Sampled tributaries on Gerald Tucker's property, which revealed poor trispot habitat. Stream bank was entrenched.	Tom Shepard, Pat O'Neil, Cal Johnson
BC-26	Unnamed tributary-1 to Big Canoe Creek at APCO Canoe Creek Farms	St. Clair	33.7999	86.4265	sec. 22, T. 14 S., R. 2 E.	23-Feb-10	1040-1100	0		Casey Knight, Chad Fitch, Cliff Young
BC-27	Spring-fed outflow from trout tributary to Big Canoe Creek at APCO Canoe Creek Farms	St. Clair	33.7962	86.4338	sec. 21, T. 14 S., R. 2 E.	10-Feb-10	1127-1205	0	Substrate of rock, gravel with some sand, clay/silt. Shocked above and below trout pond. Not good trispot breeding habitat.	Steve Krotzer, Chad Fitch, Casey Knight, Jeff Baker
BC-28	Unnamed tributary-2 to Big Canoe Creek at APCO Canoe Creek Farms	St. Clair	33.7947	86.4410	sec. 21, T. 14 S., R. 2 E.	10-Feb-10	1321-1343	0	Substrate was gravel and sand with some cobble. Spring influenced, most likely unsuitable for trispots.	Chad Fitch, Jeff Baker, Casey Knight
BC-29	Unnamed tributary-3 to Big Canoe Creek at Apo. Canoe Creek Farms	St. Clair	33.8035	86.4306	sec. 21, T. 14 S., R. 2 E.	23-Feb-10	1120-1140	0		Casey Knight, Chad Fitch, Cliff Young
BC-30	Unnamed tributary-4 to Big Canoe Creek at APCO Canoe Creek Farms property	St. Clair	33.8031	86.4469	sec. 20, T. 14 S., R. 2 E.	10-Feb-10	1015-1030	0	Worked upstream from mouth ~ 120 ft. Very limited habitat. Stream appears to be too high in gradient to serve as breeding habitat. The only fish species seen was <i>C. oligolepis</i> and <i>C. carolinea</i> .	Steve Krotzer, Chad Fitch, Casey Knight, Jeff Baker
BC-31	Unnamed tributary to Little Canoe Creek	St. Clair	33.7859	86.3615	sec. 30, T. 14 S., R. 3 E.	17-Mar-11	0920-0930	1	Captured one male that had a SL measurement of 36mm.	Tom Shepard, Pat O'Neil

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-32	Little Canoe Creek ~ 1,900 ft. downstream of bridge at mouth of unnamed tributary-1	St. Clair	33.7848	86.3607	sec. 30, T. 14 S., R. 3 E.	17-Dec-08	0900-1200	1	One Trispot Darter (sex undetermined) taken on left bank at mouth of unnamed tributary-1 to Little Canoe Creek.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske, Dan Catchings, Rob Address
BC-33	Little Canoe Creek at mouth of Gin Branch	St. Clair	33.7804	86.3619	sec. 30, T. 14 S., R. 3 E.	17-Dec-08	0900-1200	1	1 male Trispot Darter taken on left bank at mouth of Gin Branch. High flow in Little Canoe Creek, backwater in Gin Branch.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske, Dan Catchings, Rob Address
BC-34a	Gin Branch ~ 250 ft. upstream of mouth	St. Clair	33.7810	86.3620	sec. 30, T. 14 S., R. 3 E.	17-Dec-08	0900-1200	2	Two Trispot Darters (sex undetermined) taken near muddy shoreline.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske, Dan Catchings, Rob Address
BC-34b	Gin Branch from mouth to ~ 300 ft. upstream of Beulah Circle Road East Loop	St. Clair	33.7810	86.3620	sec. 30, T. 14 S., R. 3 E.	28-Jan-09	0945-1400	3	3 female Trispot Darters taken in eroded plunge pool near bridge culvert.	Pat O'Neil, Tom Shepard, Cal Johnson
BC-34c	Gin Branch ~ 250 ft. upstream of mouth	St. Clair	33.7810	86.3620	sec. 30, T. 14 S., R. 3 E.	17-Dec-09	1250-1305	2	Captured one male and one female Trispot Darter.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske, Andrew Henderson
BC-34d	Gin Branch ~ 250 ft. upstream of mouth	St. Clair	33.7810	86.3620	sec. 30, T. 14 S., R. 3 E.	31-Jan-12	1025-1145	15	Captured 4 males that had a SL measurement of 46, 43, 45, 45 and 4 females that had a SL measurement of 46, 44, 44, 44. 7 Trispot Darters were missed but documented.	Cal Johnson, Brett Smith
BC-35a	Unnamed tributary-1 at road side pool	St. Clair	33.7834	86.3631	sec. 30, T. 14 S., R. 3 E.	19-Feb-09	0945-1400	10	7 female and 3 male Trispot Darters.	Pat O'Neil, Tom Shepard, Cal Johnson, Steve Rider, Andrew Henderson
BC-35b	Unnamed tributary-1 at road side pool	St. Clair	33.7834	86.3631	sec. 30, T. 14 S., R. 3 E.	4-Mar-09	1130-1200	13	7 male and 6 female Trispot Darters. Females were running eggs with light pressure. Most Trispot Darters taken about 300 ft. downstream of culvert.	Tom Shepard, Cal Johnson
BC-35c	Unnamed tributary-1 at road side pool	St. Clair	33.7834	86.3631	sec. 30, T. 14 S., R. 3 E.	1-Apr-09	0900-0930	0		Tom Shepard, Cal Johnson
BC-35d	Unnamed tributary-1 at road side pool	St. Clair	33.7834	86.3631	sec. 30, T. 14 S., R. 3 E.	17-Dec-09	1200-1240	32	Some of the male specimens that were captured exhibited some breeding coloration and some of the female specimens were gravid. Captured majority of specimens over a gravel bed which was ~ 0.5 ft. deep and they were all congregated over this portion of the stream. 7 were male and 25 individuals were female.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske, Andrew Henderson
BC-35e	Unnamed tributary-1 at road side pool	St. Clair	33.7834	86.3631	sec. 30, T. 14 S., R. 3 E.	26-Jan-10	0945-1400	21	6 male and 15 female Trispot Darters taken in roadside pools near Beulah Church road.	Pat O'Neil, Tom Shepard, Cal Johnson

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-36a	Gin Branch at Beulah Circle Road East Loop Road	St. Clair	33.7838	86.3631	sec. 30, T. 14 S., R. 3 E.	9-Mar-10	1355-1450	51	Captured 23 males and 28 females and 1 escaped. The majority of the females were not gravid and males were not exhibiting their bright colors. It seems that most of the individuals have spawned on this date at this station. The water temperature was 13°C.	Cal Johnson, Tom Shepard
BC-36b	Gin Branch at Beulah Circle Road East Loop Road	St. Clair	33.7838	86.3631	sec. 30, T. 14 S., R. 3 E.	16-Mar-10	0855-0920	2	Captured 2 females. 1 looked spent and the other showed some signs of being gravid-her papillae was still showing but her belly was not protruding outward.	Cal Johnson, Tom Shepard
BC-37a	Unnamed tributary-1 from Little Canoe Creek upstream to road side pool	St. Clair	33.7841	86.3623	sec. 30, T. 14 S., R. 3 E.	28-Jan-09	0945-1400	9	7 male and 2 female Trispot Darters taken from mouth of unnamed tributary upstream to road side pools.	Pat O'Neil, Tom Shepard, Cal Johnson
BC-37b	Unnamed tributary-1 from Little Canoe Creek upstream to road side pool	St. Clair	33.7841	86.3623	sec. 30, T. 14 S., R. 3 E.	19-Feb-09	0930-1015	0		Pat O'Neil, Tom Shepard, Cal Johnson, Steve Rider, Andrew Henderson
BC-37c	Unnamed tributary-1 from Little Canoe Creek upstream to road side pool	St. Clair	33.7841	86.3623	sec. 30, T. 14 S., R. 3 E.	6-Jan-11	0910-0950	13	Captured 9 males and their SL measurements are as follows (mm): 47, 37, 42, 44, 46, 36, 44, 34, 42. Captured 4 females and their SL measurements are as follows (mm): 45, 46, 48, and 52. Water temperature was 39°F. Sampled entire length of trib and clipped all caudle fins on specimens.	Andrew Henderson, Cal Johnson
BC-37d	Unnamed tributary-1 from Little Canoe Creek upstream to road side pool	St. Clair	33.7841	86.3623	sec. 30, T. 14 S., R. 3 E.	8-Jan-11	0915-0930	2	Shocked mostly around roadside pool due mostly to turbidity.	Andrew Henderson, Cal Johnson
BC-38a	Gin Branch from Beulah Circle Road East Loop to property line fence + unnamed tributary-1 from Little Canoe Creek upstream to road side pool	St. Clair	33.7852	86.3674	sec. 30, T. 14 S., R. 3 E.	12-Feb-09	0915-1135	54	17 males, 33 females, 4 sex undetermined Trispot Darters taken in two areas. B. Kuhajda photographed his specimens and took fin clips. Individual count was combined.	Pat O'Neil, Steve Krotzer, Jeff Baker, Casey Knight, Eric Spadgenske, Tom Shepard, Cal Johnson, Bernard Kuhajda, Brooke Fluker
BC-38b	Gin Branch from Beulah Circle Road East Loop to property line fence	St. Clair	33.7852	86.3674	sec. 30, T. 14 S., R. 3 E.	19-Feb-09	0915-1135	3	3 male Trispot Darters taken in deeper pools.	Pat O'Neil, Tom Shepard, Cal Johnson, Steve Rider, Andrew Henderson
BC-38c	Gin Branch from Beulah Circle Road East Loop to property line fence	St. Clair	33.7852	86.3674	sec. 30, T. 14 S., R. 3 E.	11-Dec-09	1020-1035	0	Water slightly turbid. It is too early for Trispot Darter to be found in this ephemeral stream.	Tom Shepard, Cal Johnson
BC-39a	Gin Branch from Beulah Circle Road West Loop upstream approximately 2,000 feet	St. Clair	33.7838	86.3728	sec. 30, T. 14 S., R. 3 E.	11-Feb-09	1330-1500	17	9 male and 8 female Trispot Darters taken intermittently in Gin Branch from Beulah Church Loop Road West upstream from bridge to about 2,000 feet upstream past farm.	Eric Spadgenske, Tom Shepard, Cal Johnson

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-39b	Gin Branch from Beulah Circle Road West Loop upstream approximately 2,000 feet	St. Clair	33.7838	86.3728	sec. 30, T. 14 S., R. 3 E.	19-Feb-09	1100-1145	2	1 male and 1 female Trispot Darter.	Pat O'Neil, Tom Shepard, Cal Johnson, Steve Rider, Andrew Henderson
BC-39c	Gin Branch from Beulah Circle Road West Loop upstream approximately 2,000 feet	St. Clair	33.7838	86.3728	sec. 30, T. 14 S., R. 3 E.	4-Mar-09	1240-1255	4	2 male and 2 female Trispot Darters. Females are gravid and running eggs with pressure.	Tom Shepard, Cal Johnson
BC-39d	Gin Branch from Beulah Circle Road West Loop upstream approximately 2,000 feet	St. Clair	33.7838	86.3728	sec. 30, T. 14 S., R. 3 E.	1-Apr-09	1000-1025	0	No fish, streamflow up from recent rains.	Tom Shepard, Cal Johnson
BC-39e	Gin Branch from Beulah Circle Road West Loop upstream approximately 2,000 feet	St. Clair	33.7838	86.3728	sec. 30, T. 14 S., R. 3 E.	26-Jan-10	1340-1430	5	Water Temperature was 7°C. Females were gravid. Captured 3 females and their SL measurements (mm) were 43, 33, 36. Captured 2 males with a SL measurement of 35 and 34.	Tom Shepard, Pat O'Neil, Cal Johnson
BC-39f	Gin Branch from Beulah Circle Road West Loop upstream approximately 2,000 feet	St. Clair	33.7838	86.3728	sec. 30, T. 14 S., R. 3 E.	6-Jan-11	1120-1200	5	Captured 5 males and their SL measurements were (mm): 48, 42, 41, 46, 47.	Andrew Henderson, Cal Johnson
BC-39g	Gin Branch from Beulah Circle Road West Loop upstream approximately 2,000 feet	St. Clair	33.7838	86.3728	sec. 30, T. 14 S., R. 3 E.	8-Feb-11	1000-1020	0		Casey Knight, Jeff Baker
BC-39h	Gin Branch from Beulah Circle Road West Loop upstream approximately 2,000 feet	St. Clair	33.7838	86.3728	sec. 30, T. 14 S., R. 3 E.	16-Feb-11	1100-1135	13	Females were gravid and males were brightly colored. Netted 12 and missed 1. Female measurements (mm) are: 54, 57, 55, 46, 52. Male measurements are: 53, 48, 43, 42, 52, 50, 43.	Casey Knight, Chad Fitch, Jeff Baker
BC-40a	Unnamed tributary to Gin Branch at I-59 Northbound Lane	St. Clair	33.7923	86.3830	sec. 25, T. 14 S., R. 2 E.	9-Feb-10	1000-1010	0	No fish, most flow appears to be from rains last night.	Pat O'Neil, Andrew Henderson
BC-40b	Unnamed tributary to Gin Branch at I-59 Northbound Lane	St. Clair	33.7894	86.3854	sec. 25, T. 14 S., R. 2 E.	29-Feb-12	1520-1545	3	Collected 3 Trispot Darters. 1 female had a SL measurement of 40mm. One male also had a SL measurement of 40mm and the other male had a SL measurement of 38mm.	Cal Johnson, Brett Smith, Eric Spadgenske
BC-41a	Little Canoe Creek at Beulah Circle Road	St. Clair	33.7801	86.3626	sec. 30, T. 14 S., R. 3 E.	30-Oct-08	1130-1330	3	2 male Trispot Darters taken downstream of bridge in bedrock/sand run and 1 female collected in cobble riffle ~ 150 ft. upstream of bridge.	Pat O'Neil, Jeff Powell, Marty Kodis, Cal Johnson, Brett Smith, Anne Wynn
BC-41b	Little Canoe Creek at Beulah Circle Road	St. Clair	33.7801	86.3626	sec. 30, T. 14 S., R. 3 E.	12-Nov-08	0845-1045	7	2 male and 5 female Trispot Darters; 2 were taken in downstream shoal, 5 were taken on edge of <i>Justicia</i> sand/small gravel shoal 800 feet upstream of bridge.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske
BC-41c	Little Canoe Creek at Beulah Circle Road	St. Clair	33.7801	86.3626	sec. 30, T. 14 S., R. 3 E.	17-Dec-08	0900-1200	3	3 Trispot Darters (sex undetermined) taken in cobble riffle downstream of bridge, high flow.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske, Dan Catchings, Rob Address

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-41d	Little Canoe Creek at Beulah Circle Road	St. Clair	33.7801	86.3626	sec. 30, T. 14 S., R. 3 E.	28-Jan-09	0945-1400	0	Worked from downstream riffle to upstream <i>Justicia</i> shoal.	Pat O'Neil, Tom Shepard, Cal Johnson
BC-41e	Little Canoe Creek at Beulah Circle Road	St. Clair	33.7801	86.3626	sec. 30, T. 14 S., R. 3 E.	5-Nov-09	0900-1045 & 1130-1150	6	2 females @ downstream culvert plunge pool of Gin Branch; 1 female was taken ~ 150 ft. upstream in Gin Branch from mouth; 1 male 20 yards upstream of Gin Branch's mouth in Little Canoe Creek. 1 male was in color @ Little Canoe Creek upstream of bridge @ <i>Justicia</i> and a female was taken in the flowing reach 1-2' deep over leaves.	Tom Shepard, Pat O'Neil, Cal Johnson
BC-41f	Little Canoe Creek at Beulah Circle Road	St. Clair	33.7801	86.3626	sec. 30, T. 14 S., R. 3 E.	1-Dec-09	830-1020	8	Worked upstream of bridge @ <i>Justicia</i> spot and did not find any trispots. Then sampled downstream of bridge in riffle habitat and did not find any in main channel of Little Canoe Creek. Afterwards, sampled breeding site and found 3 females, 2 males, 3 juveniles. All were found by themselves and did not exhibit any color nor did the females look gravid. Most were found in leaf packs.	Tom Shepard, Cal Johnson
BC-42a	Little Canoe Creek at mouth of Site #13 at APCO property	St. Clair	33.7802	86.3731	sec. 30, T. 14 S., R. 3 E.	6-Jan-10	1330-1445	0	Stream bed was unconsolidated gravel, no vegetation, and no good flowing tributaries.	Chad Fitch, Eric Spadgenske, Jeff Baker, Casey Knight
BC-42b	Unnamed tributary-2 near mouth at APCO property, Breeding Site #13	St. Clair	33.7802	86.3731	sec. 30, T. 14 S., R. 3 E.	18-Mar-10	1000-1100	50	Captured 28 males, 19 females, and 3 sexes that could not be determined. The majority of males were dull colored and 13 females were gravid. Water temperature was 11.6°C.	Steve Krotzer, Jeff Baker, Casey Knight
BC-42c	Unnamed tributary-2 near mouth at APCO property, Breeding Site #13	St. Clair	33.7802	86.3731	sec. 30, T. 14 S., R. 3 E.	30-Mar-10	1030-1300	44	Released 7 small male Trispot Darters downstream of culvert with slight breeding colors and 4 females that were gravid. Sampled upstream of culvert and released 7 small male trispots with slight color but 8 males were still in peak color. 5 gravid females were released along with 11 females that were spent. 2 were seen but not netted and sex was undetermined.	Casey Knight, Jeff Baker
BC-42d	Unnamed tributary-2 near mouth at APCO property, Breeding Site #13	St. Clair	33.7802	86.3731	sec. 30, T. 14 S., R. 3 E.	8-Feb-11	1000-1020	7	Captured 2 females with a total length of 55mm and 56 mm. Captured 1 male with a total length of 51mm. Missed 4 additional Trispot Darters.	Casey Knight, Jeff Baker
BC-42e	Unnamed tributary-2 near mouth at APCO property, Breeding Site #13	St. Clair	33.7802	86.3731	sec. 30, T. 14 S., R. 3 E.	16-Feb-11	1140-1200	18	Total of 10 individuals netted. Missed 8. All the females were gravid and males were brightly colored. Female total lengths (mm) 56, 55, 59, 46, 54, 55, 57. Male total lengths are 52, 61, 44. Water temperature was 6.6°C.	

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-43a	Unnamed tributary-2 to Little Canoe Creek at Breeding Site #13 at APCO property downstream of Road Crossing	St. Clair	33.7804	86.3743	sec. 30, T. 14 S., R. 3 E.	6-Jan-10	1220-1300	22	Collected 8 females, 12 males, and 2 that were not sexed. Trispot Darters were found in leaf packs on top of gravel/cobble substrate. All were collected generally in mid-channel with low flow and less than a foot of water. SL measurements of the females are as follows (mm): 41, 46, 37, 40, 41, 50, 40, 35. The SL measurements for the males are as follows (mm): 48, 38, 44, 32, 38, 35, 37, 40, 34, 35, 37 and 35. The 2 unidentified sexes measured 28 and 31.	Chad Fitch, Eric Spadgenske, Jeff Baker, Casey Knight
BC-43b	Unnamed tributary-2 to Little Canoe Creek at Breeding Site #13 at APCO property downstream of Road Crossing	St. Clair	33.7804	86.3743	sec. 30, T. 14 S., R. 3 E.	13-Jan-10	1000-1112	13	13 Trispot Darters were collected. The 4 females SL measurements are as follows (mm): 45, 45, 45, and 50. The 8 males SL measurements are as follows: 41, 42, 44, 43, 43, 46, 46, 45. 1 trispot was not sexed but its SL measurement was 43. A female was slightly swollen with extended genital papilla showing. 10 additional individuals were seen but not collected.	Steve Krotzer, Chad Fitch, Casey Knight
BC-43c	Unnamed tributary-2 to Little Canoe Creek at Breeding Site #13 at APCO property downstream of Road Crossing	St. Clair	33.7804	86.3743	sec. 30, T. 14 S., R. 3 E.	3-Feb-10	1010-1105	21	21 Trispot Darters were collected. The females SL measurements are as follows(mm): 42, 50, 40, 40, 35, 39, 34, and 35. The males SL measurements are as follows: 37, 36, 44, 36, 37, 33, 35, 38, 35, 36, 32, 37, 33	Steve Krotzer, Casey Knight
BC-43d	Unnamed tributary-2 to Little Canoe Creek at Breeding Site #13 at APCO property downstream of Road Crossing	St. Clair	33.7804	86.3743	sec. 30, T. 14 S., R. 3 E.	17-Feb-10	1000-1130	49	Sampled nearly the entire length of the stream so we could estimate the total number of Trispot Darters using this breeding habitat, and to estimate the sex ratio. No lengths were recorded. Collected 24 females that were mostly gravid and 22 male trispots. Half of the male trispots were exhibiting breeding colors. 3 of the darters collected could not be sexed.	Casey Knight, Chad Fitch, Justin Mitchell
BC-43e	Unnamed tributary-2 to Little Canoe Creek at Breeding Site #13 at APCO. property downstream of Road Crossing	St. Clair	33.7804	86.3743	sec. 30, T. 14 S., R. 3 E.	8-Feb-11	1300-1325	98	Water was turbid do to previous days rain. 75 of the total 81 were collected below a series of descending root wads with sediment deposit. Captured 49 males, 28 females, and 4 sex undetermined. Failed to net 17. Males (SL-mm):49, 48, 45, 48, 38, 45, 43, 51, 42, 47, 47, 54, 52, 49, 44, 47, 47, 42, 48, 45, 42, 48, 40, 46, 35, 55, 46, 44, 43, 45, 46, 47, 43, 41, 42, 44, 43, 40, 54, 45, 45, 47, 43, 47, 43, 46, 44, 46, 54. Females:40, 43, 47, 46, 41, 55, 55, 40, 50, 47, 43, 50, 43, 50, 43, 45, 51, 50, 60, 47, 53, 46, 50, 44, 44, 40, 49, 41.	Casey Knight, Jeff Baker

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-43f	Unnamed tributary-2 to Little Canoe Creek at Breeding Site #13 at APCO. property downstream of Road Crossing	St. Clair	33.7804	86.3743	sec. 30, T. 14 S., R. 3 E.	16-Feb-11	1100-1115	85	Most females gravid and males brightly colored. Total of 63 and missed 22 for a total of 85 Trispot Darters. Female measurements are (mm): 47, 48, 50, 61, 50, 45, 54, 55, 49, 40, 48, 39, 53, 42, 47, 44, 45, 50, 45, 47, 48. Male measurements are: 49, 57, 46, 50, 50, 48, 47, 48, 51, 51, 38, 45, 47, 45, 46, 43, 45, 44, 40, 44, 53, 45, 48, 40, 43, 49, 42, 46, 44, 45, 46, 40, 38, 43, 39, 41, 50, 39, 44, 40. 2 could not be sexed and their total lengths were 38 and 43	Casey Knight, Jeff Baker, Chad Fitch
BC-44a	Unnamed tributary-2 from mouth to ~ 200 ft. upstream of dirt road	St. Clair	33.7806	86.3778	sec. 30, T. 14 S., R. 3 E.	12-Feb-09	1330-1445	53	23 male and 30 female Trispot Darters taken in small tributary, gravel/sand/detritus mix. The highest density of Trispot Darters observed this season.	Steve Krotzer, Jeff Baker, Casey Knight
BC-44b	Unnamed tributary-2 from mouth to ~ 200 ft. upstream of dirt road	St. Clair	33.7806	86.3778	sec. 30, T. 14 S., R. 3 E.	4-Mar-09	1315-1330	14	8 female and 6 male Trispot Darters, still in breeding condition.	Tom Shepard, Cal Johnson
BC-44c	Unnamed tributary-2 from mouth to ~ 200 ft. upstream of dirt road	St. Clair	33.7806	86.3778	sec. 30, T. 14 S., R. 3 E.	1-Apr-09	1035-1100	1	1 male Trispot Darter. Very little color and appeared to be spent.	Tom Shepard, Cal Johnson
BC-45	Unnamed tributary to Little Canoe Creek at Riley Farms on APCO property	St. Clair	33.7752	86.3895	sec. 36, T. 14 S., R. 2 E.	27-Jan-10	1010-1100	0		Steve Krotzer, Chad Fitch, Jeff Baker
BC-46a	Unnamed tributary at I-59 at APCO property	St. Clair	33.7823	86.4072	sec. 26, T. 14 S., R. 2 E.	9-Feb-10	0910-0945	0	Stream had a high gradient with an increase of flow due to overnight rains. Habitat looked good for Trispot Darters.	Pat O'Neil, Andrew Henderson
BC-46b	Unnamed tributary to Little Canoe Creek at I-59 Northbound Lane	St. Clair	33.7819	86.4052	sec. 26, T. 14 S., R. 2 E.	29-Feb-12	0905-1000	6	Collected 6 Trispot Darters. 5 were female and one was a male. Collected the male in the median of Interstate 59.	Cal Johnson, Brett Smith, Eric Spadgenske
BC-47	Unnamed tributary-3 to Little Canoe Creek	St. Clair	33.7668	86.3834	sec. 36, T. 14 S., R. 2 E.	12-Feb-09	1300-1400	0	Sampled from APCO dirt road upstream ~ 2,900 ft. Clear, rocky, sandy stream, poor Trispot Darter habitat.	Pat O'Neil, Tom Shepard, Cal Johnson
BC-48	Unnamed tributary to Little Canoe Creek at Riley Farms	St. Clair	33.7696	86.3989	sec. 35, T. 14 S., R. 2 E.	20-Jan-10	1100-1150	0		Steve Krotzer, Jeff Baker, Casey Knight
BC-49	Unnamed tributary ~ 1,200 ft. north of St. Clair Springs	St. Clair	33.7682	86.4038	sec. 35, T. 14 S., R. 2 E.	13-Jan-10	1315-1345	1	Discovered one female Trispot Darter that was dead in a shallow area with low flow and gravel substrate. Appeared to have been dead for at least 1 day. Kept for a voucher specimen. The SL measurement was 39mm. Water temperature was 7° C.	Steve Krotzer, Chad Fitch, Casey Knight

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-50	Spring run originating at St.Clair Springs Community Ala. Hwy. 23	St. Clair	33.7639	86.4066	sec. 35, T. 14 S., R. 2 E.	11-Feb-09	0900-1200	0	Sampled from tributary near APCO field to springs at St.Clair Springs community. Beaver ponds at the lower reach, spring habitat near Hwy. 24. No Trispot Darters collected.	Tom Shepard, Cal Johnson, Eric Spadgenske
BC-51	Unnamed tributary on APCO property at Welch Drive	St. Clair	33.7731	86.4216	sec. 34, T. 14 S., R. 2 E.	23-Feb-10	1315-1350	0	Good habitat but could be too far away from main channel of Little Canoe Creek.	Pat O'Neil, Tom Shepard
BC-52	Unnamed tributary to Little Canoe Creek at Alabama Hwy. 23	St. Clair	33.7745	86.4202	sec. 34, T. 14 S., R. 2 E.	2-Mar-11	1005-1045	0	Walked downstream and sampled to coordinates 33.7726°N 86.4224°W	Tom Shepard, Cal Johnson
BC-53	Unnamed tributary to Little Canoe Creek at Ala. Hwy. 23 near I-59	St. Clair	33.7745	86.4248	sec. 34, T. 14 S., R. 2 E.	4-Mar-09	1430-1440	0	Rocky and clear stream, not Trispot Darter habitat.	Tom Shepard, Cal Johnson
BC-54	Unnamed tributary behind Wal-Mart at I-59 Exit 156	St. Clair	33.7775	86.4352	sec. 33, T. 14 S., R. 2 E.	9-Feb-10	0815-0840	0	High gradient stream that had a scoured down cut channel with some gravel. Overnight rains raised creek up to 0.5 ft. above normal flow.	Pat O'Neil, Andrew Henderson
BC-55	Unnamed tributary to Little Canoe Creek originating at Red Hill Church	St. Clair	33.7762	86.4112	sec. 35, T. 14 S., R. 2 E.	11-Feb-09	0900-1200	0	Sampled from APCO field upstream for about 4,000 ft. to near I-59. Acceptable habitat, may have sampled too early in the year for the Trispot Darters to have moved upstream this far.	Pat O'Neil, Steve Krotzer, Jeff Baker, Chad Fitch
BC-56	Little Canoe Creek at Beauchamp property ~ 2,100 ft. downstream of Ala. Hwy. 23 crossing	St. Clair	33.7719	86.3725	sec. 31, T. 14 S., R. 3 E.	4-Dec-08	1330-1600	3	1 male and 2 female Trispot Darters taken in riffle area.	Eric Spadgenske, Jeff Powell, Bernard Kuhajda, Brooke Fluker
BC-57	Unnamed spring tributary to Little Canoe Creek	St. Clair	33.7629	86.3786	sec. 1, T. 15 S., R. 2 E.	24-Feb-11	1100-1130	7	Sampled spring run from Little Canoe upstream to ~ 500 ft. Captured 2 male Trispot Darters that had a SL measurement of 40mm and 37mm. Captured 5 females that had a SL measurement of 45mm, 38mm, 43mm, 38mm, and one female was not measured. The 45mm Darter was running eggs.	Pat O'Neil, Eric Spadgenske
BC-58	Unnamed tributary to Little Canoe Creek on Pierce property	St. Clair	33.7578	86.3787	sec. 1, T. 15 S., R. 2 E.	24-Feb-11	1150-1210	0		Pat O'Neil, Eric Spadgenske
BC-59	Unnamed tributary to Little Canoe Creek upstream of Alligator Rock	St. Clair	33.7550	86.3825	sec. 1, T. 15 S., R. 2 E.	8-Mar-11	1435-1450	5	Two tributaries formed and started sample on the tributary that was to the right of the confluence. Habitat was not what we were looking for, so we suspended our effort and sampled on the other tributary and found 5 Trispot Darters. Captured 3 males that had a SL measurement of 41mm, 42 mm, and 47 mm. The 47 mm male was in peak. Captured 2 gravid females that had a SL measurement of 46mm and 39mm.	Pat O'Neil, Eric Spadgenske

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-60	Unnamed tributary to Little Canoe Creek north of St. Clair Correctional Facility and about 0.5 mi. south of Ala. Hwy. 23	St. Clair	33.7571	86.3899	sec. 1, T. 15 S., R. 2 E.	4-Mar-09	1025-1035	0	Small clay-bottomed tributary, no Trispot Darters.	Tom Shepard, Cal Johnson
BC-61a	Unnamed tributary to Little Canoe Creek at St.Clair Co. Correctional Facility	St. Clair	33.7479	86.3888	sec. 12, T. 15 S., R. 2 E.	12-Feb-09	1215-1300	0	Sampled downstream ~ 1,500 ft. beginning at park area. Clear, rocky, sandy stream not good Trispot Darter habitat.	Pat O'Neil, Tom Shepard, Cal Johnson, Steve Rider, Andrew Henderson
BC-61b	Unnamed tributary to Little Canoe Creek at St.Clair Co. Correctional Facility	St. Clair	33.7479	86.3888	sec. 12, T. 15 S., R. 2 E.	19-Feb-09	1215-1300	0	Sampled spring tributary about 400 ft. downstream of county road. Spring-like habitat, no Trispot Darters.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske
BC-62	Unnamed intermittent ditch on Pierce property	St. Clair	33.7597	86.3754	sec. 6, T. 15 S., R. 3 E.	24-Feb-11	1250-1310	5	Captured 3 females that had a SL measurement of 42mm, 38mm, and 44mm. The 42mm Darter and the 44mm Darter were ripe and running eggs. Captured 2 males that both measured 47mm and they were displaying breeding colors.	Pat O'Neil, Eric Spadgenske
BC-63	Unnamed tributary-1 to Little Canoe Creek at Pierce property hayfield off of Evergreen Road	St. Clair	33.7607	86.3689	sec. 6, T. 15 S., R. 3 E.	8-Mar-11	1045-1220	0		Tom Shepard, Cal Johnson, Stuart McGregor, Eric Spadgenske
BC-64	Unnamed tributary-2 to Little Canoe Creek at Pierce property hayfield off of Evergreen Road	St. Clair	33.7576	86.36702	sec. 6, T. 15 S., R. 3 E.	8-Mar-11	1045-1220	4	Walked upstream and found another small tributary where we captured 3 males that had a SL measurement of 34mm, 34mm, and 40mm. Captured 1 female that had a SL measurement of 44mm.	Tom Shepard, Cal Johnson, Stuart McGregor, Eric Spadgenske
BC-65	Unnamed tributary-3 to Little Canoe Creek at Pierce property hayfield off of Evergreen Road	St. Clair	33.7549	86.3660	sec. 6, T. 15 S., R. 3 E.	8-Mar-11	1045-1220	2	Walked further upstream and sampled another tributary and captured a male that had SL measurement of 38 mm and a female that had a SL measurement of 40mm.	Tom Shepard, Cal Johnson, Stuart McGregor, Eric Spadgenske
BC-66	Unnamed tributary-4 to Little Canoe Creek at Pierce property hayfield off of Evergreen Road	St. Clair	33.7521	86.3652	sec. 6, T. 15 S., R. 3 E.	8-Mar-11	1045-1220	3	Continued to walk further downstream and found another tributary where we found 3 more female Trispot Darters. Their SL measurements are 40mm, 37mm, and 38mm.	Tom Shepard, Cal Johnson, Stuart McGregor, Eric Spadgenske
BC-67	Unnamed tributary to Little Canoe Creek (Large Fork) Top of Hancock property	St. Clair	33.7497	86.3649	sec.7, T. 15 S., R. 3 E.	8-Feb-10	1245-1255	0	Habitat was described as extensive cobble and clean sand with the stream having a high gradient.	Pat O'Neil, Andrew Henderson, Eric Spadgenske
BC-68a	Unnamed tributary to Little Canoe Creek at Evergreen Road	St. Clair	33.7567	86.3541	sec. 5, T. 15 S., R. 3 E.	11-Dec-09	1135-1215	0	Sampled ~ 500 ft downstream of road crossing and ~ 600 ft upstream of road crossing.	Tom Shepard, Cal Johnson
BC-68b	Unnamed tributary to Little Canoe Creek at Evergreen Road	St. Clair	33.7567	86.3541	sec. 5, T. 15 S., R. 3 E.	8-Feb-11	1000-1015	0	Not any Trispot Darter breeding habitat found in stream-rocky cobble substrate.	Tom Shepard, Cal Johnson

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-69	Unnamed tributary to Little Canoe Creek downstream of ATV bridge (3)	St. Clair	33.7488	86.3687	sec. 7, T. 15 S., R. 3 E.	8-Feb-10	1200-1230	13	Captured 13 Trispot Darters in wooded, flowing tributary. Habitat was described as slow-sandy pools with snags and small gravel riffles. Males SL are as follows (mm): 35, 39, 33, and 36. Females SL are as follows (mm): 43, 33, 43, 40, 32, 36, 36, 43, and 33.	Pat O'Neil, Andrew Henderson, Eric Spadgnenske
BC-70	Unnamed tributary to Little Canoe downstream of ATV bridge (2)	St. Clair	33.7424	86.3724	sec. 7, T. 15 S., R. 3 E.	8-Feb-10	1120-1135	3	Captured 3 Trispot Darters in a wooded tributary that had more gravel than earlier. Habitat was more associated with root masses and pool habitat. 1 male had a SL measurement of 33mm and a female had a SL measurement of 29 and 1 male was not netted.	Pat O'Neil, Andrew Henderson, Eric Spadgnenske
BC-71a	Unnamed tributary to Little Canoe downstream of ATV bridge (1)	St. Clair	33.7416	86.3733	sec. 7, T. 15 S., R. 3 E.	8-Feb-10	1000-1030	20	Collected 20 trispots (9 male and 9 female) in a wooded, higher gradient than normal channel. SL of male are as follows (mm): 38, 39, 36, 33, 34, 35, 40, 49, 44. The SL of female are as follows (mm): 36, 39, 40, 35, 32, 39, 29, 38, 46. Missed 2 males that were not measured.	Pat O'Neil, Andrew Henderson, Eric Spadgnenske
BC-71b	Little Canoe Creek upstream of ATV bridge	St. Clair	33.7395	86.3740	sec. 7, T. 15 S., R. 3 E.	8-Feb-11	1120-1200	3	Collected 3 Trispot Darters in new area of Little Canoe Creek. Captured 2 females, one that had a SL measurement of 37mm and 34mm and one male with a SL measurement of 35mm. All were captured in a small ephemeral stream on right descending bank just upstream of an ATV bridge.	Tom Shepard, Cal Johnson
BC-72a	Little Canoe Creek overflow pools at St. Clair Co. Correctional Road	St. Clair	33.7403	86.3740	sec. 12, T. 15 S., R. 2 E.	19-Feb-09	1330-1400	1	1 male Trispot Darter found in overflow pool	Pat O'Neil, Tom Shepard, Cal Johnson, Steve Rider, Andrew Henderson
BC-72b	Little Canoe Creek overflow pools at St. Clair Co. Correctional Road	St. Clair	33.7403	86.3740	sec. 12, T. 15 S., R. 2 E.	4-Mar-09	0920-1005	3	1 male and 2 female Trispot Darters. Females were gravid and the male was in peak color. Captured in small off-channel pool area.	Tom Shepard, Cal Johnson
BC-72c	Little Canoe Creek overflow pools at St. Clair Co. Correctional Road	St. Clair	33.7403	86.3740	sec. 12, T. 15 S., R. 2 E.	1-Apr-09	1230-1250	0	No Trispot Darters	Tom Shepard, Cal Johnson
BC-72d	Little Canoe Creek overflow pools at St. Clair Co. Correctional Road	St. Clair	33.7403	86.3740	sec. 12, T. 15 S., R. 2 E.	2-Dec-09	1200-1215	0	Sampled breeding habitat upstream of bridge @ overflow pool. Wanted to see if any darters had moved upstream but didn't find any. Conditions look favorable with high water and water out of bank.	Tom Shepard, Cal Johnson
BC-72e	Little Canoe Creek at St. Clair Co. Correctional Road	St. Clair	33.7403	86.3740	sec. 7, T. 15 S., R. 3 E.	13-Jan-10	1045-1145	0		Brett Smith, Cal Johnson

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-72f	Little Canoe Creek overflow pools at St. Clair Co. Correctional Road	St. Clair	33.7403	86.3740	sec. 12, T. 15 S., R. 2 E.	6-Jan-11	1245-1340	0	Started sample at bridge crossing but habitat had been modified due to logging; overflow pool was still there. Walked downstream of Little Canoe Creek (LCC) and sampled side channels; some were directly connected to LCC but some were not at this time in the sample season.	Andrew Henderson, Cal Johnson
BC-72g	Little Canoe Creek overflow pools at St. Clair Co. Correctional Road	St. Clair	33.7403	86.374	sec. 12, T. 15 S., R. 2 E.	18-Jan-12	1045-1110	0		Cal Johnson, Tom Shepard
BC-73	Unnamed tributary to Little Canoe Creek on right bank downstream of St. Clair Correctional Road	St. Clair	33.7372	86.3766	sec. 7, T. 15 S., R. 3 E.	2-Feb-10	1500-1545	5	Released 5 Trispot Darters consisting of 2 males and 3 females. SL(mm) of the males are 34 and 32. The SL of the females are 33, 36, and 36. All were exhibiting secondary sexual characteristics.	Cal Johnson; Pat O'Neil, Tom Shepard
BC-74a	Little Canoe Creek at shoal 500 ft. downstream of St. Clair Co. Correctional Road	St. Clair	33.7373	86.3777	sec. 12, T. 15 S., R. 2 E.	5-Nov-09	1230-1515	3	Sampled from downstream of old bridge to 33.7410° N 86.3747° W. Captured 1 large male and 1 large female in small <i>Justicia</i> shoal downstream of old bridge. 1 small female (possibly 2009 hatchling) captured in deep flowing run near mouth of prison breeding side channel ~ 100 ft. upstream of mouth.	Tom Shepard, Cal Johnson, Pat O'Neil
BC-74b	Little Canoe Creek at shoal 500 ft. downstream of St. Clair Co. Correctional Road	St. Clair	33.7373	86.3777	sec. 1, T. 15 S., R. 2 E.	17-Dec-09	1340-1445	3	Captured three female trispots in shoal hanging around some dead <i>Justicia</i> stems.	Pat O'Neil, Eric Spadgenske, Andrew Henderson, Tom Shepard, Cal Johnson
BC-75	Little Canoe Creek at St. Clair Co. Correctional Road	St. Clair	33.7367	86.3799	sec. 12, T. 15 S., R. 2 E.	12-Nov-08	1330-1400	0	Worked upstream ~ 2,000 ft. Majority of stream was pool habitat. No Trispot Darters.	Pat O'Neil, Tom Shepard, Cal Johnson, Eric Spadgenske
BC-76	Unnamed tributary to Little Canoe Creek (Wayne Keith property)	St. Clair	33.7345	86.3846	sec. 13, T. 15 S., R. 2 E.	13-Jan-10	1245-1315	2	Captured a male and female in close proximity to one another. They were not in the mid channel reaches but next to the bank hiding in detritus.	Brett Smith, Eric Spadgenske, Cal Johnson
BC-77	Headwaters of unnamed tributary to Little Canoe Creek (Wayne Keith property)	St. Clair	33.7367	86.3936	sec. 12, T. 15 S., R. 2 E.	8-Feb-10	0830-0925	2	Caught 1 female that had a SL measurement of 36mm and 1 male Trispot Darter that measured 41mm. Both were collected in narrow, shallow headwater tributary that had sandy substrate and snags.	Pat O'Neil, Andrew Henderson, Eric Spadgenske
BC-78	Unnamed tributary to Little Canoe Creek near Wayne Smith property	St. Clair	33.7315	86.3967	sec. 14, T. 15 S., R. 2 E.	23-Feb-10	0930-0950	9	Collected 9 trispots. 4 were males and their SL measurements were (mm): 45, 33, 38, 31. 5 were females and their SL measurements were (mm): 39, 49, 37, 36, 36. The 36mm Trispot Darter was running eggs.	Pat O'Neil, Tom Shepard

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BC-79	Roadside ditch tributary to Little Canoe Creek at Alabama Hwy. 174	St. Clair	33.7290	86.4090	sec. 14, T. 15 S., R. 2 E.	10-Feb-11	1030-1050	0		Stuart McGregor, Brett Smith
BC-80	Dry Creek at Little Canoe Creek	St. Clair	33.7340	86.4133	sec. 15, T. 15 S., R. 2 E.	23-Feb-10	1140-1155	0	Heavy sand bed load, high gradient stream.	Pat O'Neil, Tom Shepard
BC-81	Overflow Pool to Little Canoe Creek at McLaughlin property	St. Clair	33.7534	86.4436	sec. 4, T. 15 S., R. 2 E.	8-Feb-10	1535-1550	0	Sampled small backwater off of Little Canoe Creek.	Pat O'Neil, Andrew Henderson, Eric Spadgnenske
BC-82	Unnamed tributary to Little Canoe Creek west of McLaughlin property	St. Clair	33.7562	86.4449	sec. 4, T. 15 S., R. 2 E.	8-Feb-10	1505-1525	0	Sampled a small tributary west of Mr. McLaughlin property that had a high gradient. Not good habitat.	Pat O'Neil, Andrew Henderson, Eric Spadgnenske
BC-83	Springville spring run at downtown Springville	St. Clair	33.7740	86.4727	sec. 31, T. 14 S., R. 2 E.	9-Mar-10	1545-1605	0	Sampled from Hwy. 11 downstream ~ 200 ft.	Pat O'Neil, Andrew Henderson
BC-84	Cole Spring Branch at Cole property near Springville	St. Clair	33.7795	86.4966	sec. 25/36, T. 14 S., R. 1 E.	10-Feb-11	0940-1015	0		Stuart McGregor, Brett Smith
BG-1	Unnamed tributary to Big Cove Creek on Sinert Road near U.S. Hwy. 278 at Hokes Bluff	Etowah	33.9801	85.8703	sec. 23, T. 12 S., R. 7 E.	15-Mar-11	0940-0945	0	Tributary was flowing above average due to heavy rains the night before. Had to suspend effort due to turbidity.	Cal Johnson, Stuart McGregor
BG-2	Big Cove Creek and spring at Ford Road	St. Clair	33.9737	85.8644	sec. 23, T. 12 S., R. 7 E.	9-Feb-10	1530-1555	0	Sampled spring area primarily. Stream high from rains last night.	Pat O'Neil, Andrew Henderson
TT-1	Unnamed tributary to Turkeytown Creek at Appalachian Road	Etowah	34.0870	85.8857	sec. 10, T. 11 S., R. 7 E.	10-Feb-11	1000-1005	0	Not good breeding habitat for Trispot Darters. No fish.	Tom Shepard, Cal Johnson
UT-1	Direct tributary to Coosa River at Coates Bend Road	Etowah	34.0719	85.8822	sec. 15, T. 11 S., R. 7 E.	10-Feb-11	1055-1105	0	Not good breeding habitat for Trispot Darters.	Tom Shepard, Cal Johnson
UT-2	Direct tributary to Coosa River at Pulltight Road.	Etowah	34.0820	85.8690	sec. 14, T. 11 S., R. 7 E.	10-Feb-11	1025-1035	0	Sampled to road crossing. No fish.	Tom Shepard, Cal Johnson
UT-3	Direct unnamed tributary to Coosa River at intersection of Co. Road 71 and Pearson Road	Etowah	34.0285	85.8694	sec. 35, T. 11 S., R. 7 E.	14-Mar-11	1545-1600	0		Cal Johnson, Stuart McGregor

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
LD-1	Little Dry Creek at Bachelors Chapel Road	Etowah	34.0178	85.8579	sec. 2, T. 12 S., R. 7 E.	10-Feb-11	1155-1230	0	Sampled breeding tributaries off of the main channel of Little Dry Creek. Great looking breeding habitat.	Tom Shepard, Cal Johnson
LD-1b	Little Dry Creek at Bachelors Chapel Road	Etowah	34.0178	85.8579	sec. 2, T. 12 S., R. 7 E.	1-Feb-12	0915-1015	0		Cal Johnson, Brett Smith
DR-1a	Dry Creek at Beard Road	Etowah	34.0109	85.8179	sec. 8, T. 12 S., R. 8 E.	8-Feb-10	1600-1625	0	Sampled ephemeral streams flowing out of Dry Creek-nice habitat but streams were not flowing.	Cal Johnson, Tom Shepard, Brett Smith.
DR-1b	Dry Creek at Beard Road	Etowah	34.0109	85.8179	sec. 8, T. 12 S., R. 8 E.	23-Feb-11	1525-1535	0		Tom Shepard, Cal Johnson
DR-2	Dry Creek at Reaves Road	Etowah	33.9971	85.8064	sec. 9, T. 12 S., R. 8 E.	8-Feb-10	1435-1450	0	Poor trispot habitat; too much flow.	Cal Johnson, Tom Shepard, Brett Smith, Brooke Fluker
DR-3	Unnamed tributary to Dry Creek on Mosley Road	Etowah	33.9973	85.7864	sec. 10/15, T. 12 S. R. 8 E.	9-Feb-11	1235-1250	0		Stuart McGregor, Brett Smith
DR-4	Unnamed tributary to Dry Creek at Young's Chapel Road	Etowah	33.9890	85.78242	sec. 15, T. 12 S., R. 8 E.	24-Feb-11	1235-1245	0		Tom Shepard, Cal Johnson
DR-5a	Unnamed tributary to Dry Creek at Young's Chapel Road	Etowah	34.0054	85.7798	sec. 10, T. 12 S., R. 8 E.	24-Feb-10	1410-1425	0	Habitat looked good. Sampled - 1155 ft. downstream of road crossing.	Cal Johnson, Brett Smith
DR-5b	Unnamed tributary to Dry Creek at Young's Chapel Road	Etowah	34.0054	85.7798	sec. 10, T. 12 S., R. 8 E.	16-Mar-10	1600-1615	0	Good habitat. Need to sample again.	Cal Johnson, Tom Shepard
DR-5c	Unnamed tributary to Dry Creek at Young's Chapel Road	Etowah	34.0050	85.7797	sec. 10, T. 12 S., R. 8 E.	1-Apr-10	1315-1355	0		Cal Johnson, Tom Shepard
DR-5d	Unnamed tributary to Dry Creek at Young's Chapel Road	Etowah	34.0054	85.7798	sec. 2, T. 12 S., R. 8 E.	9-Feb-11	1200-1220	0		Stuart McGregor, Brett Smith
DR-5e	Unnamed tributary to Dry Creek at Young's Chapel Road	Etowah	34.0054	85.7798	sec. 10, T. 12 S., R. 8 E.	24-Feb-11	1210-1220	0		Cal Johnson, Tom Shepard

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
DR-6	Unnamed tributary to Dry Creek at Tomcat Road	Etowah	34.0023	85.7708	sec. 10, T. 12 S., R. 8 E.	14-Mar-11	1425-1450	0		Cal Johnson, Stuart McGregor
CR-1	Unnamed tributary to Coosa River at Tomcat Road	Etowah	34.0483	85.8064	sec. 29, T. 11 S., R. 8 E.	8-Feb-10	1530-1540	0	Poor trispot habitat.	Cal Johnson, Tom Shepard, Brett Smith, Brooke Fluker
BP-1a	Tributary to Ballplay Creek at Kershaw Road	Etowah	34.1063	85.8116	sec. 5, T. 11 S., R. 8 E.	9-Feb-11	1320-1330	0		Stuart McGregor, Brett Smith
BP-1b	Tributary to Ballplay Creek at Kershaw Quarters Road	Etowah	34.1118	85.8135	sec. 4, T. 11 S., R. 8 E.	7-Feb-12	1015-1050	0	Sampled multiple tributaries to Ballplay Creek downstream of Kershaw Quarters Road on Hardway hunting club property.	Cal Johnson, Tom Shepard
BP-1c	Tributary to Ballplay Creek at Kershaw Quarters Road	Etowah	34.1011	85.8130	sec. 5, T. 11 S., R. 8 E.	28-Feb-12	1340-1420	0		Cal Johnson, Brett Smith
BP-2a	Tributary to Ballplay Creek at Gowens Road	Etowah	34.0849	85.8024	sec. 9/16, T. 11 S., R. 8 E.	9-Feb-11	1412-1425	0		Stuart McGregor, Brett Smith
BP-2b	Unnamed tributary to Ballplay Creek at Gowens Road	Cherokee	34.0887	85.8015	sec. 9, T. 11 S., R. 8 E.	6-Feb-12	1610-1620	0		Cal Johnson, Tom Shepard
BP-2c	Ballplay Creek at Gowens Road	Etowah	34.0849	85.8017	sec. 9, T. 11 S., R. 8 E.	16-Feb-11	1535-1610	0	Sampled some backwater channels that had no flow to them. Also sampled some of proper Ballplay upstream of bridge ~ 1200 ft.	Cal Johnson, Brett Smith
BP-3	Unnamed tributary to Ballplay Creek at Larry Lane's property	Etowah	34.0603	85.8048	sec. 20, T. 11 S., R. 8 E.	15-Feb-12	1145-1150	0		Cal Johnson
BP-4a	Unnamed tributary to Ballplay Creek at Co. Hwy. 71	Cherokee	34.0665	85.7801	sec. 22, T. 11 S., R. 8 E.	2-Feb-12	1240-1315	0		Cal Johnson, Tom Shepard
BP-4b	Unnamed tributary to Ballplay Creek at Co. Hwy. 71	Etowah	34.0665	85.7801	sec. 22, T. 11 S., R. 8 E.	7-Mar-12	1325-1345	0		Cal Johnson, Brett Smith
BP-5a	Unnamed tributary to Ballplay Cree at Co. Hwy 32	Cherokee	34.0620	85.7643	sec. 23, T. 11 S., R. 8 E.	2-Feb-12	1115-1145	0		Cal Johnson, Brett Smith

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BP-5b	Unnamed tributary to Ballplay Creek at Co. Hwy. 32	Cherokee	34.0620	85.7643	sec. 23, T. 11 S., R. 8 E.	7-Feb-12	1200-1210	0		Cal Johnson, Tom Shepard
BP-5c	Unnamed tributary to Ballplay Cree at Co. Hwy 32	Cherokee	34.0620	85.7643	sec. 23, T. 11 S., R. 8 E.	1-Mar-12	1025-1040	0		Cal Johnson, Brett Smith
BP-6a	Unnamed tributary to Ballplay Creek at Co. Hwy. 32	Cherokee	34.0519	85.7371	sec. 25, T. 11 S., R. 8 E.	9-Feb-10	1250-1310	0	Great looking habitat; flow was up and too turbid to see fish. Need to sample again.	Cal Johnson, Tom Shepard, Brett Smith
BP-6b	Unnamed tributary to Ballplay Creek at Co. Hwy. 32	Cherokee	34.0519	85.7371	sec. 25, T. 11 S., R. 8 E.	16-Mar-10	1215-1235	0	Habitat looks good. Need to revisit next breeding season. Substrate resembles all other breeding sites.	Cal Johnson, Tom Shepard
BP-6c	Unnamed tributary to Ballplay Creek at Co. Hwy. 32	Cherokee	34.0519	85.7371	sec. 25, T. 11 S., R. 8 E.	2-Feb-12	1225-1240	0		Cal Johnson, Brett Smith
BP-7a	Unnamed tributary to Ballplay Creek at Co. Hwy. 32	Etowah	34.0466	85.7310	sec. 30, T. 11 S., R. 9 E.	27-Jan-10	1520-1530	0	Poor trispot habitat; beaver dams were present. Minimal flow.	Cal Johnson, Kevin Baswell, Dan Catchings, Eric Spadgenske
BP-7b	Ballplay Creek at Co. Hwy. 32	Cherokee	34.0466	85.7310	sec. 30, T. 11 S., R. 9 E.	15-Feb-12	1500-1550	0		Cal Johnson
BP-7c	Ballplay Creek at Co. Hwy. 32	Cherokee	34.0467	85.7357	sec. 25, T. 11 S., R. 8 E.	28-Feb-12	1610-1635	0	Sampled on Mr. Downey's property.	Cal Johnson, Brett Smith
BP-8	Unnamed tributary to Ballplay Creek at Co. Hwy. 32	Cherokee	34.0415	85.7250	sec. 31, T. 11 S., R. 9 E.	1-Feb-12	1310-1315	0		Cal Johnson, Brett Smith
BP-9	Unnamed tributary Ballplay Creek at Co. Hwy. 39	Cherokee	34.0369	85.7104	sec. 32, T. 11 S., R. 9 E.	1-Mar-12	1200-1210	0		Cal Johnson, Brett Smith
BP-10	Unnamed tributary to Ballplay Creek at Co. Hwy. 39	Cherokee	34.0486	85.7114	sec. 29, T. 11 S., R. 9 E.	1-Feb-12	1350-1420	0		Cal Johnson, Brett Smith
BP-11	Unnamed tributary to Ballplay Creek at Clay Askew property	Cherokee	34.0520	85.7128	sec. 29, T. 11 S., R. 9 E.	1-Mar-12	1300-1310	0	Sampled on Mr. Clay Askew's property.	Cal Johnson, Brett Smith

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BP-12	Unnamed tributary to Ballplay Creek	Cherokee	34.0404	85.7398	sec. 36, T. 11 S., R. 8 E.	23-Feb-10	1355-1405	0	Walked down a hunting club road and sampled a small backwater area. Habitat was not good since the stream was deep and large due to beaver dams.	Cal Johnson, Brett Smith
BP-13	Ballplay Creek off of Co. Hwy. 24 at Farmer's Service Road	Cherokee	34.02846	85.747	sec. 36, T. 11 S., R. 8 E.	17-Feb-11	1115-1230	0	Accessed stream from farmers service road. Walked downstream and started sample.	Cal Johnson, Brett Smith
BP-14a	Unnamed tributary to Ballplay Creek at Jones Chapel Road	Cherokee	34.0218	85.7511	sec. 1, T. 12 S., R. 8 E.	23-Feb-10	1520-1600	3	All males were brightly colored but not running milt. The 3 males SL measurements are as follows: 49mm; 42mm; 39mm.	Cal Johnson, Brett Smith
BP-14b	Unnamed tributary to Ballplay Creek at Jones Chapel Road	Cherokee	34.0218	85.7511	sec. 1, T. 12 S., R. 8 E.	24-Feb-10	1500-1630	1	Walked further downstream than the day before sample (3 Feb 10) and worked upstream to the confluence of the unnamed tributary flowing from Rock Ford road and unnamed tributary flowing from Jones Chapel Road, but the channel was too deep and turbid to notice darters on the bottom. We sampled ~ 250 ft. of the tributary flowing from Rocky Ford road and caught a female that had a SL of 39mm. A fin clip was taken and given to Bernie Kuhajda for genetic analysis. The female was running eggs.	Cal Johnson, Brett Smith
BP-14c	Unnamed tributary to Ballplay Creek at Jones Chapel Road	Cherokee	34.0218	85.7511	sec. 1, T. 12 S., R. 8 E.	25-Feb-10	0900-0920 & 0925-1005	3	Captured 2 females and fin clipped both which had a SL measurement of 43mm and 49mm. Also made a recapture of a male that had a SL of 42 (fin was already clipped; that is how we knew it was a recapture).	Cal Johnson, Brett Smith, Pat O'Neil, Tom Shepard
BP-15a	Unnamed tributary to Ballplay Creek at Jones Chapel Road	Etowah	34.0240	85.7563	sec. 2, T. 12 S., R. 8 E.	27-Jan-10	1440-1450	0	Sampled ~ 600 ft. and did not capture any fish so we decided to suspend our effort. Channelized downstream of bridge- small braided stream upstream of bridge.	Cal Johnson, Kevin Baswell, Dan Catchings, Eric Spadgenske
BP-15b	Unnamed tributary to Ballplay Creek at Jones Chapel Road	Etowah	34.0240	85.7563	sec. 2, T. 12 S., R. 8 E.	9-Feb-10	1410-1430	0	Good habitat. Need to sample again. Sampled upstream portion of road crossing.	Cal Johnson, Tom Shepard, Brett Smith

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BP-15c	Unnamed tributary to Ballplay Creek at Jones Chapel Road	Cherokee	34.0240	85.7563	sec. 2, T. 12 S., R. 8 E.	11-Feb-10	0815-0840	0	Trispot habitat but no trispots discovered.	Cal Johnson, Andrew Henderson, Steve Rider
BP-15d	Unnamed tributary to Ballplay Creek at Jones Chapel Road	Etowah	34.0240	85.7563	sec. 2, T. 12 S., R. 8 E.	8-Feb-11	1420-1520	1	Walked ~ 1/2 mi downstream to the confluence of two tribs and captured one male that had a SL measurement of 35mm (39). Then sampled another ~ 1/2 mi downstream of Ballplay Creek and stopped at coordinates 34.0257°N 85.7468°W which is Cherokee County.	Cal Johnson, Tom Shepard
BP-16a	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Cherokee	34.0181	85.7519	sec. 1, T. 12 S., R. 8 E.	23-Feb-10	1110-1200	19	All trispots were captured within ~ 300 ft. reach of the stream. Male SL (mm): 48, 42, 43, 38, and 39. Female SL (mm): 45, 47, 36, 49, and 44. Then Bernie Kuhajda and Brook Fluker performed a 2nd collection ~ 120 ft. below initial starting point and captured 9 more trispots. Male SL (mm): 35, 42, and one male missed. Female SL (mm): 41, 41, 44, 41, 52, and 46.	Cal Johnson, Brett Smith
BP-16b	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Cherokee	34.0181	85.7519	sec. 1, T. 12 S., R. 8 E.	16-Mar-10	1305-1320	1	Released a Trispot Darter female that was a recapture from a previous sample (her caudal fin was clipped). Her SL measurement was 50mm.	Cal Johnson, Tom Shepard
BP-16c	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Etowah	34.0181	85.7519	sec. 1, T. 12 S., R. 8 E.	1-Apr-10	1135-1205	0		Cal Johnson, Tom Shepard
BP-16d	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Cherokee	34.0181	85.7519	sec. 2, T. 12 S., R. 8 E.	9-Feb-11	0930-1005	0		Stuart McGregor, Brett Smith
BP-16e	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Cherokee	34.0181	85.7519	sec. 2, T. 12 S., R. 8 E.	14-Mar-11	1120-1220	7	Captured 7 individuals above Co. Hwy. 24 road crossing. The males appeared to be spent and two of the females were running eggs. All of the females were gravid except for one. The SL measurements of the males were 40mm and 35mm. The SL measurements (mm) of the females were 36, 36, 39, 41 and 41.	Cal Johnson, Stuart McGregor

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BP-17a	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Cherokee	34.0168	85.7518	sec. 2, T. 12 S., R. 8 E.	3-Feb-10	1220-1520	12	Captured 11 Trispot Darters and missed 1 in an ephemera stream downstream of road crossing. All females were gravid and males were brightly colored. One male in particular was photographed to document its colorful display. Released two darters that came out of moss around base of tree that could have been in the act of spawning. Some of the female specimens were running eggs and some of the male specimens were running milt. It seemed that all the darters that were captured were all congregated. SL of males were as follows (mm): 39, 41, 51. SL measurement of females (mm): 50, 47, 46, 49, 46, 45, 53, 38. Caught all of these darters between a stretch of ~ 450 ft. of stream.	Cal Johnson, Tom Shepard, Brett Smith
BP-17b	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Etowah	34.0168	85.7518	sec. 2, T. 12 S., R. 8 E.	8-Feb-10	1110-1230 & 1330-1345	7	Released 7 trispots. 2 were male and 5 were female. One female was not netted. Male measurements (mm) were 40 and 42. Female measurements are 51, 44, 54, 43. Tributary was flowing more than previous sample (3 Feb 2010) due to heavy rains over the weekend.	Cal Johnson, Tom Shepard, Brett Smith, Brooke Fluker
BP-17c	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Etowah	34.0168	85.7518	sec. 2, T. 12 S., R. 8 E.	11-Feb-10	1000-1055	1	Captured and preserved 1 male that had a SL measurement of 43mm. Steve Rider kept specimen for his records.	Cal Johnson, Andrew Henderson, Steve Rider
BP-17d	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Cherokee	34.0168	85.7518	sec. 2, T. 12 S., R. 8 E.	17-Feb-11	0915-1020	5	Captured 3 female and 2 male Trispot Darters. The males SL measurements are 34mm and 44mm. The female Trispot Darters had a SL measurement of 36mm, 37mm, 38mm. The 38mm Trispot Darter was captured above the road crossing of Co. Hwy. 24. Water temperature was 45°F.	Cal Johnson, Brett Smith
BP-17e	Unnamed tributary to Ballplay Creek at Co. Hwy. 24	Cherokee	34.0168	85.7518	sec. 2, T. 12 S., R. 8 E.	2-Feb-12	0940-1010	6		Cal Johnson, Brett Smith
BP-18	Unnamed tributary to Ballplay Creek at Co. Hwy. 24 (Rocky Ford Road)	Etowah	34.0131	85.7518	sec. 1, T. 1 S., R. 8 E.	27-Jan-10	1335-1410	0		Cal Johnson, Kevin Baswell, Dan Catchings, Eric Spadgenske

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BP-19a	Unnamed tributary to Ballplay Creek at Alford Road	Etowah	34.0088	85.7575	sec.11, T. 12 S., R. 8 E.	16-Mar-10	1430-1510	5	Released 5 trispots. 4 were males and 1 was a female. Female was running eggs and the males were in peak but they were not running milt. The SL measurement (mm) of males are as follows: 42, 50, 44, 42. The SL of the lone female was 44mm. Sampled ~ 300 ft. of stream length.	Cal Johnson, Tom Shepard
BP-19b	Unnamed tributary to Ballplay Creek at Alford Road	Etowah	34.0088	85.7575	sec. 11, T. 12 S., R. 8 E.	1-Apr-10	1220-1300	5	Released 5 Trispot Darters. The females were running eggs and the smallest male that was captured did not have any color to him. The darters seem to be spawning this week at this location. Water temperature was 17° C.	Cal Johnson, Tom Shepard
BP-20a	Unnamed tributary to Ballplay Creek at Pollard's Pasture	Cherokee	34.0195	85.7446	sec. 1, T. 12 S., R. 8 E.	11-Feb-10	0900-0935	0	Walked downstream of proper Ballplay Creek and found ephemeral stream draining pasture. We made 2 samples- one at the mouth of trib and the other above the road crossing. Large amounts of debris were piled up at the mouth and this could have prevented fish from moving upstream, resembled slackwater darter breeding habitat.	Cal Johnson, Andrew Henderson, Steve Rider
BP-20b	Unnamed tributary to Ballplay Creek at Pollard's Pasture	Cherokee	34.0195	85.7446	sec. 1, T. 12 S., R. 8 E.	16-Mar-10	1345-1415	0	Walked ~ 1,000 ft. downstream of bridge to an overflow channel and started sample. The channel was not connected at the time to the main channel of Ballplay Creek and the habitat was not good. Do not need to revisit.	Cal Johnson, Tom Shepard
BP-21	Unnamed tributary to Ballplay Creek at Gnatville Road	Cherokee	33.9912	85.7526	sec. 13, T. 12 S., R. 8 E.	24-Feb-10	1140-1150	0	Stream was deeply entrenched.	Cal Johnson, Brett Smith
BP-22	Unnamed tributary to Little Ballplay Creek at Co. Hwy. 19	Cherokee	34.0076	85.7093	sec. 8, T. 12 S., R. 9 E.	10-Feb-10	1005-1015	0	Stream was entrenched; not good breeding habitat.	Cal Johnson, Tom Shepard, Brett Smith
BP-23	Little Ballplay Creek at Co. Hwy. 314	Cherokee	33.9897	85.7334	sec. 18, T. 12 S., R.9 E.	3-Feb-10	1005-1040	0	Sampled ~ 600 ft. upstream of bridge until the creek's habitat transitioned into beaver swamp. Then walked ~ 400 ft. downstream of bridge and sampled a small overflow area, which yielded no results.	Cal Johnson, Tom Shepard, Brett Smith
BP-24	Unnamed tributary to Ballplay Creek at Private Road	Etowah	33.9681	85.7384	sec. 25, T. 12 S., R. 8 E.	4-Feb-10	0950-1015	0	Stream was entrenched and had too much flow; poor trispot habitat.	Cal Johnson, Tom Shepard, Brett Smith

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
BP-25	Unnamed tributary to Ballplay Creek at Co. Hwy. 19	Cherokee	33.9578	85.7136	sec. 29, T. 12 S., R. 9 E.	3-Feb-10	0845-0915	0	Sampled - 450 ft. upstream of bridge.	Cal Johnson, Tom Shepard, Brett Smith
BP-26	Unnamed tributary to Ballplay Creek at Co. Hwy. 19	Calhoun	33.9619	85.7129	sec. 29, T. 12 S., R. 9 E.	10-Feb-10	0825-0840	0	Stream had a cobble/gravel substrate. Not breeding habitat.	Cal Johnson, Tom Shepard, Brett Smith
BP-27	Little Ballplay Creek at Co. Hwy. 19	Cherokee	33.9904	85.7082	sec. 17, T. 12 S., R. 9 E.	24-Feb-10	0900-1020	0	Got permission from landowner to survey creek on his property. We walked upstream of road crossing and sampled a tributary that looked like great spawning habitat but only found coldwater darters.	Cal Johnson, Brett Smith
BP-28	Little Ballplay Creek at Co. Hwy. 19	Cherokee	33.9904	85.7082	sec. 17, T. 12 S., R. 9 E.	24-Feb-11	1350-1405	0		Cal Johnson, Tom Shepard
BP-29	Unnamed tributary to Little Ballplay Creek at Co. Hwy. 6	Cherokee	33.9959	85.7052	sec. 7, T. 12 S., R. 9 E.	10-Feb-10	0920-0940	0	Sampled ephemeral tributary flowing into creek but it was not the silt/clay/detritus habitat that resembles Trispot Darter spawning habitat.	Cal Johnson, Tom Shepard, Brett Smith
SU-1	Sugar Creek upstream of Co. Hwy. 71	Cherokee	34.0713	85.7534	sec. 14, T. 11 S., R. 8 E.	24-Feb-11	0930-1040	0		Cal Johnson, Tom Shepard
SU-2	Headwaters of Sugar Creek at Co. Hwy. 55	Cherokee	34.0856	85.6965	sec. 9, T. 11 S., R. 9 E.	16-Feb-11	1345-1410	0	Mostly channelized.	Cal Johnson, Brett Smith
YC-1	Unnamed tributary to Yellow Creek at Co. Hwy. 48	Cherokee	34.2400	85.7271	sec. 19, T. 9 S., R. 9 E.	8-Feb-11	1000-1020	0		Stuart McGregor, Brett Smith
YC-2a	Yellow Creek at Alabama Hwy. 68	Cherokee	34.2192	85.7661	sec. 26, T. 9 S., R. 8 E.	8-Feb-11	1130-1155	0		Stuart McGregor, Brett Smith
YC-2b	Yellow Creek at Alabama Hwy. 68	Cherokee	34.2192	85.7661	sec. 26, T. 9 S., R. 8 E.	15-Feb-11	1445-1515	0	Sampled 2 tributaries flowing into Yellow Creek.	Cal Johnson, Brett Smith
YC-3	Tributary to Yellow Creek at Co. Hwy. 36 ~ 1 mile NW of Bristow	Cherokee	34.2083	85.7822	sec. 34, T. 9 S., R. 8 E.	8-Feb-11	1400-1430	0		Stuart McGregor, Brett Smith

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
YC-4a	Yellow Creek at Co. Hwy. 70	Cherokee	34.2151	85.8012	sec. 28, T. 9 S., R. 8 E.	8-Feb-11	1040-1110	0		Stuart McGregor, Brett Smith
YC-4b	Tributary to Yellow Creek at Co. Hwy. 70	Cherokee	34.215	85.8011	sec. 33, T. 9 S., R. 8 E.	15-Feb-11	1315-1345	0	No fish. Heavy sand bed load below culvert. Started sample above road crossing.	Cal Johnson, Brett Smith
YC-5	Tributary to Yellow Creek at Co. Hwy. 17	Cherokee	34.2201	85.8012	sec. 28, T. 9 S., R. 8 E.	15-Feb-11	1410-1425	0	Sampled overflow pools next to creek. No fish.	Cal Johnson, Brett Smith
YC-6	Roadside ditch tributary to Jones Branch at intersection of Co. Hwy. 48 and Alabama Hwy. 68	Cherokee	34.2396	85.8083	sec. 21, T. 9 S., R. 8 E.	8-Feb-11	1245-1305	0		Stuart McGregor, Brett Smith
TC-1	Unnamed tributary to Terrapin Creek at Farmer's Service Road near Co. Hwy. 169	Cherokee	34.1060	85.6797	sec. 3, T. 11 S., R. 9 E.	10-Feb-10	1315-1330	0	Stream drains through farmer's agricultural row crop field. Stream was heavily impacted by sediment. No fish.	Cal Johnson, Tom Shepard, Brett Smith
TC-2	Unnamed tributary to Terrapin Creek at Co. Hwy. 19	Cherokee	34.1054	85.6787	sec. 3, T. 11 S., R. 9 E.	10-Feb-10	1135-1155	0		Cal Johnson, Tom Shepard, Brett Smith
TC-3	Unnamed tributary to Terrapin Creek at Co. Hwy. 19	Cherokee	34.1032	85.6838	sec. 4, T. 11S., R. 9 E.	3-Mar-11	1215-1235	0		Cal Johnson, Tom Shepard
TC-4	Unnamed tributary to Terrapin Creek at Co. Hwy. 59	Cherokee	34.0646	85.6362	sec. 24, T. 9 S., R. 11 E.	16-Feb-11	0920-0935	0		Cal Johnson, Brett Smith
TC-5a	Unnamed tributary to Terrapin Creek at Co. Hwy. 59	Cherokee	34.0864	85.6581	sec. 11, T. 11 S., R. 9 E.	16-Feb-11	1005-1020	0		Cal Johnson, Brett Smith
TC-5b	Unnamed tributary to Terrapin Creek at Co. Hwy. 59 on Jordan Farms	Cherokee	34.0870	85.6615	sec. 11, T. 11 S., R. 9 E.	16-Feb-11	1030-1115	0	Tributary was appropriate habitat for spawning.	Cal Johnson, Brett Smith
TC-5c	Unnamed tributary to Terrapin Creek at Co. Hwy. 59 on Jordan Farms	Cherokee	34.0870	85.6615	sec. 11, T. 11 S., R. 9 E.	3-Mar-11	1135-1150	0	No fish.	Cal Johnson, Tom Shepard
TC-6	Unnamed tributary to Terrapin Creek at Co. Hwy. 14	Cherokee	34.0543	85.6673	sec. 27, T. 11 S., R. 9 E.	9-Feb-10	1130-1145	0	Tributary was up due to heavy rainfall the night before. Not good Trispot Darter spawning habitat.	Cal Johnson, Tom Shepard, Brett Smith

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
TC-7	Shaver Branch at Co. Hwy. 59	Cherokee	34.0649	85.6403	sec. 24, T. 11 S., R.9 E.	9-Feb-10	0915-0935	0	Sampled ~ 200 ft. below bridge and 100 ft. above bridge. Poor habitat.	Cal Johnson, Tom Shepard, Brett Smith.
TC-8	Shaver Branch upstream of Co. Hwy. 14	Cherokee	34.0574	85.6464	sec. 25, T. 11 S., R. 9 E.	24-Feb-10	1145-1215	0	Good habitat, but too high of a gradient. Pools alternating with bedrock/fine gravel riffles.	Tom Shepard, Pat O'Neil
TC-9	Little Creek at Co. Hwy. 14	Cherokee	34.0598	85.6256	sec. 19, T. 11 S., R. 10 E.	24-Feb-10	1020-1100	0	Sampled from bridge upstream to small tributary on right bank looking upstream. Sampled tributary ~ 100 ft.	Tom Shepard, Pat O'Neil
TC-10	Unnamed tributary to Shaver Branch at Co. Hwy. 14	Cherokee	34.0560	85.5991	sec. 29, T. 11 S., R. 10 E.	9-Feb-10	1045-1100	0	Not good breeding habitat.	Cal Johnson, Tom Shepard, Brett Smith
TC-11	Unnamed tributary to Terrapin Creek at Alabama Hwy. 9	Cherokee	34.0303	85.6154	sec. 31, T. 11 S., R. 10 E.	16-Feb-11	0815-0830	0		Cal Johnson, Brett Smith
TC-12	Unnamed tributary to Terrapin Creek at intersection of Estes and Fowler Roads	Cherokee	33.9752	85.5912	sec. 21, T. 12 S., R. 10 E.	4-Feb-10	0835-0900	0	Sampled ~ 650 ft. of two small flowing tributaries, but it looked like poor trispot habitat.	Cal Johnson, Tom Shepard, Brett Smith
TC-13	Frog Creek at small tributary at Co. Hwy. 29	Cherokee	34.0392	85.4691	sec. 34, T. 11 S., R. 11 E.	24-Feb-10	1350-1410	0	Poor Trispot Darter habitat due to high gradient, cobble/bedrock substrate.	Tom Shepard, Pat O'Neil
CC-1	Unnamed tributary to Cowan Creek at Co. Hwy. 168	Cherokee	34.0660	85.5918	sec. 21, T. 11 S., R. 10 E.	24-Feb-10	1510-1520	0	Moderately heavy silt/algae substrate. Poor trispot habitat.	Tom Shepard, Pat O'Neil
CC-2	Cowan Creek at Co. Hwy. 34	Cherokee	34.0938	85.5798	sec. 9, T. 11 S., R. 10 E.	28-Jan-10	1335-1355	0	Sampled 1500 ft. upstream of bridge. Stream was channelized which ran through a pasture. Chicken houses were upstream and creek had embayment influence from reservoir; poor Trispot Darter habitat.	Cal Johnson, Kevin Baswell, Michael Holly
CC-3a	Firestone Branch at Co. Hwy. 33	Cherokee	34.0666	85.5755	sec. 22, T. 11 S., R. 10 E.	1-Dec-09	1525-1650	0	Habitat looks good. Sampled ~ 450 ft. downstream of bridge until we reached a deep pool. Crossed road crossing and picked sample back up where there were multiple beaver dams.	Tom Shepard, Cal Johnson
CC-3b	Firestone Branch at Co. Hwy. 33	Cherokee	34.0666	85.5755	sec. 22, T. 11 S., R. 10 E.	27-Jan-10	1130-1215	0	Poor Trispot Darter habitat-beaver dams were present.	Cal Johnson, Kevin Baswell, Dan Catchings, Eric Spadgenske

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
CC-4a	Bob Hollow Branch at Co. Hwy. 168	Cherokee	34.0657	85.5656	sec. 22, T. 11 S., R. 10 E.	1-Dec-09	1440-1500	0	1st order stream with a lot of vegetation. Habitat looks good with a clay-like substrate.	Tom Shepard, Cal Johnson
CC-4b	Bob Hollow Branch at Co. Hwy. 168	Cherokee	34.0657	85.5656	sec. 22, T. 11 S., R. 10 E.	27-Jan-10	1050-1110	0		Cal Johnson, Kevin Baswell, Dan Catchings, Eric Spadgenske
CC-4c	Bob Hollow Branch at Co. Hwy. 168	Cherokee	34.0657	85.5656	sec. 22, T. 11 S., R. 10 E.	28-Jan-10	1420-1520	0	Habitat looked good, but not the right substrate. Started sample downstream of road crossing and worked upstream past road crossing. Sampled ~ 850 ft. of stream and the dominant species was bluegill. Clear cut upstream of road crossing.	Cal Johnson
CC-4d	Bob Hollow Branch at Co. Hwy. 168	Cherokee	34.0657	85.5658	sec. 22, T. 11 S., R. 10 E.	10-Feb-10	1400-1420	0	Sampled small, pooled stream that looked like good Trispot Darter habitat that had few fishes.	Pat O'Neil, Andrew Henderson, Steve Rider
CC-4e	Bob Hollow Branch at Co. Hwy. 168	Cherokee	34.0657	85.5657	sec. 22, T. 11 S., R. 10 E.	9-Feb-11	0830-0905	0	Sampled main channel and tributary.	Stuart McGregor, Brett Smith
CC-4f	Bob Hollow Branch at Co. Hwy. 168	Cherokee	34.0657	85.5656	sec. 22, T. 11 S., R. 10 E.	23-Feb-11	1350-1400	0	No fish.	Cal Johnson, Tom Shepard
CC-5a	Cowan Creek at Co. Hwy. 168	Cherokee	34.0692	85.5551	sec. 23, T. 11 S., R. 11 E.	1-Dec-09	1250-1350	0	Creek substrate resembled APCO property.	Tom Shepard, Cal Johnson
CC-5b	Cowan Creek at Co. Hwy. 168	Cherokee	34.0691	85.5551	sec. 23, T. 11 S., R. 10 E.	27-Jan-10	0930-1000	0	Stream was entrenched and had a cobble/gravel substrate mixture.	Cal Johnson, Kevin Baswell, Dan Catchings, Eric Spadgenske
CC-6a	Dry Slough at Co. Hwy. 113	Cherokee	34.0798	85.5559	sec. 14, T. 11 S., R. 10 E.	10-Feb-10	1440-1510	0	Poor Trispot Darter habitat because of fine gravel/sand substrate. Stream and well developed riffle/run sequence.	Pat O'Neil, Andrew Henderson, Steve Rider
CC-6b	Dry Slough at Co. Hwy. 113	Cherokee	34.0798	85.5559	sec. 14, T. 11 S., R. 10 E.	23-Feb-11	1300-1320	0	Sampled below road crossing and worked up to road.	Cal Johnson, Tom Shepard
CC-7	Horsepen Branch at Co. Hwy. 113	Cherokee	34.0983	85.5521	sec. 11, T. 11 S., R. 10 E.	23-Feb-11	1140-1210	0		Cal Johnson, Tom Shepard

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
CC-8	Unnamed tributary to Horsepen Branch at Co. Hwy. 34	Cherokee	34.0896	85.5366	sec. 12, T. 11 S., R. 10 E.	28-Jan-10	1245-1300	0	Poor trispot habitat-landowner had dammed up creek to create a watering hole for livestock.	Cal Johnson, Kevin Baswell, Michael Holly
CH-1	Tributary to Grays Creek at Co. Hwy. 120	Cherokee	34.2986	85.5378	sec. 36, T. 8 S., R. 10 E.	9-Feb-11	1440-1450	0	No fish.	Cal Johnson, Tom Shepard
CH-2	Unnamed tributary to Mills Creek at Co. Hwy. 97	Cherokee	34.3124	85.5222	sec. 30, T. 8 S., R. 11 E.	9-Feb-11	1515-1525	0	No fish.	Cal Johnson, Tom Shepard
CH-3	Unnamed tributary to Chattooga River at Co. Hwy. 80	Cherokee	34.2802	85.5169	sec. 6, T. 9 S., R. 11 E.	9-Feb-11	1315-1325	0	Not good breeding habitat for Trispot Darters. No fish.	Cal Johnson, Tom Shepard
SC-1	Sandy Creek at Sandy Creek Church Co. Hwy. 18	Cherokee	34.0734	85.4994	sec. 17, T. 11 S., R. 11 E.	10-Feb-10	0940-0955	0	Sampled stream next to church. Habitat looked good with slow pools. Beaver pond upstream of road.	Pat O'Neil, Andrew Henderson
SP-1	Forney Branch at Co. Hwy. 162	Cherokee	34.1085	85.4900	sec. 4, T. 11 S., R. 11 E.	10-Feb-10	1230-1250	0	Heavy beaver activity that has caused heavy silt deposits in pools and extensive dams.	Pat O'Neil, Andrew Henderson, Steve Rider
SP-2	Forney Branch at U.S. Hwy. 411	Cherokee	34.0865	85.4664	sec. 15, T. 11 S., R. 11 E.	10-Feb-10	0925-0945	0	Poor Trispot Darter habitat; beaver dams were present. Heavy cow usage and sediment load.	Cal Johnson, Kevin Baswell, Michael Holly
SP-3	Spring Creek at Co. Hwy. 29 south of McCords Crossing	Cherokee	34.1081	85.4612	sec. 3, T. 11 S., R. 11 E.	28-Jan-10	1145-1215	0	Sampled small ditches and overflow pools upstream of bridge.	Pat O'Neil, Andrew Henderson, Steve Rider
SP-4	Unnamed tributary to Spring Creek at Co. Hwy. 159	Cherokee	34.1047	85.4537	sec. 2, T. 11 S., R. 11 E.	10-Feb-10	1050-1120	0	Nice looking habitat but landowner has recently channelized portion of stream.	Cal Johnson, Kevin Baswell, Michael Holly
SP-5	Unnamed tributary to Spring Creek at Co. Hwy. 101	Cherokee	34.1048	85.4344	sec. 1, T. 11 S., R. 11 E.	28-Jan-10	1010-1035	0	Habitat looked good, but had heavy silt deposits throughout. May have been too far upstream at this time in the spawning season.	Pat O'Neil, Andrew Henderson
UT-4	Unnamed tributary to Weiss Lake	Cherokee	34.2444	85.5294	sec. 24, T. 9 S., R. 10 E.	9-Feb-11	1345-1400	0	Substrate resembles breeding habitat for Trispot Darters.	Cal Johnson, Tom Shepard
UT-5	Ephemeral stream to Weiss Lake	Cherokee	34.2332	85.4970	sec. 29, T. 9 S., R. 11 E.	9-Feb-11	1040-1050	0	Sampled small ephemeral stream running through a hayfield. Habitat resembled that of Slackwater Darter. No fish.	Cal Johnson, Tom Shepard
UT-6	Direct tributary to Weiss Lake at Co. Hwy. 51	Cherokee	34.2280	85.4855	sec. 28, T. 9 S., R. 11 E.	9-Feb-11	0950-1015	0	Good habitat-small gravel over clay/silt substrate. Little flow sampled upstream of bridge ~ 1200 ft.	Cal Johnson, Tom Shepard

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of <i>E. trisella</i> collected	Notes	Collectors
UT-7	Direct tributary to Coosa River at Co. Hwy. 71	Cherokee	34.0432	85.8151	sec. 29, T. 11 S., R. 8 E.	6-Feb-12	1410-1525	0		Cal Johnson, Tom Shepard
UT-8	Direct tributary to Coosa River at Kershaw Quarters Road	Etowah	34.1041	85.8358	sec. 6, T. 11 S., R. 8 E.	7-Feb-12	0845-0905	0		Cal Johnson, Tom Shepard
UT-9	Direct tributary to Coosa River at Co. Hwy. 5	Cherokee	34.1034	85.7918	sec. 4, T. 11 S., R. 8 E.	7-Feb-12	0940-0950	0		Cal Johnson, Tom Shepard
UT-10	Direct tributary to Coosa River at Ala. Hwy. 77	Calhoun	33.7964	86.0368	sec. 20, T. 14 S., R. 6 E.	8-Mar-12	0840-0855	0	Rocky substrate. Not Trispot Darter habitat.	Cal Johnson, Brett Smith
NB-1	Headwater tributary of Ballplay Creek at Co. Hwy. 123	Cherokee	34.2646	85.4633	sec. 10, T. 9 S., R. 11 E.	9-Feb-11	1150-1200	0	Small headwater stream with cobble/gravel mixture with some clay-like shaly limestone mixture.	Cal Johnson, Tom Shepard
VB-1	Vanns Branch at Co. Hwy. 123 near AL/GA state line	Cherokee	34.2696	85.4586	sec. 10, T. 9 S., R. 11 E.	9-Feb-11	1115-1125	0	Not good breeding habitat for Trispot Darters. No fish.	Cal Johnson, Tom Shepard
OH-1	Unnamed tributary to Ohatchee Creek at Grayton Road	Calhoun	33.8007	85.9952	sec. 22, T. 14 S., R. 6 E.	8-Mar-12	0925-0940 & 0955-1010	0	Drove downstream ~ 820 ft. and sampled same tributary at coordinates 33.8001°N, 85.9946°W.	Cal Johnson, Brett Smith
OH-2	Unnamed tributary to Ohatchee at Warrior Road	Calhoun	33.7983	85.9854	sec. 22, T. 14 S., R. 6 E.	8-Mar-12	1030-1040	0		Cal Johnson, Brett Smith
OH-3	Unnamed tributary to Ohatchee Creek at Hellamanard Road	Calhoun	33.8076	85.9748	sec. 14, T. 14 S., R. 6 E.	8-Mar-12	1100-1120	0		Cal Johnson, Brett Smith
OH-4	Unnamed tributary to Ohatchee Creek at North Hellamanard Road	Calhoun	33.8225	85.9650	sec. 14, T. 14 S., R. 6 E.	8-Mar-12	1145-1200	0		Cal Johnson, Brett Smith

Appendix B

List of fish species collected at stations sampled for the Trispot Darter in
Alabama, 2008-12

Species - common name	Sampling station						
	BR-1	SH-1	SH-2	BV-1	BV-2	BV-3	BV-4
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	X	X	X	X	X	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	X	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	X	X	--	X	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	X	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	X	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	X	X	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	X	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	X	--	X	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	X
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	X	X	--	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	X	--	X	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	X	--	--	--	X	--	X
<i>Lepomis cyanellus</i> - Green Sunfish	X	X	X	X	X	X	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	--	X	X	X	--	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	X	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	X
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	X	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	X	--	--	X
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	X	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	X	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	X
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	X	X	--	--

Species - common name	Sampling station						
	BV-5	BV-6	BV-7	BC-1	BC-2	BC-3	BC-4
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	X	X	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbicus</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	X	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	X	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	X	--	X	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	X	--	X	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	X	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	--	--	X	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	X	X	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	X	--	X	--
<i>Lepomis gulosus</i> - Warmouth	--	--	X	X	--	X	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	X	X	X	X	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	X	X	--	X
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	X	X	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	X	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	X	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	X	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-5	BC-6	BC-7	BC-8	BC-9	BC-10a	BC-10b
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	--	X	X	--	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	X	X	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	X	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbicus</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	X	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	--	X	--	X	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	X	--	X	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	X	X	X	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	X	X	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	X	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	X	X	X	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	X	--	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	X	--	X	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	X	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	X	--	X	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	X	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	X	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-11	BC-12	BC-13a	BC-13b	BC-14	BC-15	BC-16
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	X	--	--	--	--	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	X	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	X	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	X	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	X	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	X	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	X	--	--	X	X	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	--	X	--	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	X	--	--	--	--	X
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	X	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	X	--	--	X	X	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	X	--	--	X
<i>Lepomis gulosus</i> - Warmouth	--	--	X	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	X	--	X	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	X	--	--	X	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	X	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	X	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	X	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	--	--	X	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	X	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	X	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	X	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-17a	BC-17b	BC-18a	BC-18b	BC-19	BC-20	BC-21a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	X	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	X	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	--	--	--	--	--	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	X	--	--	--	X	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	--	--	--	X	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	1	--	--	2	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aploidinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-21b	BC-22	BC-23	BC-24	BC-25	BC-26	BC-27
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	X	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	X	--	X	X	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	X
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	X	X	X
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	X	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	X	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	X	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	X	--	X	--	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	X	X
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	X	X	X
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	X	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	--	X	--	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	X	--	--	X	X
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	X	--	X	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	X	X	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	X	--	X	--	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	X	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	X	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	X	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	9	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	X	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-28	BC-29	BC-30	BC-31	BC-32	BC-33	BC-34a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--		--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	X	X	--		--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	X	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	X	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	X	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	X	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--		--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--		--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--		--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	X		--	--
Cottidae - sculpins							
<i>Cottus caroliniae</i> - Banded Sculpin	--	X	X	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--		--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	X	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	--	X	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	X	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	--	--		--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	1	1	1	2
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-34b	BC-34c	BC-34d	BC-35a	BC-35b	BC-35c	BC-35d
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	X	X	--	X	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	X
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	X	X	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	X	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	X	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	X	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	X
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	X	X	--	--	--	X
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poecillidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	X	--	--	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	X	X	--	--	X	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	X
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	--	--	--	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	X	--	--	X
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	--	X	--	X	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	X	--	X	--	--	X
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	X	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	X	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	X	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	3	2	15	13	13	--	32
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-35e	BC-36a	BC-36b	BC-37a	BC-37b	BC-37c	BC-37d
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	X	--	--	X	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	X	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	X	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	--	X	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	X	X	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	X	X	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	--	--	--	X	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	X	--	--	--	--	X
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	21	52	4	9	--	13	2
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-38a	BC-38b	BC-38c	BC-39a	BC-39b	BC-39c	BC-39d
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	X	--	X	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	X	--	X	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbicus</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	--	X	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poecillidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	X	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	X	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	--	--	--	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	X	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	X	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	54	3	--	18	2	4	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-39e	BC-39f	BC-39g	BC-39h	BC-40a	BC-40b	BC-41a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	--	X	--	--	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	X
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	X
<i>Cyprinella venusta</i> - Blacktail Shiner	X	--	--	--	--	--	X
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbicus</i> - Silverstripe Shiner	--	--	--	--	--	--	X
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	X
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	X
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	X
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	X
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	X	X	X	--	--	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	X
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	X
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	X
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	X	--	--	--	X
<i>Lepomis megalotis</i> - Longear Sunfish	X	--	X	--	--	--	X
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	X
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	X
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	X
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	X
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	X	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	X
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	X
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	X
<i>Etheostoma trisella</i> - Trispot Darter	5	5	--	13	--	3	3
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	X
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-41b	BC-41c	BC-41d	BC-41e	BC-41f	BC-42a	BC-42b
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	X	X	--	X	--	X
<i>Cyprinella callistia</i> - Alabama Shiner	X	X	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	X	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	X	X	X	--	X	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	X	X	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	X	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbicus</i> - Silverstripe Shiner	X	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	X	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	X	--	--	--	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	X	--	X	--	--	X	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	X	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	X	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	X	X	X	--	X	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	X	X	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	X	X	X	--	X	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	X	--	X	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	X	X	--	--	X	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	X	X	--	--	--	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	X	X	--	X	X	X
<i>Lepomis megalotis</i> - Longear Sunfish	X	X	X	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	X	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	X	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	X	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	X	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	X	X	X	--	X	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	X	X	X	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	X	X	X	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	X	X	X	--	X	X	--
<i>Etheostoma trisella</i> - Trispot Darter	7	7	33	6	8	--	50
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	X	X	X	--	X	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-42c	BC-42d	BC-42e	BC-43a	BC-43b	BC-43c	BC-43d
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	X	X	X	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	X	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	X	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	X	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	X	X	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	X	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	X	X	X	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	X	--	X
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	X	--	X	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	X	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	--	X	X	X	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	X	--	X	X	X
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	44	7	18	22	12	21	49
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-43e	BC-43f	BC-44a	BC-44b	BC-44c	BC-45	BC-46a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	X	X	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	X	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	X	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	X
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	X	X
<i>Notropis stilbicus</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	X	--	--	X	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	X	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	X	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	X	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poecillidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	X	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	X	--	--	X	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	X	--	--	X	X
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	X
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	81	85	53	14	1	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-46b	BC-47	BC-48	BC-49	BC-50	BC-51	BC-52
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	X	X	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	X	X	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	X	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	X	--	X	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	X	--	--	--	X	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	X	X	X	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	X	--	X	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	X	--	--	--
Cottidae - sculpins							
<i>Cottus caroliniae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	X	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	--	X	X	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	X	X	--	--	X
<i>Lepomis megalotis</i> - Longear Sunfish	X	X	--	X	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	X	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	X	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	X	X	X	X	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	X	X	X	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	X	X	X	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	1	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	X	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-53	BC-54	BC-55	BC-56	BC-57	BC-58	BC-59
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	X	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	X	--	X	X	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	X	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	X	--	--	X	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	X	X	X	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	X	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	X	X	X	--	X	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	X	X	X	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	X	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	X	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	X	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	X	X	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	X	--	--	X	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	--	--	X	--
<i>Lepomis gulosus</i> - Warmouth	--	--	X	--	--	X	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	--	--	--	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	X	--	--	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	X	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	X	--	X	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	X	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	X	--	X	--	--	X	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	X	--	X	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	X	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	3	7	--	5
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	X	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-60	BC-61a	BC-61b	BC-62	BC-63	BC-64	BC-65
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	X	X	--	X	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	X	X	X	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	X	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	X	X	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	X	X	--	X	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	X	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	X	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	X	X	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	X	--	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	X	X	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	X	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	X	X	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	X	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	X	X	--	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	X	X	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	X	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	X	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	X	X	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	X	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	X	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	5	--	4	2
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-66	BC-67	BC-68a	BC-68b	BC-69	BC-70	BC-71a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	X	X	X	X	X	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	X	X	--	X
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	X	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	X	X	X	X	X	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	X	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	X	X	--	X	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	--	X	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	X	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	X	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	X	X	X	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	--	X	X	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	X	--	--	--	--	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	X	X	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	3	--	--	--	13	3	20
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-71b	BC-72a	BC-72b	BC-72c	BC-72d	BC-72e	BC-72f
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	X	X	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	X	X
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	X	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	X	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	X	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	X	--	X	--	--	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	X	--
<i>Minytrema melanops</i> - Spotted Sucker	--	X	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	X	X
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	--	--	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	X	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	X	--	X	X	X	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	X	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	X	X	X	X	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	X	--	X	--	--	X
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	X	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma sigmaeum</i> - Speckled Darter	--	--	--	--	--	X	--
<i>Etheostoma trisella</i> - Trispot Darter	3	1	3	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	X	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-72g	BC-73	BC-74a	BC-74b	BC-75	BC-76	BC-77
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	X	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	X	--	--	X	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	X	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	X	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	X	--	--	--	X	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	X	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	X	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	X	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	X	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	X	--	--	X	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	X	X	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	X	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	X	X	--	--	X	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	X	--	--	--	X	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	X	X	--	--	X	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	X	--	--	X	X	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	X	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	X	--	--	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	X	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	X	--	--	--	--	--	--
centrarchid hybrid	X	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	X	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	X	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	X	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	5	3	3	--	2	2
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	X	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BC-78	BC-79	BC-80	BC-81	BC-82	BC-83	BC-84
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	X	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	X	--	X	X	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	X	--	X	X	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	--	X	X	--	X	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	X	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	X	X	X	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	X	X	X	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	X
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	X	X	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	X	X	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	X	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	X	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	X	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	X	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	X	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	X	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	9	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	X	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BG-1	BG-2	TT-1	UT-1	UT-2	UT-3	LD-1a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	--	X	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	X	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	X	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	X	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	X	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	--	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	X	--	--	--	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	X	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	X	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	LD-1b	DR-1a	DR-1b	DR-2	DR-3	DR-4	DR-5a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	X	--	X	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	X	X	--	--	--	--	X
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	X	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	X	--	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	--	X	X	--	X	X
<i>Lepomis gulosus</i> - Warmouth	--	X	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	X	X	X	--	--	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	X	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	X	--	--	--	--	X
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	X	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	DR-5b	DR-5c	DR-5d	DR-5e	DR-6	CR-1	BP-1a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	X	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	X	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	X	X	X	--	X	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	X	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	X	--	--	--	X	--
<i>Lepomis gulosus</i> - Warmouth	--	X	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	--	--	X	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	X	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	X	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	X	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BP-1b	BP-1c	BP-2a	BP-2b	BP-2c	BP-3	BP-4a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	X	--	--	X	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	X	X	--	--	--	--	X
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	X	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	--	--	X	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	X	--	--	X	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BP-4b	BP-5a	BP-5b	BP-5c	BP-6a	BP-6b	BP-6c
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	X	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	--	X	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	--	--	X	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	X	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BP-7a	BP-7b	BP-7c	BP-8	BP-9	BP-10	BP-11
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	X	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	X	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	--	X	X	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	--	X	--	X	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	X	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BP-12	BP-13	BP-14a	BP-14b	BP-14c	BP-15a	BP-15b
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	X	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	--	--	X	X	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	X	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	X	--	--	--
<i>Lepomis gulosus</i> - Warmouth	X	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	--	--	X	X	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	X	--	--	X	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	X	X	X	X	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	3	1	3	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BP-15c	BP-15d	BP-16a	BP-16b	BP-16c	BP-16d	BP-16e
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	X	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	X	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	X	X	X
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	X	--	X
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	--	--	X	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	X	--	X
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	X	--	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	X	--	X
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	X
<i>Lepomis macrochirus</i> - Bluegill	X	--	X	X	X	--	X
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	X	--	--	X
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	X	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	X	X	X	--	X
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	1	1--	1	--	--	8
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BP-17a	BP-17b	BP-17c	BP-17d	BP-17e	BP-18	BP-19a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	X	X	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	X	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	X	X	--	--	X	X	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	X	X	--	--	X	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	X	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	X	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	X	--	--	--	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	X	--	--	X	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	X	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	X	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	X	X	--	X	X	X	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	12	7	1	6	--	--	5
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BP-19b	BP-20a	BP-20b	BP-21	BP-22	BP-23	BP-24
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	X	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	X	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	X	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	X	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	X	--	--	--	--	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	X	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	--	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	X	--	X	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	--	--	--	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	X	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	X
<i>Etheostoma ditrema</i> - Coldwater Darter	X	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	5	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	BP-25	BP-26	BP-27	BP-28	BP-29	SU-1	SU-2
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	X	X	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	X	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	X	--	--	X	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	X	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	X	X	X	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	X	X	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	X	X	X	X	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	X	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	X	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	X	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	X	--	X	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	X	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	X	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	X	X	--	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	X	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	X	X	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	X	--	X	--	--	X	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	YC-1	YC-2a	YC-2b	YC-3	YC-4a	YC-4b	YC-5
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	X	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	X	X	--	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	YC-6	TC-1	TC-2	TC-3	TC-4	TC-5a	TC-5b
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	X	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	X	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	X	--	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	TC-5c	TC-6	TC-7	TC-8	TC-9	TC-10	TC-11
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	X	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	X	X	X	X	X	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	X	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	X	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	X	X	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	X	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	X	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	X	--	X
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	--	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	X	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	X	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	X	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	X	--	X
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	X	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	X	--	X	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	X	X	X	--	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	X	--	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	X	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	X	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	X	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	X	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	TC-12	TC-13	CC-1	CC-2	CC-3a	CC-3b	CC-4a
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	X	--	--	X	X	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	X	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	X	--	--	--	X	X	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	X	X	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	X	X	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	X	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	X	--	--	--	--	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	X	X	--	--	X	X	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	X	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	X	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	X	--	--	X	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	X	--	X	--
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	X	X	X
<i>Lepomis gulosus</i> - Warmouth	--	X	--	--	X	X	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	X	--	X	X	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	X	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	X
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	--	--	X	X	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	X	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	CC-4b	CC-4c	CC-4d	CC-4e	CC-4f	CC-5a	CC-5b
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	X	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	X
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	X	X
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	X	--	--	--	--	X	X
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	X	--	--	--	X	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	X	X
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	X
<i>Lepomis cyanellus</i> - Green Sunfish	--	--	--	--	--	X	X
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	X	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	X	X	--	--	--	X
<i>Lepomis megalotis</i> - Longear Sunfish	X	--	--	--	--	X	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	X	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	X	X
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	CC-6a	CC-6b	CC-7	CC-8	SC-1	SP-1	SP-2
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	X	--	--	X	X	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	X	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	X	X	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	X	X	--	--	X	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	X	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	X	X	--	--	X	--	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	X	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	X	--	X	X
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	X	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	X	--	--	X	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	X	--	X	X	X	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	X	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	--	--	X	--	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	X	X	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	X	--	--	X	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	SP-3	SP-4	SP-5	CH-1	CH-2	CH-3	UT-4
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	X	--	X	--	--	--	X
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	--	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	X	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	--	--	--	--	--	--
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	X
<i>Semotilus atromaculatus</i> - Creek Chub	--	X	--	--	--	--	X
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	X	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	--	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	--
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	--	X	--	--	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	X	--	X	--	--	--	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	X	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	--	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Species - common name	Sampling station						
	UT-5	UT-6	NB-1	VB-1	UT-7	UT-8	UT-9
Petromyzontidae - lampreys							
<i>Ichthyomyzon gagei</i> - Southern Brook Lamprey	--	--	--	--	--	--	--
<i>Lampetra aepyptera</i> - Least Brook Lamprey	--	--	--	--	--	--	--
Cyprinidae - carps and minnows							
<i>Campostoma oligolepis</i> - Largescale Stoneroller	--	--	--	--	--	--	--
<i>Cyprinella callistia</i> - Alabama Shiner	--	--	--	--	--	--	--
<i>Cyprinella lutrensis</i> - Red Shiner	--	--	--	--	X	--	--
<i>Cyprinella trichroistia</i> - Tricolor Shiner	--	--	--	--	--	--	--
<i>Cyprinella venusta</i> - Blacktail Shiner	--	--	--	--	--	--	--
<i>Luxilus chrysocephalus</i> - Striped Shiner	--	--	--	--	--	--	--
<i>Lythrurus lirus</i> - Mountain Shiner	--	--	--	--	--	--	--
<i>Notemigonus crysoleucas</i> - Golden Shiner	--	X	--	--	X	X	X
<i>Notropis chrosomus</i> - Rainbow Shiner	--	--	--	--	--	--	--
<i>Notropis stilbius</i> - Silverstripe Shiner	--	--	--	--	--	--	--
<i>Notropis xaenocephalus</i> - Coosa Shiner	--	--	--	--	--	--	--
<i>Phenacobius catostomus</i> - Riffle Minnow	--	--	--	--	--	--	--
<i>Pimephales notatus</i> - Bluntnose Minnow	--	--	--	--	--	--	--
<i>Pimephales promelas</i> - Fathead Minnow	--	--	--	--	--	--	--
<i>Pimephales vigilax</i> - Bullhead Minnow	--	--	--	--	--	--	--
<i>Rhinichthys atratulus</i> - Blacknose Dace	--	--	--	--	--	--	--
<i>Semotilus atromaculatus</i> - Creek Chub	--	--	--	--	--	X	--
Catostomidae - suckers							
<i>Erimyzon oblongus</i> - Creek Chubsucker	--	--	--	--	--	--	--
<i>Hypentelium etowanum</i> - Alabama Hogsucker	--	--	--	--	--	--	--
<i>Minytrema melanops</i> - Spotted Sucker	--	--	--	--	--	--	--
<i>Moxostoma poecilurum</i> - Blacktail Redhorse	--	--	--	--	--	--	--
Ictaluridae - North American catfishes							
<i>Ameiurus melas</i> - Black Bullhead	--	--	--	--	--	--	--
<i>Ameiurus natalis</i> - Yellow Bullhead	--	--	--	--	--	--	--
<i>Ictalurus punctatus</i> - Channel Catfish	--	--	--	--	--	--	--
<i>Noturus leptacanthus</i> - Speckled Madtom	--	--	--	--	--	--	--
Esocidae - pickerels and pikes							
<i>Esox niger</i> - Chain Pickerel	--	--	--	--	--	--	--
Fundulidae - topminnows							
<i>Fundulus olivaceus</i> - Blackspotted Topminnow	--	--	--	--	--	--	--
<i>Fundulus stellifer</i> - Southern Studfish	--	--	--	--	--	--	--
Poeciliidae - livebearers							
<i>Gambusia affinis</i> - Western Mosquitofish	--	--	--	--	X	--	--
Cottidae - sculpins							
<i>Cottus carolinae</i> - Banded Sculpin	--	--	--	--	--	--	--
Centrarchidae - sunfishes							
<i>Ambloplites ariommus</i> - Shadow Bass	--	--	--	--	--	--	--
<i>Centrarchus macropterus</i> - Flier	--	--	--	--	--	--	X
<i>Lepomis auritus</i> - Redbreast Sunfish	--	--	--	--	--	--	--
<i>Lepomis cyanellus</i> - Green Sunfish	X	--	--	--	X	--	--
<i>Lepomis gulosus</i> - Warmouth	--	--	--	--	--	--	--
<i>Lepomis humilis</i> - Orangespotted Sunfish	--	--	--	--	--	--	--
<i>Lepomis macrochirus</i> - Bluegill	--	--	--	--	X	X	--
<i>Lepomis megalotis</i> - Longear Sunfish	--	--	--	--	--	--	--
<i>Lepomis microlophus</i> - Redear Sunfish	--	--	--	--	--	--	--
<i>Lepomis miniatus</i> - Redspotted Sunfish	--	--	--	--	--	--	--
<i>Micropterus coosae</i> - Redeye Bass	--	--	--	--	--	--	--
<i>Micropterus punctulatus</i> - Spotted Bass	--	--	--	--	--	--	--
<i>Micropterus salmoides</i> - Largemouth Bass	--	--	--	--	--	--	--
<i>Pomoxis annularis</i> - White Crappie	--	--	--	--	--	--	--
<i>Pomoxis nigromaculatus</i> - Black Crappie	--	--	--	--	--	--	--
centrarchid hybrid	--	--	--	--	--	--	--
Percidae - darters							
<i>Etheostoma coosae</i> - Coosa Darter	--	--	--	--	--	--	--
<i>Etheostoma ditrema</i> - Coldwater Darter	--	--	--	--	X	--	--
<i>Etheostoma jordani</i> - Greenbreast Darter	--	--	--	--	--	--	--
<i>Etheostoma stigmaeum</i> - Speckled Darter	--	--	--	--	--	--	--
<i>Etheostoma trisella</i> - Trispot Darter	--	--	--	--	--	--	--
<i>Percina kathae</i> - Mobile Logperch	--	--	--	--	--	--	--
<i>Percina nigrofasciata</i> - Blackbanded Darter	--	--	--	--	--	--	--
Sciaenidae - drums							
<i>Aplodinotus grunniens</i> - Freshwater Drum	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes							
<i>Elassoma zonatum</i> - Banded Pygmy Sunfish	--	--	--	--	--	--	--

Appendix C

Photos of Trispot Darter breeding sites in Little Canoe and Ballplay
Creek, 2010



25 February 2010
Station BP-7, unnamed tributary to Ballplay Creek at Jones Chapel Road



26 August 2010



3 February 2010
Station BP-9, unnamed tributary to Ballplay Creek at Co. Hwy. 24



26 August 2010



16 March 2010
Station BP-12, unnamed tributary to Ballplay Creek at Alford Road



26 August 2010



28 January 2009
Station BC-28, unnamed tributary-1 to Little Canoe Creek at road-side pool



26 August 2010



11 February 2009
Station BC-31, Middle Gin Branch



26 August 2010
Station BC-32, Upper Gin Branch



Male



Female

Trispot Darters collected at station BP-9, unnamed tributary to Ballplay Creek at Co. Hwy. 24

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