GEOLOGICAL SURVEY OF ALABAMA

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ECOSYSTEMS INVESTIGATIONS PROGRAM

STATUS SURVEY OF THE TRISPOT DARTER, *Etheostoma trisella*, IN ALABAMA, 2008-10

OPEN-FILE REPORT 1009

by

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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. An 18-month period of sampling from October 30, 2008 until April 1, 2010 yielded 652 Trispot Darters (285 males, 343 females, and 24 sex undetermined) at 27 of 117 sites sampled. In the Little Canoe Creek system the Trispot Darter was collected at 23 stations, we have generally designated three areas as breeding sites in the Little Canoe Creek system at this time; Gin Branch, an unnamed tributary to Little Canoe Creek on Alabama Power Company property (APCO site), and Little Canoe Creek near the St. Clair County Correctional Facility. Designation of these breeding areas in Little Canoe Creek in no way implies that the darter is restricted to these areas. We think that the opposite is true that the Trispot Darter may very well spawn throughout the system where proper breeding habitat can be found. While expanding our survey efforts during the second year of the study Trispot Darters were found at four additional sites in the Ballplay Creek system further expanding the darters known range in Alabama. Two distinct habitat types were recognized for this species; breeding and non-breeding. Non-breeding habitat occured in the deeper, larger portions of Little Canoe and Ballplay Creeks, while breeding habitat consisted of small, 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 in breeding habitat from February through March. By early April, breeding sites were uninhabited and only a few spent individuals were collected.

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 survey 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 sites sampled 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; Bryant and others, 1979; Etnier, 1970; 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 (1981), 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 (1981) 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 one 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, while at the same time refining our knowledge of potential breeding areas in its Alabama range 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 and Mr. Charles Beauchamp kindly allowed access to Little Canoe Creek on their properties and we appreciate this courtesy on their part.

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 sites 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, Permeter, Big Canoe, Beaver, and Shoal Creeks. A few tributaries to Terrapin Creek were sampled including Shaver Branch, Little Creek, Frog Creek, and Dry Creek.

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

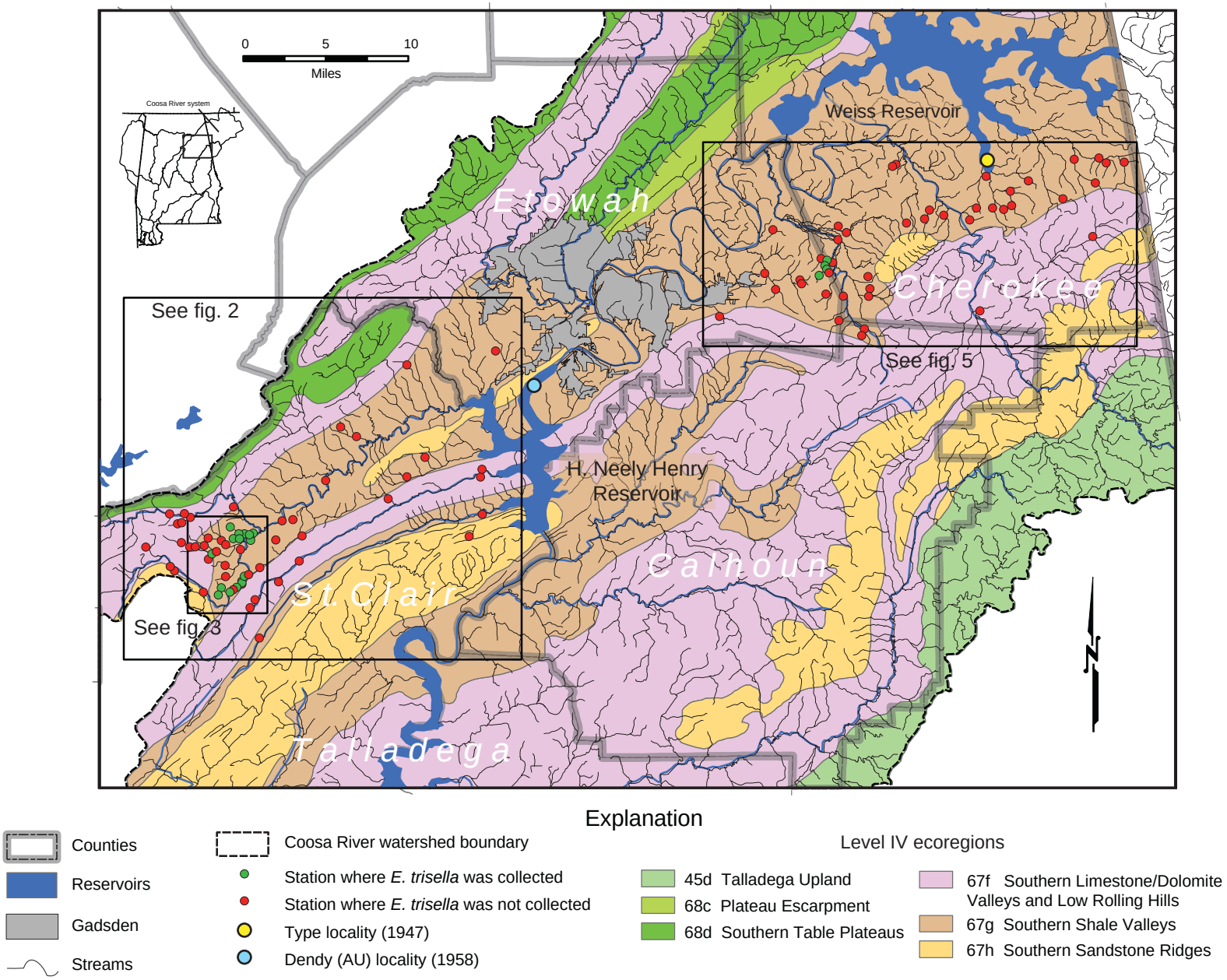


Figure 1. Sampling stations for the Trispot Darter in Alabama, 2008-10.

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 Sandstone Ridges ecoregion ranges in elevation from 400 to 2,030 feet above sea level and is characterized by high, steep ridges with broader more extensive ridges in the southern part of the ecoregion. Streams have a high to moderate gradient with a substrate composed primarily of rock, cobble and gravel. Land cover is mostly mixed and deciduous forest with pasture and cropland in the lower elevations. Other land cover and land use types are rural residential, urban, and industrial.

In the Southern Limestone/Dolomite Valleys and Low Rolling Hills ecoregion (67f), topography is defined by rolling valleys with some low, rounded hills and knobs that range in elevation from 300 to 1,300 feet. Streams have moderate to low gradients with a substrate of bedrock, cobble, gravel, and sandy substrates. Land cover is similar to that found in the Southern Sandstone Ridges with oak-hickory and oak-pine forests, pasture, intensive agriculture, urban, and industrial. However, along the Coosa River floodplain, the biota is more similar to Coastal Plain regions due to the valley and riverine connections to ecoregion 65 in Alabama (Griffith and others, 2001).

The Southern Shale Valleys (67g) ecoregion ranges in elevation from 400 to 1,100 feet above sea level and is described as undulating, rolling valleys consisting primarily of shale. Streams gradients are moderate to low gradients and cut through clayey sediments and shaly limestone. Land cover is primarily pasture that has reverted to mixed forest and brush on steep slopes while soybeans, hayfields, and corn comprise 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 April 2010 which corresponds to the seasonal migration and spawning period. Emphasis was given to sampling in the Big Canoe and Little Canoe Creek systems in 2008-09 since that was the location of the initial rediscovery of the Trispot Darter in October 2008. Streams south of Weiss Lake were targeted in 2009-10 because Cowans Creek, a tributary to Weiss Lake, is the type locality for the Trispot Darter.

It is known that members of the subgenus *Ozarka* have two distinct habitats, breeding and non-breeding, and that individuals will migrate short distances from the non-breeding stream habitat to shallow off-channel breeding habitat. Individuals captured in the main channel of Little Canoe Creek were surmised to be en 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 this discovery and are housed at the GSA and the UAIC.

Caudle fin clips of approximately 77 individuals were taken for genetic analysis 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 fish was then returned to the stream.

RESULTS AND DISCUSSION

A total of 165 collections from 117 stations in nine Coosa River tributary systems in Alabama were made from October 30, 2008 through April 1, 2010 resulting in the capture of 652 Trispot Darters (fig. 1, table 1, appendix A). During the first year of study 36 collections were made between October 30, 2008 and April 1 2009 at 21 stations with 209 Trispot Darters found (88 males, 111 females, and 10 sex undetermined). In the following year of study 129 collections were made at 103 stations from November 5, 2009 until April 1, 2010. There were 443 individuals captured and of those 197 were males, 232 were females, and 14 sex undetermined (fishes taken with Trispot Darters at all stations sampled are listed in Appendix B).

Trispot darters were found at 22 of 71 stations sampled in western tributaries to the Coosa River (fig. 2) with all occurrences in Little Canoe Creek near Springville. Two areas in Little Canoe Creek were delineated 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 two 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 65 darters were found in the Correctional Facility area. One dead female was discovered in a headwater branch of an unnamed tributary to Little Canoe Creek (station BC-28) on APCO property which may indicate that this area is also a breeding site for the species.

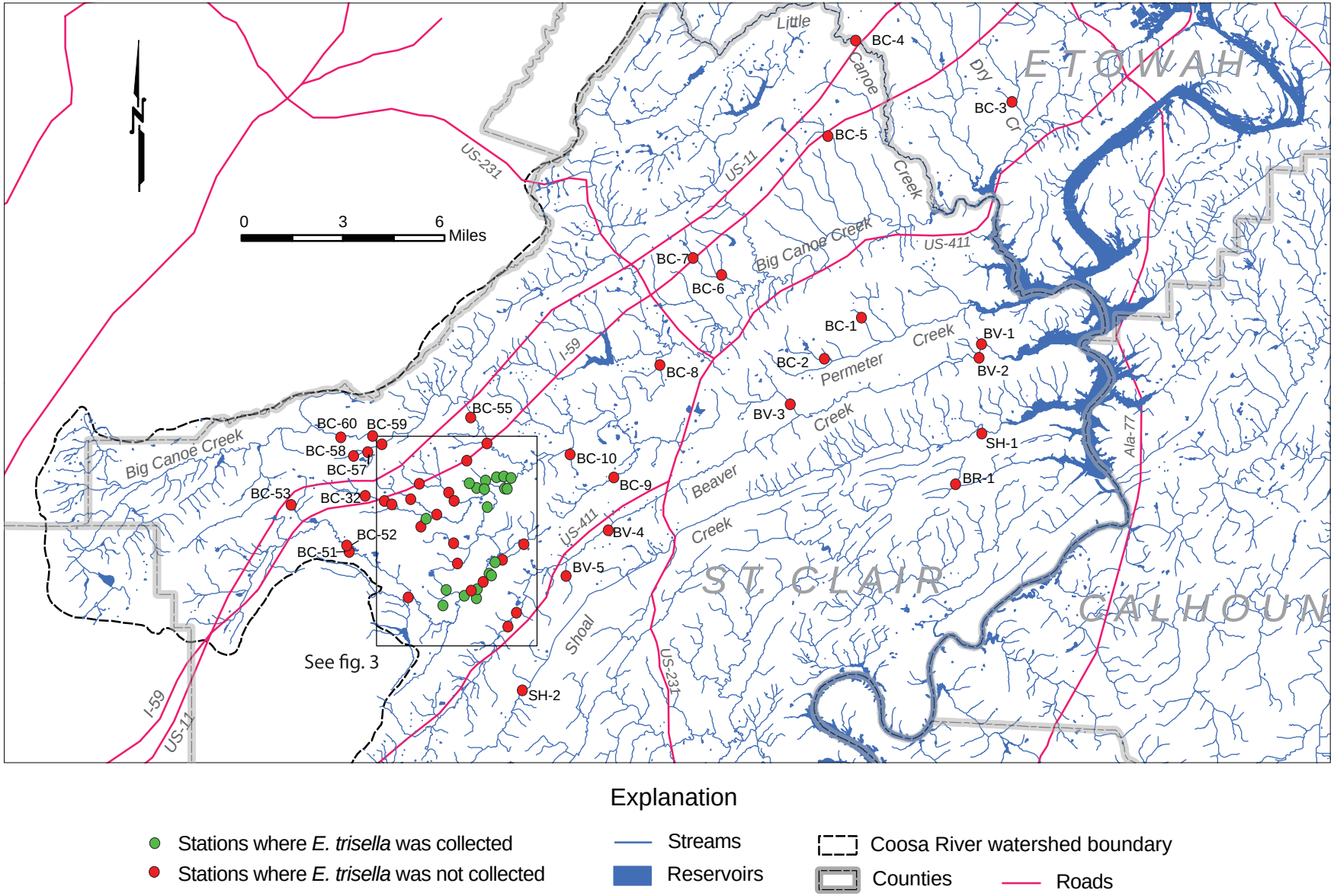
There were two sites in particular in Little Canoe Creek supported healthy breeding populations of the Trispot Darter. One was the Gin Branch complex which includes Gin Branch proper and an unnamed tributary (unnamed tributary-1) that darters use to access a wetland on Gin Branch (stations BC-11 to BC-18 and BC-20) 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-21 to BC-23) (figs. 4 and 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.

Table 1. Summary survey information for the Trispot Darter in Alabama, 2008–10.

	Oct 2008 - Apr 2009	Nov 2009 - Mar 2010	Totals
Stations sampled [1]	21	103	117
Total collections	36	129	165
Etheostoma trisella			
Males	88 (44.2)[2]	197 (45.9)	285 (45.4)
Females	111 (55.8)	232 (54.1)	343 (54.6)
Sex undetermined	10	14	24
Total	209	443	652

[1] - some stations were sampled both years

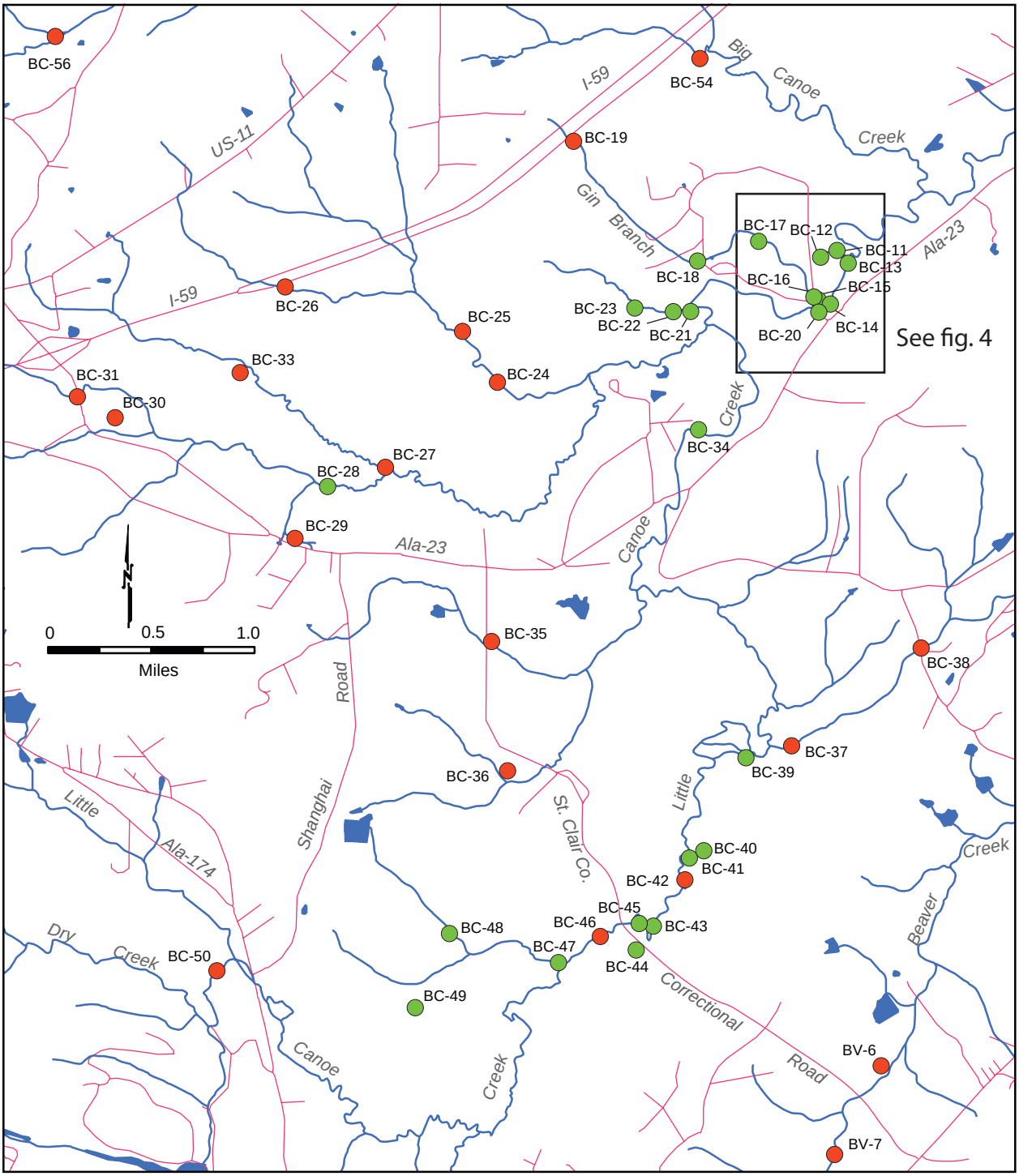
[2] - (percent)



Explanation

- Stations where *E. trisella* was collected
- Stations where *E. trisella* was not collected
- Streams
- Reservoirs
- Coosa River watershed boundary
- Counties
- Roads

Figure 2. Sampling stations 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. Details of sampling stations in the western section of the study area in Alabama.

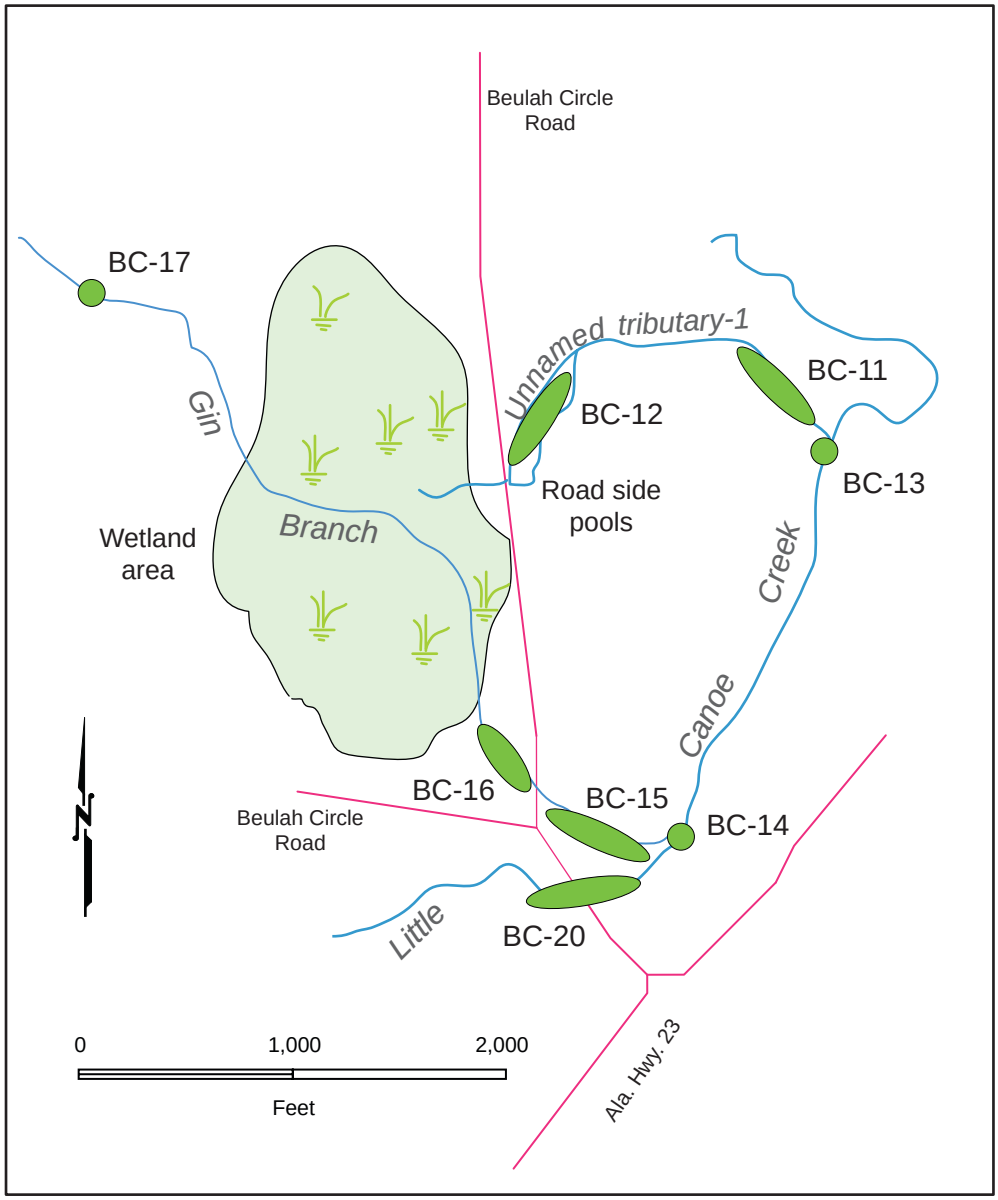
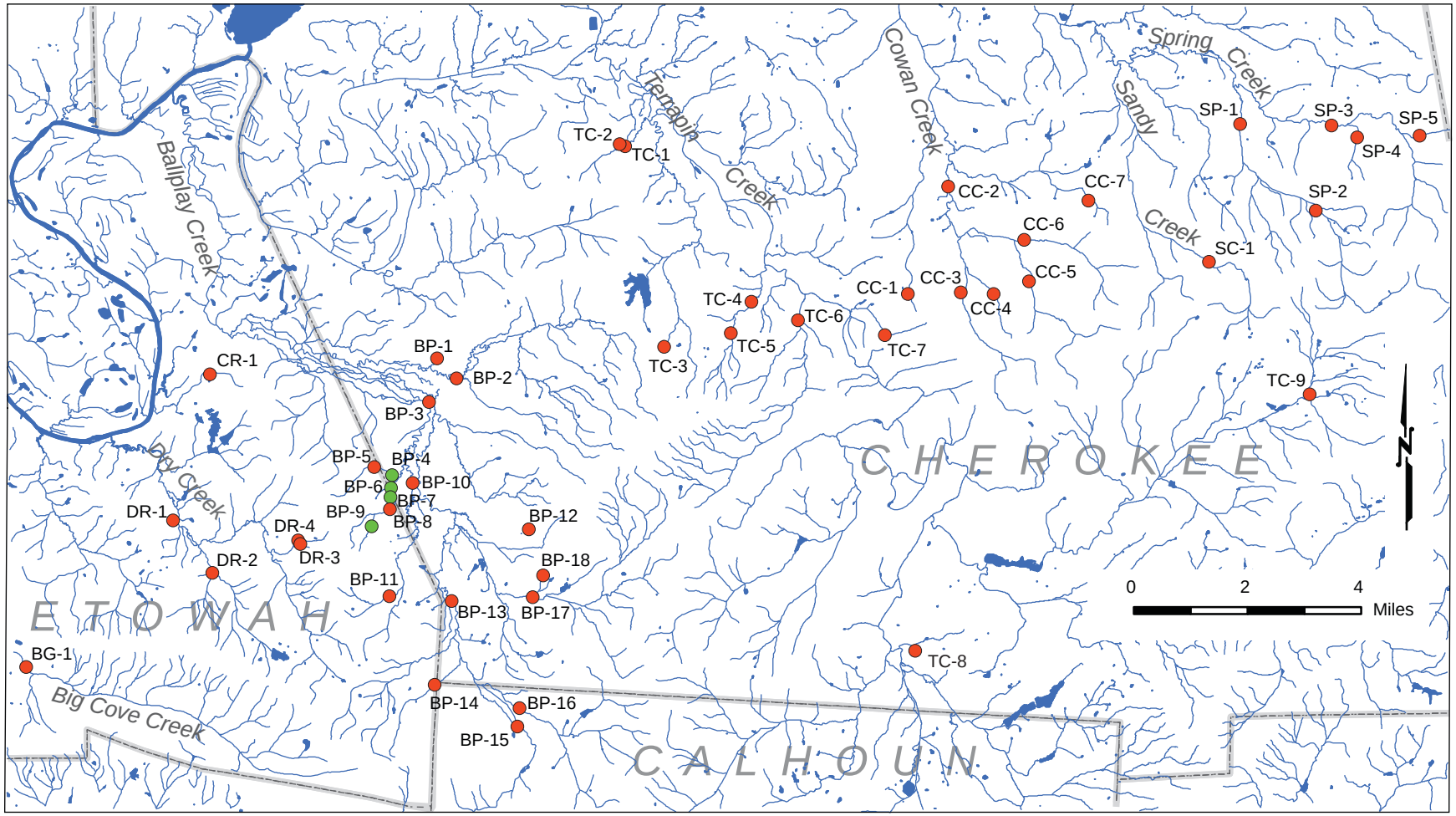


Figure 4. Detail of sampling stations in the Gin Branch-Little Canoe Creek area.



Explanation

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

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

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 (1981) 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. Examination of the two main breeding sites in Little Canoe Creek, stations BC-11 and BC-21, on August 26, 2010 found them both to be dry (appendix C).

A new breeding area was discovered in the Ballplay Creek system during the second year of study—stations BP-4, BP-6, BP-7, and BP-9 (figure 5). Out of 46 stations sampled in eastern tributaries to the Coosa River during the second year of study only these four stations supported a breeding population of the Trispot Darter. Ballplay Creek at these sites was similar in substrate composition to the Little Canoe Creek streams and was 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).

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. As previously mentioned, 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 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. Since migration corridors between nonbreeding and breeding habitat are absolutely necessary, any 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 (1981) 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. A factor affecting recruitment generally not considered is the effect of prolonged drought. Trispot darters rely on seasonal wet periods with sustained high 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, could 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 steams. One proven way to help control the rate of erosion is by selected harvesting of timber and implementation of 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 where Trispot Darters occurred originated in areas clear cut about five years ago. Based on this observation we can conclude that maintaining a wide riparian zone near Little Canoe Creek and establishing a healthy streamside management zone (SMZ) around the smaller intermittent tributaries will help conserve darter populations.

Another strategy would be the purchase or establishment of a conservation easement for land around a breeding site. 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.

RECOMMENDATIONS

This study has answered questions concerning the distribution of the species in Alabama, described breeding habitat, document spawning conditions at breeding sites,

and determined qualitatively the seasonal movements of Trispot Darters. From this data it is concluded 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, complete additional survey work to further define the Trispot Darter range in Alabama, particularly in the Weiss Lake region (this will be accomplished in 2011) and detailed surveys in the Little Canoe and Ballplay Creek systems. Second, 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) and the Alabama Clean Water Partnership (ACWP). The SHU process has begun in Big Canoe Creek and will increase in 2011 to include 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 will then be integrated with community and county development plans, the desires of developers and watershed conservation groups in the watershed, with public utilities, and with land owners to begin a Big Canoe Creek watershed stakeholder group for improving water quality.

The Trispot Darter was not assigned a priority status designation in the latest State Wildlife Plan (Mirarchi, 2004) because it was considered extirpated due to its absence in Alabama collections for over 50 years. Rediscovery of the Trispot Darter leads to the need to assign a priority status designation. We recommend that it be considered a species of highest conservation concern (Priority 1—P1). This ranking is suggested based on its rarity and very restricted distribution, unknown population numbers and trends, very specialized spawning habitat needs, and vulnerability of both its breeding and nonbreeding habitat to human-caused factors.

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Appendix A

List of sampling stations for the Trispot Darter in Alabama, 2008-10

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of *E. trisella* collected	Notes
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 appx. 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.
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.
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 appx. 500 ft. upstream of bridge. Braided channel, thick mud/silt substrate mixed with detritus.
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 last rain event and the water appeared to be tanic/anaerobic.
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 tribs but still no results.
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 appropiate breeding habitat for this time of year.
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 appx. 1,000 ft.
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/shaly.
BV-6	Beaver Creek at St. Clair Co Correctional Facility Road	St. Clair	33.7273	86.3576	sec. 17, T. 15 S., R. 3E.	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.
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.
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.
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 appx. 300 ft. downstream of bridge.
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 appx. 200 ft. Tributary was slow and murky. Substrate and flow were unsuitable.
BC-4	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.
BC-5	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 appx. 500 ft. Stream seemed to be too large.
BC-6	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.
BC-7	Unnamed tributary to Big Canoe Creek at I-59	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.
BC-8	Big Canoe Creek at Co. Hwy. 36	St. Clair	33.8327	86.2835	sec. 12, T. 14 S., R. 3 E.	30-Oct-10	0840-1045	0	Sampled downstream of bridge appx. 600 feet.
BC-9	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.

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of *E. trisella* collected	Notes
BC-10	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.
BC-11	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	0945-1400	9	7 male and 2 female trispot darters taken from mouth of unnamed tributary upstream to road side pools.
BC-11	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.	2-Feb-10	0945-1400	0	
BC-12a	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.
BC-12b	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 trispots taken about 300 feet downstream of culvert.
BC-12c	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	
BC-12d	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 appx. 0.5 feet deep and they were all congregated over this portion of the stream. 7 were male and 25 individuals were female.
BC-12e	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.
BC-13	Little Canoe Creek approx. 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.
BC-14	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.
BC-15a	Gin Branch approximately 250 feet 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.
BC-15b	Gin Branch from mouth to approximately 300 feet upstream of Beulah Circle Road East Loop	St. Clair	33.7809	86.3624	sec. 30, T. 14 S., R. 3 E.	28-Jan-09	0945-1400	3	3 female trispots taken in eroded plunge pool near bridge culvert.
BC-15c	Gin Branch approximately 250 feet upstream of mouth	St. Clair	33.7801	86.3620	sec. 30, T. 14 S., R. 3 E.	17-Dec-09	1250-1305	2	Captured one male and one female trispot.
BC-16a	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.
BC-16b	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.
BC-15, 16, 17	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.

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of *E. trisella* collected	Notes
BC-17a	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.
BC-17b	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 to early for trispots to be found in this ephemeral stream.
BC-18a	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.
BC-18b	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.
BC-18c	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 very extended and running eggs with pressure.
BC-18d	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.
BC-18e	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 were 43mm, 33mm, 36mm. Captured 2 males with a SL measurement of 35mm 34mm.
BC-19	Unnamed tributary to Gin Branch at I-59	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.
BC-20a	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 appx. 150 ft. upstream of bridge.
BC-20b	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 *Justicia* /sand/small gravel shoal 800 feet upstream of bridge.
BC-20c	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.
BC-20d	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 *Justicia* shoal.
BC-20e	Little Canoe Creek at Beulah Circle Road	St. Clair	33.7801	86.3626	sec. 30, T. 14 S., R. 3 E.	5-Nov-09	0900-1150	6	2 females at downstream culvert plunge pool of Gin Branch; 1 female was taken appx. 150 ft. upstream in Gin Branch from mouth; 1male 20 yards upstream of Gin Branch's mouth in Little Canoe Creek. 1 male was in color at Little Canoe Creek upstream of bridge at *Justicia.* A female was taken in the flowing reach 1' to 2' deep over leaves.
BC-20f	Little Canoe Creek at Beulah Circle Road	St. Clair	33.7801	86.3626	sec. 30, T. 14 S., R. 3 E.	1-Dec-09	0830-1020	8	Worked upstream of bridge at *Justicia* 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.
BC-21a	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 tribs.

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of *E. trisella* collected	Notes
BC-21b	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.
BC-21c	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 trispots 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.
BC-22a	Unamed 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. Trispots were found in leaf packs on top of gravel/cobble substrate. All of the trispots were collected were generally in mid-channel with low flow and less than a foot of water. SL measurements of the female trispots are as follows: 41mm; 46mm; 37mm; 40mm; 41mm; 50mm; 40mm; and 35mm. The SL measurements for the males are as follows: 48mm; 38mm; 44mm; 32mm; 38mm; 35mm; 37mm; 40 mm; 34mm; 35mm;37mm; and 35mm. The 2 unidentified sexes measured 28mm SL and 31mm SL.
BC-22b	Unamed 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 trispots were collected. The 4 females SL measurements are as follows: 45mm; 45mm; 45mm; and 50mm. The 8 males SL measurements are as follows: 41mm; 42mm; 44mm; 43mm; 43mm; 46mm; 46mm; 45mm. 1 trispot was not sexed but its SL measurement was 43. 1 female was slightly swollen with extended genital papilla showing. 10 additional indviduals were seen but not collected.
BC-22c	Unamed 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 trispots were collected. The females SL measurements are as follows: 42mm; 50mm; 40mm; 40mm; 35mm; 39mm; 34mm; and 35mm. The males SL measurements are as follows: 37mm; 36mm; 44mm; 36mm; 37mm; 33mm; 35mm; 38mm; 35mm; 36mm; 32mm; 37mm; 33mm.
BC-22d	Unamed 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 trispots 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 trispots that were collected could not be sexed.
BC-23a	Unnamed tributary-2 from mouth to approximately 200 feet 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.
BC-23b	Unnamed tributary-2 from mouth to approximately 200 feet 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.

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of *E. trisella* collected	Notes
BC-23c	Unnamed tributary-2 from mouth to approximately 200 feet 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.
BC-24	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-Feb-10	1010-1100	0	
BC-25	Unnamed tributary-3 to Little Canoe Creek	St. Clair	33.7789	86.3924	sec. 36, T. 14 S., R. 2 E.	12-Feb-09	1300-1400	0	Sampled from APCO dirt road upstream approximately 2,900 feet. Clear, rocky, sandy stream, poor trispot darter habitat.
BC-26	Unamed 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 trispots.
BC-27	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	
BC-28	Unnamed tributary approx. 1,200 feet 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 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.
BC-29	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.
BC-30	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 trispot habitat but could be too far away from main channel of Little Canoe Creek.
BC-31	Unnamed tributaryutary 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.
BC-32	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 downcut channel with some gravel. Overnight rains raised creek up to 0.5 ft. above normal flow.
BC-33	Unnamed tributaryutary 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, sampled to early in the year for trispots to have moved upstream this far.
BC-34	Little Canoe Creek at Beauchamp Property approx. 2,100 feet 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.
BC-35	Unnamed tributary to Litte 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.
BC-36a	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 about 1,500 feet beginning at park area. Clear, rocky, sandy stream not good trispot darter habitat.
BC-36b	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 feet downstream of county road. Spring-like habitat, no trispot darters.
BC-37	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.
BC-38	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 appx. 500 ft. downstream of road crossing and appx. 600 ft upstream of road crossing.

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of *E. trisella* collected	Notes
BC-39	Unnamed tributary to Little Canoe Creek downtream 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 trispots in wooded, flowing tributary with the habitat resembling that of station numbers BC-40 and BC-41. Habitat was described as slow-sandy pools with snags and small gravel riffles. Males SL are as follows: 35 mm; 39mm; 33mm, and 36 mm. Females SL are as follows: 43mm; 33mm; 43mm; 40mm; 32mm; 36mm; 36mm; 43mm, and 33mm.
BC-40	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 trispots in a wooded trib 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 trispot was not netted.
BC-41	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, high gradient than normal channel. SL of male are as follows: 38mm; 39mm; 36mm; 33mm; 34mm; 35mm; 40mm; 49mm; 44mm. The SL of female are as follows: 36mm; 39mm; 40mm; 35mm; 32mm; 39mm; 29mm; 38mm; 46mm. Missed 2 males that were not measured.
BC-42	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	
BC-43	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 trispots consisting of 2 males and 3 females. SL of the males are 34 and 32. The SL of the females are 33, 36, and 36. All were exhibiting secondary sexual characteristics.
BC-44a	Little Canoe Creek overflow pools at St. Clair Correctional Road	St. Clair	33.7367	86.3799	sec. 12, T. 15 S., R. 2 E.	19-Feb-09	1330-1400	1	1 male trispot darter found in overflow pool
BC-44b	Little Canoe Creek overflow pools at St. Clair Correctional Road	St. Clair	33.7367	86.3799	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.
BC-44c	Little Canoe Creek overflow pools at St. Clair Correctional Road	St. Clair	33.7367	86.3799	sec. 12, T. 15 S., R. 2 E.	1-Apr-09	1230-1250	0	No trispot darters
BC-44d	Little Canoe Creek overflow pools at St. Clair Correctional Road	St. Clair	33.7367	86.3799	sec. 12, T. 15 S., R. 2 E.	2-Dec-09	1200-1215	0	Sampled breeding habitat upstream of bridge at 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.
BC-44e	Unnamed tributary to Little Canoe Creek draining overflow pools near St. Clair Correctional Road	St. Clair	33.7362	86.3810	sec. 12, T. 15 S., R. 2 E.	17-Dec-09	1330-1445	1	Caught 1 large female at mouth next to some leaf litter downstream of breeding site.
BC-45a	Little Canoe Creek at shoal 500 feet downstream of St. Clair Correctional Road	St. Clair	33.7373	86.3777	sec. 12, T. 15 S., R. 2 E.	5-Nov-09	1230-1515	3	Captured 3 trispot darters downstream of old bridge at prison site. Sampled to coordinates 33.741° N 86.3747° W. Captured 1 male and 1 large female in small *Justicia* shoal downstream of old bridge. 1 small female (possibly 2009 hatchling) captured in deep flowing run near mouth of prison breeding side channel appx. 100 ft. upstream of mouth.
BC-45b	Little Canoe Creek at shoal 500 feet downstream of St. Clair Correctional Road	St. Clair	33.7373	86.3777	sec. 12, T. 15 S., R. 2 E.	17-Dec-09	1340-1445	3	Captured three female trispots in shoal around dead *Justicia* stems.
BC-46	Little Canoe Creek at St. Clair Correctional Road	St. Clair	33.7367	86.3799	sec. 12, T. 15 S., R. 2 E.	12-Nov-08	1330-1400	0	Worked upstream appx. 2,000 feet. Majority of stream was pool habitat. No trispot darters.

Site	Location	County	Lat (°N)	Lon (°W)	Section, township, range	Date	Time	Number of *E. trisella* collected	Notes
BC-47	Unnamed tributary to Little Canoe Creek (Wayne Keith property)	St. Clair	33.7345	86.3846	sec. 13, T. 15 S., R. 2 E.	8-Feb-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.
BC-48	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.	28-Jan-09	0830-0925	2	Caught 1 female trispot that had a SL measurement of 36mm and 1 male trispot that measured 41mm. Both were collected in narrow, shallow headwater trib that had sandy substrate and snags.
BC-49	Unnamed tributary to Little Canoe 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 measurments are as follows: 45mm; 33mm; 38mm; 31mm. 5 were females and their SL measurements are as follows: 39mm; 49mm; 37mm; 36mm; 36mm. The 36mm trispot was running eggs.
BC-50	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 bedload, high gradient stream.
BC-51	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.
BC-52	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 trib west of Mr. McLaughlin property that had a high gradient. Not good trispot habitat.
BC-53	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.
BC-54	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.
BC-55	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 Gearld Tucker's property, which revealed poor trispot habitat. Stream bank was entrenched.
BC-56	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	
BC-57	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.
BC-58	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.
BC-59	Unnamed tributary-3 to Big Canoe Creek at APCO Canoe Creek Farms	St. Clair	33.8035	86.4306	sec. 21, T. 14 S., R. 2 E.	23-Feb-10	1120-1140	0	
BC-60	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 appx. 120 ft. Very limited habitat. Stream appears to be too high in gradient and flow to serve as breeding habitat. The only fish species seen was *C. oligolepis* and *C. carolinea* .
BG-1	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.
DR-1	Unamed tributary to 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.
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.
DR-3	Unnamed tributary to Dry Creek at Youngs Chapel Road	Etowah	34.0050	85.7797	sec. 10, T. 12 S., R. 8 E.	1-Apr-10	1315-1355	0	
DR-4a	Unnamed tributary to Dry Creek at Youngs Chapel Road	Etowah	34.0054	85.7798	sec. 10, T. 12 S., R. 8 E.	10-Feb-10	1410-1425	0	Habitat looked good. Sampled appx. 1155 ft. downstream of road crossing.

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DR-4b	Unnamed tributary to Dry Creek at Youngs Chapel Rd.	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.
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.
BP-1	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 to turbid too see fish. Need to sample again.
BP-1	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.
BP-2	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
BP-3	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 because the stream was deep, large and because of beaver dams.
BP-4a	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.
BP-4b	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 unamed tributary flowing from Rock Ford road and unamed trib flowing from Jones Chapel Road, but the channel was too deep and turbid to notice darters on the bottom. We sampled appx. 250 ft. of the tributary flowing from Rock 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.
BP-4c	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	0900-1005	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.
BP-5a	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 appx. 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.
BP-5b	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.
BP-5c	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.
BP-6a	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	20	There were 20 trispots collected. All trispots were caputred within appx. 300 ft. stretch of the stream. Male SL: 48mm, 42mm, 43mm, 38mm, and 39mm trispot. Female SL: 45mm, 47mm, 36mm, 49mm, and 44mm. Then Bernie Kuhajda and Brook Fluker performed a 2nd collection appx. 120 ft. below initial starting point and captured 12 more trispots. Male SL: 35mm, 42mm, one male missed. Female SL: 41mm, 41mm, 44mm, 44mm, 41mm, 52mm, and 46mm.
BP-6b	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 female (50mm SL) that was a recapture from a previous sample (clipped caudal fin).
BP-6c	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	

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BP-7a	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	11	Captured 11 trispot darters and missed 1 in an ephemeral stream downstream of road crossing. Did not capture and release any above 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 specimens are as follows in milimeters: 50 female, 39 male, 47 female, 46 female, 41 male, 49 female, 46 female, 51 male, 45 female, 53 female, and 38 female. Caught all of these darters between a stretch of appx. 450 ft. of stream.
BP-7b	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	1110-1345	7	Released 7 trispots. 2 were male and 5 were female. Their SL is as follows: female 51mm, female 44mm, male 40mm, female 54mm, male 42mm, female 43mm, and one trispot escaped. Tributary was flowing more than previous sample (3 Feb 2010) due to heavy rains over the weekend.
BP-7c	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 a SL measurement of 43mm. Steve Rider kept specimen for his records.
BP-8	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	
BP-9a	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 of males are as follows: 42mm, 50mm, 44mm, 42mm. The SL of the lone female was 44mm. Sampled appx. 300 ft. of stream length.
BP-9b	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, 3 females and 2 males. 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.
BP-10a	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 ephermal 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 to move up the trib. But habitat looked great-resembled slackwater darter breeding habitat.
BP-10b	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 appx. 1000 ft. downstream of bridge to where an overflow channel was 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.
BP-11	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.

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BP-12	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.
BP-13	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 appx. 600 ft. upstream of bridge until the creek's habitat transitioned into beaver swamp. Then walked appx. 400 ft. downstream of bridge and sampled a small overflow area, which yielded no results.
BP-14	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.
BP-15	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 appx. 450 ft upstream of bridge.
BP-16	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 good breeding habitat.
BP-17	Unnamed tributary to 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 trib that look liked great trispot habitat but only found coldwater darters.
BP-18	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 tribs flowing into creek but it was not the silt/clay/detritus habitat that resembles trispot breeding habitat.
TC-1	Unnamed tributary to Terrapin Creek at Farmer's Service Road near Co. Hwy. 19	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.
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	
TC-3	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	Trib was up due to heavy rainfall the night before. Not good trispot breeding habitat.
TC-4	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 appx. 200 ft. below bridge and 100 ft. above bridge. Poor habitat.
TC-5	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.
TC-6	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 trib on right bank looking upstream. Sampled tributary appx. 100ft.
TC-7	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.
TC-8	Unnamed tributary to Ballplay Creek at intersection of Estes and Fowler Hwy's	Cherokee	33.9752	85.5912	sec. 21, T. 12 S., R. 10 E.	4-Feb-10	0835-0900	0	Sampled appx. 650 ft of two small flowing tributaries, but it looked like poor trispot habitat.
TC-9	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 habitat due to high gradient, cobble/bedrock substrate as was tributary. Both had extensive algal coverage.
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	Moderatly heavy silt/algae substrate. Poor trispot habitat.
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 habitat.

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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 appx. 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.
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 habitat-beaver dams were present.
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 substrate.
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	
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 appx. 850 ft. of stream and the dominant species was bluegill. Clear cut upstream of road crossing.
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 habitat that had few fishes.
CC-5a	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 substate mixture.
CC-5b	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.
CC-6	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 habitat because of fine gravel/sand substrate. Stream and well developed riffle/run sequence.
CC-7	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.
SC-1a	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.
SP-1b	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.
SP-2	Forney Branch at U.S. Highway 411	Cherokee	34.0865	85.4664	sec. 15, T. 11 S., R. 11 E.	28-Jan-10	0925-0945	0	Poor trispot habitat-beaver dams were present. Heavy cow usage and sediment load.
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.	10-Feb-10	1145-1215	0	Sampled small ditches and overflow pools upstream of bridge.
SP-4	Unnamed tributary to Spring Creek at Co. Hwy. 159	Cherokee	34.1047	85.4537	sec. 2, T. 11 S., R. 11 E.	28-Jan-10	1050-1120	0	Nice looking habitat but landowner has recently channelized portion of stream.
SP-5	Unnamed tributary to Spring Creek at Co. Hwy. 101	Cherokee	34.1048	85.4344	sec. 1, T. 11 S., R. 11 E.	10-Feb-10	1010-1035	0	Habitat looked good, but had heavy silt deposits throughout. May have been too far upstream.

Appendix B

List of fish species collected at stations sampled for the Trispot Darter in Alabama, 2008-10

Family	*Species* - common name	Station													
		BR-1	SH-1	SH-2	BV-1	BV-2	BV-3	BV-4	BV-5	BV-6	BV-7	BC-1	BC-2	BC-3	BC-4
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	X	X	X	X	X	X	X	X	--	X	X	--	--	--
	Cyprinella callistia - Alabama Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	X	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella venusta - Blacktail Shiner	X	X	--	X	--	--	--	--	--	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	X	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	X	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	X	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	X	X	X	--	--	--	--	X	--	--	--	--	--	--
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	X	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	X	--	X	--	X	--	X	--	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	X	--	--	X	--	X	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	X	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BR-1	SH-1	SH-2	BV-1	BV-2	BV-3	BV-4	BV-5	BV-6	BV-7	BC-1	BC-2	BC-3	BC-4
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	--	X	X	X	--	X	--	--	X	--	--	X	--
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	--	X	--	X	--	--	--	--	--	--	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	X	--	--	--	X	--	X	--	--	X	X	--	--	--
	Lepomis cyanellus - Green Sunfish	X	X	X	X	X	X	X	--	--	X	X	--	X	--
	Lepomis gulosus - Warmouth	--	--	--	--	--	--	--	--	--	X	X	--	X	--
	Lepomis macrochirus - Bluegill	X	--	X	X	X	--	X	--	--	X	X	X	X	--
	Lepomis megalotis - Longear Sunfish	--	--	--	X	--	--	--	--	--	--	X	X	--	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	X	--	--	--	--	X	X	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	--	--	--	--	--	--	--	X	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	X	--	--	--	--	--	--	--	X	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	--	--	--	--	X	X	--	--	--	--	--	X
	Etheostoma ditrema - Coldwater Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina kathae - Mobile Logperch	X	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	X	--	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	X	X	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-5	BC-6	BC-7	BC-8	BC-9	BC-10	BC-11a	BC-11b	BC-12a	BC-12b	BC-12c	BC-12d	BC-12e	BC-13
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	X	X	--	X	--	X	--	--	X	--	X	X	--	--
	Cyprinella callistia - Alabama Shiner	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	--	--	--	--	--	--	--	--	X	--	--
	Cyprinella venusta - Blacktail Shiner	--	X	X	X	--	--	--	--	X	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	X	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	X	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	X	--	--	--	--	--	--	--	X	--	--	--	--	--
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--	X	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	X	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-5	BC-6	BC-7	BC-8	BC-9	BC-10	BC-11a	BC-11b	BC-12a	BC-12b	BC-12c	BC-12d	BC-12e	BC-13
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	X	X	--	--	--	--	--	--	X	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	X	--	X	X	--	--	--	X	--	--	X	--	--
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	--	X	--	X	--	--	--	--	X	--	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	X	--	--	X	X	--	--	--	--	--	--	X	--	--
	Lepomis cyanellus - Green Sunfish	X	X	X	--	--	X	--	--	--	--	--	X	--	--
	Lepomis gulosus - Warmouth	X	X	--	--	--	--	--	--	X	--	--	X	--	--
	Lepomis macrochirus - Bluegill	X	X	X	X	X	--	--	--	X	--	X	X	--	--
	Lepomis megalotis - Longear Sunfish	X	--	X	X	X	--	--	--	X	--	--	X	--	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	X	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	X	X	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	X	--	X	--	X	--	--	--	--	--	X	--	--	--
	Pomoxis annularis - White Crappie	--	X	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	--	X	X	--	--	--	X	--	--	--	--	--
	Etheostoma ditrema - Coldwater Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	--	--	--	--	--	--	9	--	13	13	--	32	21	1
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	X	--	--	--	--	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-14	BC-15	BC-15	BC-15	BC-16a	BC-16b	BC-17a	BC-17b	BC-17c	BC-18a	BC-18b	BC-18c	BC-18d	BC-18e
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	--	--	--	--	--	X	X	--	--	--	x	--	--	X
	Cyprinella callistia - Alabama Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	--	X	--	--	--	--	--	--	--	--	--
	Cyprinella venusta - Blacktail Shiner	--	--	--	--	--	--	X	--	--	--	--	--	--	X
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	--	--	--	--	--	--	X	--	--	--	--	--	--	X
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-14	BC-15	BC-15	BC-15	BC-16a	BC-16b	BC-17a	BC-17b	BC-17c	BC-18a	BC-18b	BC-18c	BC-18d	BC-18e
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	X	X	--	--	--	--	--	--	--	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	--	--	--	--	--	--	--	--	--	--	--	--	X
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	--	X	X	X	--	--	--	--	--	--	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis cyanellus - Green Sunfish	--	--	--	--	X	X	--	--	--	--	x	--	--	--
	Lepomis gulosus - Warmouth	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis macrochirus - Bluegill	--	--	--	X	X	--	X	--	--	--	--	--	--	--
	Lepomis megalotis - Longear Sunfish	--	--	--	X	--	--	X	--	--	--	--	--	--	X
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma ditrema - Coldwater Darter	--	--	--	X	X	--	--	--	--	--	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	1	2	3	2	52	4	54	3	--	18	2	4	--	5
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-19	BC-20a	BC-20b	BC-20c	BC-20d	BC-20e	BC-20f	BC-21a	BC-21b	BC-21c	BC-22a	BC-22b	BC-22c	BC-22d
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	--	X	X	X	X	--	X	--	X	--	X	X	X	X
	Cyprinella callistia - Alabama Shiner	--	X	X	X	--	--	--	--	--	--	--	--	X	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	X	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	X	X	X	X	--	X	--	--	--	--	--	--	--
	Cyprinella venusta - Blacktail Shiner	--	X	X	X	--	--	--	--	--	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	X	X	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	X	X	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	X	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	X	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	--	--	--	--	X	--	--	--	X	--	--	X	X	--
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	X	X	--	X	--	--	X	--	--	--	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	X	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	X	X	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-19	BC-20a	BC-20b	BC-20c	BC-20d	BC-20e	BC-20f	BC-21a	BC-21b	BC-21c	BC-22a	BC-22b	BC-22c	BC-22d
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	X	X	X	X	--	X	--	--	--	--	X	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	X	X	X	X	--	--	--	--	--	X	X	X	X
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	X	X	X	X	--	X	--	--	--	--	X	--	X
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	X	--	X	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	X	X	X	--	--	X	--	--	--	--	--	--	--
	Lepomis cyanellus - Green Sunfish	--	--	--	X	X	--	--	--	X	--	X	--	X	--
	Lepomis gulosus - Warmouth	--	X	--	--	--	--	--	--	--	--	--	X	--	--
	Lepomis macrochirus - Bluegill	--	X	X	X	X	--	X	X	X	--	X	X	X	X
	Lepomis megalotis - Longear Sunfish	--	X	X	X	X	--	--	--	--	--	--	X	X	X
	Lepomis microlophus - Redear Sunfish	--	X	--	--	--	--	X	--	--	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	--	X	X	--	--	--	--	--	--	--	--	--	--	--
	Micropterus coosae - Redeye Bass	--	X	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	X	--	X	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	X	--	--	--	--	--	--	--	--	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	X	X	X	X	--	X	--	--	--	--	--	--	--
	Etheostoma ditrema - Coldwater Darter	--	--	X	X	X	--	--	--	--	--	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	X	X	X	X	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	X	X	X	X	--	X	X	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	--	3	7	7	33	6	8	--	--	44	22	12	21	49
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	X	X	X	X	--	X	--	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	X	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-23a	BC-23b	BC-23c	BC-24	BC-25	BC-26	BC-27	BC-28	BC-29	BC-30	BC-31	BC-32	BC-33	BC-34
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	X	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	X	--	--	--	X	--	X	--	--	--	X	--	X	--
	Cyprinella callistia - Alabama Shiner	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	X	--	--	--	--	--	--	--	--	X	--
	Cyprinella venusta - Blacktail Shiner	--	--	--	--	X	X	--	--	--	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--	--	X	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	X	X	X	--	--	--	--	X	X	X	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	X	--	--	X	--	--	--	--	X	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	X	--	--	X	X	X	--	--	--	X	--	X	X	X
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	X	X	--	X	X	--	--	X	X	X	--
	Minytrema melanops - Spotted Sucker	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	--	X	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	X	--

Family	*Species* - common name	Station													
		BC-23a	BC-23b	BC-23c	BC-24	BC-25	BC-26	BC-27	BC-28	BC-29	BC-30	BC-31	BC-32	BC-33	BC-34
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	X	X	--	--	X	--	--	--	--	X	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	X	--	--	--	--	--	X	X	--	--	--	--	X	--
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	--	--	--	X	--	--	--	--	--	--	--	X	--
	Lepomis cyanellus - Green Sunfish	--	--	--	--	--	--	X	X	--	--	--	--	X	--
	Lepomis gulosus - Warmouth	--	--	--	X	--	--	--	--	--	--	--	--	X	--
	Lepomis macrochirus - Bluegill	X	--	--	X	X	X	X	X	--	--	--	X	--	--
	Lepomis megalotis - Longear Sunfish	X	--	--	X	X	X	--	X	--	--	--	--	X	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	--	X	--	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	X	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	X	--	--	--	X	--	X	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	--	X	--	--	--	--	--	--	X	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	--	--	X	--	X	X	--	--	X	--	X	--
	Etheostoma ditrema - Coldwater Darter	--	--	--	--	X	--	X	X	--	--	--	--	X	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	--	X	--	X	X	--	--	--	--	X	--
	Etheostoma trisella - Trispot Darter	53	14	1	--	--	--	--	1	--	--	--	--	--	3
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	--	--	--	--	--	X	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-35a	BC-35b	BC-36a	BC-36b	BC-37	BC-38	BC-39	BC-40	BC-41	BC-42	BC-43	BC-44a	BC-44b	BC-44c
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	X	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	X	--	X	X	X	X	X	X	--	X	X	X	X	--
	Cyprinella callistia - Alabama Shiner	--	--	--	--	--	--	--	--	--	--	--	X	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	--	--	--	--	--	--	X	--	X	--	--
	Cyprinella venusta - Blacktail Shiner	--	--	--	--	--	--	X	--	X	--	--	X	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	X	--	X	X	--	--	--	--	--	--	--	X	--	X
	Notemigonus crysoleucas - Golden Shiner	X	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	X	X	X	--	--	--	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	X	--	X	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	X	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	X	--	X	X	X	X	X	X	--	--	X	X	--	X
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	X	--	X	--	X	--	X	--	X	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	X	--	--	--	--	--	--	--	--	--	X
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	X	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-35a	BC-35b	BC-36a	BC-36b	BC-37	BC-38	BC-39	BC-40	BC-41	BC-42	BC-43	BC-44a	BC-44b	BC-44c
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	X	X	--	--	--	--	--	X	X	X	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	--	X	--	--	X	--	--	--	--	X	--	--	--
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	X	X	X	--	--	--	--	X	X	X	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	--	--	X	--	--	X	--	--	--	--	--	--	--
	Lepomis cyanellus - Green Sunfish	X	--	X	X	--	X	X	X	--	X	X	X	X	X
	Lepomis gulosus - Warmouth	--	--	X	--	--	--	--	--	--	--	--	--	X	--
	Lepomis macrochirus - Bluegill	X	--	X	X	--	X	--	--	--	X	X	--	X	X
	Lepomis megalotis - Longear Sunfish	--	--	X	X	--	--	--	X	--	--	--	X	--	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	X
	Lepomis miniatus - Redspotted Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	X	--	--	--	--	--	X	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	X	--	X	--	X	X	--	--	--	--	--	X	--	X
	Etheostoma ditrema - Coldwater Darter	X	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	X	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	X	--	--	--	--	--	--	X	--	X	--	--
	Etheostoma trisella - Trispot Darter	--	2	--	--	--	--	13	3	20	--	5	--	--	1
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	--	--	X	--	X	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-44d	BC-44e	BC-45	BC-46	BC-47	BC-48	BC-49	BC-50	BC-51	BC-52	BC-53	BC-54	BC-55	BC-56
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	X
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	X	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	--	X	--	--	--	--	X	X	--	X	X	--	X	X
	Cyprinella callistia - Alabama Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	--	--	--	--	--	--	--	--	--	X	X
	Cyprinella venusta - Blacktail Shiner	--	--	--	X	--	--	X	X	X	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	X	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	X	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	X
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	--	X	--	X	--	--	X	X	X	--	X	--	--	--
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	X	X	--	--	X	--	--	--	--	--	X
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-44d	BC-44e	BC-45	BC-46	BC-47	BC-48	BC-49	BC-50	BC-51	BC-52	BC-53	BC-54	BC-55	BC-56
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	X	--	--	--	X	X	X	--	--	X	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	X	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	--	--	X	X	X	--	--	X	X	X	X	X	--
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	--	X	--	--	--	--	--	--	--	--	--	X
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	--	--	X	--	--	--	--	--	--	--	--	X	--
	Lepomis cyanellus - Green Sunfish	--	X	--	--	X	X	--	X	X	X	--	--	X	X
	Lepomis gulosus - Warmouth	--	--	--	--	X	--	--	--	--	--	--	--	--	--
	Lepomis macrochirus - Bluegill	X	X	--	X	--	--	--	X	X	--	--	--	X	--
	Lepomis megalotis - Longear Sunfish	--	--	--	--	--	--	--	X	--	--	--	--	X	--
	Lepomis microlophus - Redear Sunfish	--	X	--	--	--	--	--	--	X	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	X	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	--	--	--	--	X	--	--	--	X	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	X	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	--	X	--	--	--	--	--	X	--	--	--	X
	Etheostoma ditrema - Coldwater Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	X
	Etheostoma trisella - Trispot Darter	3	--	3	--	4	2	9	--	--	--	--	--	--	--
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	X	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-57	BC-58	BC-59	BC-60	BG-1	DR-1	DR-2	DR-3	DR-4a	DR-4b	CR-1	BP-1a	BP-1b	BP-10a
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	X	X	X	X	--	--	X	--	X	--	--	X	--	--
	Cyprinella callistia - Alabama Shiner	X	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	X	--	X	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella venusta - Blacktail Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	X	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	--	X	--	X	X	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	X	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	X	X	X	--	--	--	--	--	--	--	X	--	--	--
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	X	--	--	--	--	--	--	--	--	--	--	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BC-57	BC-58	BC-59	BC-60	BG-1	DR-1	DR-2	DR-3	DR-4a	DR-4b	CR-1	BP-1a	BP-1b	BP-10a
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	--	--	--	--	X	--	X	--	--	X	--	X	X
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	X	--	X	X	X	--	--	--	--	--	--	--	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	--	--	--	--	--	--	X	X	--	--	--	--	--
	Lepomis cyanellus - Green Sunfish	--	--	X	--	--	--	X	X	X	X	X	--	--	--
	Lepomis gulosus - Warmouth	--	--	--	--	--	X	--	X	--	--	--	--	--	--
	Lepomis macrochirus - Bluegill	X	--	--	--	X	X	X	X	X	--	--	X	X	X
	Lepomis megalotis - Longear Sunfish	--	--	--	--	X	--	--	--	--	--	X	--	--	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	X	--	--	--	--	--	X	--	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	--	--	--	--	--	--	--	X	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	--	--	--	X	--	--	--	--	--	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	X	--	X	--	--	--	--	--	--	--	--	--
	Etheostoma ditrema - Coldwater Darter	--	--	--	--	--	--	--	--	--	X	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BP-10b	BP-11	BP-12	BP-13	BP-14	BP-15	BP-16	BP-17	BP-18	BP-2	BP-3	BP-4a	BP-4b	BP-4c
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	--	--	--	X	X	--	X	X	--	--	--	--	--	--
	Cyprinella callistia - Alabama Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella venusta - Blacktail Shiner	--	--	--	X	--	--	--	X	--	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	--	--	--	X	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	X	--	--	X	X	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	X	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	--	--	--	--	--	--	--	X	X	--	--	--	--	--
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BP-10b	BP-11	BP-12	BP-13	BP-14	BP-15	BP-16	BP-17	BP-18	BP-2	BP-3	BP-4a	BP-4b	BP-4c
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	--	--	--	X	--	--	X	--	--	X	--	X	X
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	--	--	--	--	X	--	--	--	--	--	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	X	--	--	--	--	--	--	--	--	--	--	--	X
	Lepomis auritus - Redbreast Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis cyanellus - Green Sunfish	--	--	--	--	X	--	--	X	--	--	--	--	X	--
	Lepomis gulosus - Warmouth	--	X	--	X	--	--	--	--	--	--	X	--	--	--
	Lepomis macrochirus - Bluegill	--	--	--	X	--	--	X	X	--	X	X	--	X	X
	Lepomis megalotis - Longear Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	X	--	--	--	--	--	--	X	--	X	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	--	--	X	--	X	X	--	--	--	--	--	--
	Etheostoma ditrema - Coldwater Darter	--	--	--	--	--	X	--	X	--	--	--	X	X	X
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	--	--	--	--	--	--	--	--	--	--	--	3	1	3
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BP-5a	BP-5b	BP-5c	BP-6a	BP-6b	BP-6c	BP-7a	BP-7b	BP-7c	BP-8	BP-9a	BP-9b	TC-1	TC-2
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Cyprinella callistia - Alabama Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella venusta - Blacktail Shiner	--	--	--	--	--	X	--	--	--	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	--	--	--	--	--	--	--	X	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	--	X	X	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	X	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		BP-5a	BP-5b	BP-5c	BP-6a	BP-6b	BP-6c	BP-7a	BP-7b	BP-7c	BP-8	BP-9a	BP-9b	TC-1	TC-2
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	--	X	--	X	--	X	X	--	X	--	--	--	--
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	X	X	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	--	--	--	--	X	--	--	--	--	--	--	--	X
	Lepomis cyanellus - Green Sunfish	--	--	--	--	--	X	X	X	--	--	--	--	--	--
	Lepomis gulosus - Warmouth	--	--	--	--	--	X	X	--	--	--	--	--	--	--
	Lepomis macrochirus - Bluegill	--	--	X	X	X	X	X	X	--	X	--	--	--	X
	Lepomis megalotis - Longear Sunfish	--	--	--	--	X	--	X	--	--	--	--	--	--	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	X	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	--	--	--	--	X	--	--	--	--	--	--	--
	Etheostoma ditrema - Coldwater Darter	--	--	--	X	X	X	X	X	--	X	--	X	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	--	--	--	10	1	--	12	7	1	--	5	5	--	--
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		TC-3	TC-4	TC-5	TC-6	TC-7	TC-8	TC-9	CC-1	CC-2	CC-3a	CC-3b	CC-4a	CC-4b	CC-4c
Petromyzontidae - lampreys															
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	X	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows															
	Campostoma oligolepis - Largescale Stoneroller	X	X	X	X	X	--	X	--	--	X	X	--	--	--
	Cyprinella callistia - Alabama Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	X	--	--	--	--	--	X	--	--	--	--
	Cyprinella venusta - Blacktail Shiner	--	--	X	--	--	X	--	--	--	X	X	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	--	X	X	--	--	--	--	--	X	X	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	--	--	X	--	--	--	--	--	X	X	--	X	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	X	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	--	--	--	--	--	--	X	--	--	--	--	X	X	X
Catostomidae - suckers															
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	--	--	X	--	X	X	--	--	X	X	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes															
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	X	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	X	--	--	--	--	--	X	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station													
		TC-3	TC-4	TC-5	TC-6	TC-7	TC-8	TC-9	CC-1	CC-2	CC-3a	CC-3b	CC-4a	CC-4b	CC-4c
Fundulidae - topminnows															
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	X	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers															
	Gambusia affinis - Western Mosquitofish	--	--	--	--	--	--	X	--	--	X	--	--	--	--
Cottidae - sculpins															
	Cottus carolinae - Banded Sculpin	--	--	--	X	--	--	--	--	--	--	--	--	--	--
Centrarchidae - sunfishes															
	Ambloplites ariommus - Shadow Bass	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	X	--	X	--	--	--	--	X	--	X	--	--	--
	Lepomis cyanellus - Green Sunfish	--	X	X	X	--	--	--	--	--	X	X	X	--	--
	Lepomis gulosus - Warmouth	--	--	--	--	--	--	X	--	--	X	X	--	--	--
	Lepomis macrochirus - Bluegill	--	X	--	--	--	X	X	--	X	X	X	--	X	X
	Lepomis megalotis - Longear Sunfish	--	--	--	--	--	--	--	--	--	--	X	--	X	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	X	--	--	X	--	--	--	--	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	--	--	--	--	--	--	--	X	--	X
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	X	--	--	--	--	--	--	--	--	--	--
Percidae - darters															
	Etheostoma coosae - Coosa Darter	--	--	--	X	--	--	X	--	--	X	X	--	--	--
	Etheostoma ditrema - Coldwater Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	X	--	--	--	--	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	X	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Sciaenidae - drums															
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes															
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station										
		CC-4d	CC-5a	CC-5b	CC-6	CC-7	SC-1	SP-1	SP-2	SP-3	SP-4	SP-5
Petromyzontidae - lampreys												
	Ichthyomyzon gagei - Southern Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--
	Lampetra aepyptera - Least Brook Lamprey	--	--	--	--	--	--	--	--	--	--	--
Cyprinidae - carps and minnows												
	Campostoma oligolepis - Largescale Stoneroller	--	X	X	X	--	X	X	X	X	X	--
	Cyprinella callistia - Alabama Shiner	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella lutrensis - Red Shiner	--	--	--	--	--	--	--	--	--	--	--
	Cyprinella trichroistia - Tricolor Shiner	--	--	--	--	--	--	--	--	--	X	--
	Cyprinella venusta - Blacktail Shiner	--	--	X	--	--	--	--	--	--	--	--
	Luxilus chrysocephalus - Striped Shiner	--	X	X	X	--	--	--	--	--	--	--
	Lythrurus lirus - Mountain Shiner	--	--	--	--	--	--	--	--	--	--	--
	Notemigonus crysoleucas - Golden Shiner	--	--	--	--	--	--	--	--	--	--	--
	Notropis chrosomus - Rainbow Shiner	--	X	X	X	--	X	--	--	--	--	--
	Notropis stilbius - Silverstripe Shiner	--	--	--	--	--	--	--	--	--	--	--
	Notropis xaenocephalus - Coosa Shiner	--	--	--	--	--	--	--	--	--	--	--
	Phenacobius catostomus - Riffle Minnow	--	--	--	--	--	--	--	--	--	--	--
	Pimephales notatus - Bluntnose Minnow	--	--	--	--	--	--	--	--	--	--	--
	Pimephales promelas - Fathead Minnow	--	--	--	--	X	--	--	--	--	--	--
	Pimephales vigilax - Bullhead Minnow	--	--	--	--	--	--	--	--	--	--	--
	Rhinichthys atratulus - Blacknose Dace	--	--	--	--	--	--	--	--	--	--	--
	Semotilus atromaculatus - Creek Chub	--	X	X	X	--	X	--	--	--	--	X
Catostomidae - suckers												
	Erimyzon oblongus - Creek Chubsucker	--	--	--	--	--	--	--	--	--	--	--
	Hypentelium etowanum - Alabama Hogsucker	--	X	X	--	--	X	--	X	--	--	--
	Minytrema melanops - Spotted Sucker	--	--	--	--	--	--	--	--	--	--	--
	Moxostoma poecilurum - Blacktail Redhorse	--	--	--	--	--	--	--	--	--	--	--
Ictaluridae - North American catfishes												
	Ameiurus melas - Black Bullhead	--	--	--	--	--	--	--	--	--	--	--
	Ameiurus natalis - Yellow Bullhead	--	--	--	--	--	--	--	--	--	--	--
	Ictalurus punctatus - Channel Catfish	--	--	--	--	--	--	--	--	--	--	--
	Noturus leptacanthus - Speckled Madtom	--	--	--	--	--	--	--	--	--	--	--
Esocidae - pickerels and pikes		--	--	--	--	--	--	--	--	--	--	--
	Esox niger - Chain Pickerel	--	--	--	--	--	--	--	--	--	--	--

Family	*Species* - common name	Station										
		CC-4d	CC-5a	CC-5b	CC-6	CC-7	SC-1	SP-1	SP-2	SP-3	SP-4	SP-5
Fundulidae - topminnows												
	Fundulus olivaceus - Blackspotted Topminnow	--	--	--	--	--	--	--	--	--	--	--
	Fundulus stellifer - Southern Studfish	--	--	--	--	--	--	--	--	--	--	--
Poecillidae - livebearers												
	Gambusia affinis - Western Mosquitofish	--	--	--	--	X	--	X	--	X	--	--
Cottidae - sculpins												
	Cottus carolinae - Banded Sculpin	--	--	--	--	--	X	--	--	--	--	--
Centrarchidae - sunfishes												
	Ambloplites ariommus - Shadow Bass	--	--	--	--	--	--	--	--	--	--	--
	Centrarchus macropterus - Flier	--	--	--	--	--	--	--	--	--	--	--
	Lepomis auritus - Redbreast Sunfish	--	--	X	--	--	X	--	--	--	--	--
	Lepomis cyanellus - Green Sunfish	--	X	X	X	X	X	X	X	--	X	--
	Lepomis gulosus - Warmouth	--	X	--	--	--	--	X	--	--	--	--
	Lepomis macrochirus - Bluegill	X	--	X	X	X	--	X	X	--	X	--
	Lepomis megalotis - Longear Sunfish	--	X	--	X	--	--	--	--	--	--	--
	Lepomis microlophus - Redear Sunfish	--	--	--	--	--	--	--	--	--	--	--
	Lepomis miniatus - Redspotted Sunfish	--	--	--	--	--	--	--	--	--	--	--
	Micropterus coosae - Redeye Bass	--	--	--	--	--	--	--	--	--	--	--
	Micropterus punctulatus - Spotted Bass	--	--	--	--	--	--	--	--	--	--	--
	Micropterus salmoides - Largemouth Bass	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis annularis - White Crappie	--	--	--	--	--	--	--	--	--	--	--
	Pomoxis nigromaculatus - Black Crappie	--	--	--	--	--	--	--	--	--	--	--
	Centrarchid Hybrid	--	--	--	--	--	--	--	--	--	--	--
Percidae - darters												
	Etheostoma coosae - Coosa Darter	--	X	X	--	--	X	--	X	--	--	--
	Etheostoma ditrema - Coldwater Darter	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma jordani - Greenbreast Darter	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma stigmaeum - Speckled Darter	--	--	--	--	--	--	--	--	--	--	--
	Etheostoma trisella - Trispot Darter	--	--	--	--	--	--	--	--	--	--	--
	Percina kathae - Mobile Logperch	--	--	--	--	--	--	--	--	--	--	--
	Percina nigrofasciata - Blackbanded Darter	--	--	--	--	--	--	--	--	--	--	--
Sciaenidae - drums												
	Aplodinotus grunniens - Freshwater Drum	--	--	--	--	--	--	--	--	--	--	--
Elassomatidae- pygmy sunfishes												
	Elassoma zonatum - Banded Pygmy Sunfish	--	--	--	--	--	--	--	--	--	--	--

Appendix C

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

25 February 2010

26 August 2010

Station BP-4, unnamed tributary to Ballplay Creek at Jones Chapel Road

3 February 2010

26 August 2010

Station BP-7, unnamed tributary to Ballplay Creek at Co. Hwy. 24

16 March 2010

26 August 2010

Station BP-9, unnamed tributary to Ballplay Creek at Alford Road

28 January 2009

26 August 2010

Station BC-12, unnamed tributary-1 to Little Canoe Creek at road-side pool

11 February 2009

Station BC-17, Middle Gin Branch

26 August 2010

Station BC-18, Upper Gin Branch

Male

Female

Trispot Darters collected at station BP-7, unnamed tributary to Ballplay Creek at Co. Hwy. 24

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