

Native Aquatic Species of the Tallapoosa Watershed

► Healthy urban streams can support an incredible diversity of aquatic life, especially here in Alabama. Yet many of us are unfamiliar with the local aquatic wildlife living and needing protection in our own backyard streams.

Numerous aquatic species can be found in the small streams of the Tallapoosa River watershed in eastern Alabama. Many of these are not caught by anglers so are rarely seen if they are not sought out. Shiners, sunfish, and darters, for example, are so small and fast you may not see them unless you're looking for them. Yet they are some of the most beautiful and interesting species in the state.

Many of the species featured here can be found in your average backyard stream, and all of them can be found in the Tallapoosa watershed. Getting to know your local aquatic life can reveal a complex and colorful biodiversity. With this awareness can come greater appreciation for the many creatures that make up our local ecosystems, plus greater understanding of how to protect them.

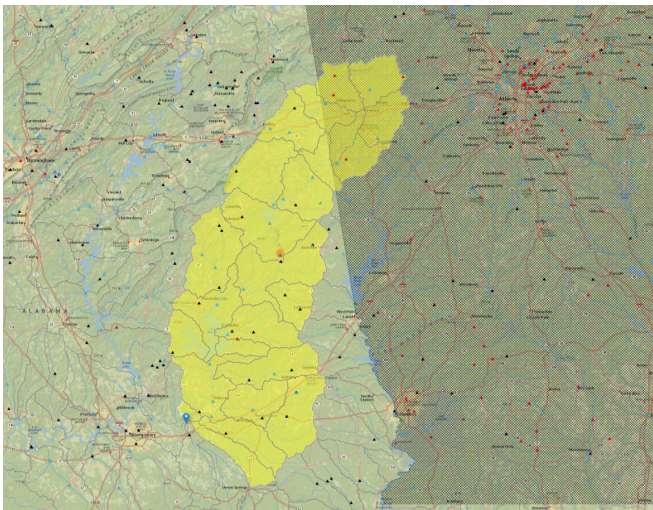


Figure 1. The Tallapoosa River Basin (outlined in yellow). (Photo credit: USGS Stream Stats Tool)



Figure 2. The Tallapoosa River Basin overlain with Alabama counties. (Photo credit: Rachel McGuire, Auburn University Water Resources Center)



Figure 3. Tallapoosa shiner. (Photo credit: Bryson Hilburn)

Tallapoosa Shiner (*Cyprinella gibbsi*)

One of the most beautiful and colorful varieties of shiner, the Tallapoosa shiner is a species of minnow relatively common in small, fast-flowing streams in the Tallapoosa River watershed. Outside of this watershed it is replaced with a nearly identical sister species called tricolor shiner (*Cyprinella trichroistia*). Tallapoosa shiners form large schools of twenty-to-twenty-five fish at a time. It is an incredible sight when their full coloration showcases their iridescent scales and orange fins.



Figure 5. Speckled darter. (Photo credit: Bryson Hilburn)

Speckled Darter (*Etheostoma stigmaeum*)

Speckled darters are found throughout most of Alabama, except for the Tennessee River Basin, outside of the Bear Creek system. These darters are found in many fast-flowing, clean streams without much silt on the bottom. They are easily identified by their striking turquoise coloration, something relatively rare in most species in Alabama. During the breeding season, these colors get darker and cover even more of their bodies.



Figure 4. Sly crayfish. (Photo credit: Jason Dattilo)

Sly Crayfish (*Procambarus versutus*)

The sly crayfish is a strikingly colored species of crayfish easily identified by the light-colored band running down its side. This is one of the smallest species of native crayfish in Alabama, and one of the least aggressive. Because of this, it is easily outcompeted by larger and more aggressive species of crayfish. Sly crayfish also can be highly impacted by nearby development due to sedimentation suffocating their eggs and nesting cavities. While this crayfish is widespread in South Alabama, its stability east of the Tallapoosa relies heavily on large swaths of land, held in ecological stewardship by Fort Benning, where it can find small, clean streams to make its home.



Figure 6. Longear sunfish. (Photo credit: Bryson Hilburn)

Longear Sunfish (*Lepomis megalotis*)

A sunfish species like the near-ubiquitous bluegill, the longear sunfish is slightly less common but has some of the most intense coloration of any fish species in Alabama. This species can be identified by the “long ear” on the gill cover that has a bright-white edge, and by its psychedelic orange and blue patterning. It is found in heavily rooted stream banks, where it takes shelter in the root mats and forages for smaller fish and insects that live there. Because of this, a healthy riparian buffer that provides shelter and slows the streamflow is essential for a healthy population.



Figure 7. Banded pygmy sunfish. (Photo credit: Jason Dattilo)

Banded Pygmy Sunfish (*Elassoma zonatum*)

As its name suggests, this is a tiny species. Adults grow to only about 1 inch in length. The banded pygmy lives primarily in very still, swampy areas and is relatively common in Tuskegee National Forest. To attract females during breeding season, the male makes a nest in the vegetation and performs an elaborate dance display, rapidly moving its fins while swimming erratically up and down. The term used for these displays in scientific literature is “wiggle-waggle dances” (seriously). After wooing a mate, the male allows the female to lay eggs in the vegetation before chasing her away to prevent the female from cannibalizing the eggs. The species relies on stagnant water for this whole process; thus, rapid or unexpected flows from impervious surfaces can wash them away easily.



Figure 8. Finelined pocketbook. (Photo credit: Brittany Barker-Jones)

Finelined Pocketbook (*Hamiota altilis*)

The finelined pocketbook was once native to most of the southern plains of Alabama, but land development has damaged much of its habitat, reducing its range to only a few streams in the Cahaba, Coosa, and Tallapoosa River watersheds. This mussel is currently listed as federally threatened under the Endangered Species Act. An interesting behavior of this mussel is that during

the breeding season it displays its “lips,” which closely resemble a small darter fish, as a lure to attract larger predatory species, such as bass. It is like an orchid luring in a pollinator with its flower mimicry. Once it has successfully lured in a predator, it releases its larvae, which latch onto the larger fish to use as a free ride for dispersal up and down the stream.



Figure 9. Tallapoosa redeye bass. (Photo credit: Rowell Guevarra)

Tallapoosa Redeye Bass (*Micropterus tallapoosae*)

Native only to the Tallapoosa River watershed, this species of bass doesn’t grow as large as the more famous (and out-competing) largemouth bass, but its coloration is much more striking—most notably the iridescent blue lines on its face and leopard print camouflage on its back. This species is found in just about any fast-flowing creek or river in the watershed, particularly in the pools of waterfalls and the bedrock crevices on creek bottoms. You might be surprised by how small a pool out of which you can catch an impressively sized redeye.



Figure 10. Warmouth.

Warmouth (*Lepomis gulosus*)

One more species of sunfish, the warmouth, lives up to its name. This species is highly aggressive and the most “bass-like” in behavior, happy to strike at just about anything that moves in front of it. It can be identified by its very large mouth, its blue and orange speckling overlaid on green camouflage body coloration, and a red border around the ear. The warmouth is generally more solitary than other species of sunfish, and it tends to live in deeper, slow-flowing pools like those in the bend of a stream where woody debris often piles up.



Figure 11. Tallapoosa darter. (Photo credit: Bryson Hilburn)

Tallapoosa Darter (*Etheostoma tallapoosae*)

Found only in the Tallapoosa River system, this darter is one of the most common darter species in the watershed. Like most species of darters, this fish is found in smaller, quick-flowing streams with good gravel or rocky bottoms. It uses its large pectoral fins to remain stable in the flowing water while searching for food along the bottom. In late February, its coloration begins to develop, and you can find some incredibly colorful individuals.



Figure 12. Alabama shiner. (Photo credit: Jason Dattilo)

Alabama Shiner (*Cyprinella callistia*)

The Alabama shiner is one of the largest and most common species of shiner found in the Tallapoosa River watershed. It can grow to be over 6 inches long and may gather in schools of twenty or more. During the breeding season, the male develops bony ridges, called tubercles, on its head. These function in much the same way as deer antlers, with the male using them for a mating display to females and for fighting other males; it is not uncommon to find individuals with scars on their sides from previous battles.



Figure 13. Black madtom. (Photo credit: Bryson Hilburn)

Black Madtom (*Noturus funebris*)

One of the smallest catfish species in the United States, black madtoms rarely get longer than 6 inches. There are several species of madtom catfish in Alabama, and all of them stay relatively small, preferring fast-flowing streams over the larger lakes and rivers for which their cousins are known. Madtoms are particularly interesting because they are a venomous catfish; their spines cause a reaction similar to a bee sting if they prick you. Madtoms are cavity nesters, which means they like

to find small, tight places in which to hide their eggs and from which to ambush small aquatic insects that go by. Generally, this means they can be found under rocks and logs in the stream. In impacted streams, it's not uncommon to find them nesting inside discarded aluminum cans. So the next time you pick litter out of your stream, be sure those cans really are empty before recycling them.

Importance of Healthy Streams for Healthy Ecosystems

When it rains, do you ever think about where that rainwater goes? Forested and urban environments respond to rain events very differently. As our cities and neighborhoods become more developed, more impervious surfaces (concrete, asphalt, rooftops) are covering what once was a natural landscape. Impervious surfaces and compacted soils prevent stormwater from being absorbed into the soil and can cause landscape pollutants, such as oil, sediment, metals, and fertilizers, to wash into urban streams. These pollutants often run into storm drains that, in turn, run directly into local rivers and streams. The result? Too much water flowing in a short amount of time, carrying pollutants that negatively affect the health of our streams, lakes, and estuaries.

The most common pollutant in Alabama is sediment. Some sedimentation occurs naturally, but it is exacerbated by stormwater, eroding stream banks, and development sites that do not follow erosion and sediment control standards. Excess sediment often ends up in the bottom of the nearest stream.

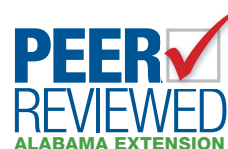
Many native small fish and invertebrates, like the ones featured here, rely on the natural rocky or graveled bottoms of our streams to feed, mate, and find shelter. If all the spaces in the gravel are filled in by soil and silt, many of these organisms die or move on to a different stream. Thinking about ways to prevent pollutants from entering waterways can help to protect and preserve aquatic life.

Conclusion

The aquatic life found in our rivers and streams in eastern Alabama can remain biodiverse if work is done to help prevent pollutants, including excess sediment, from entering the waterways. To learn more about how watersheds work, how land use impacts water quality, and how to select best management practices to create meaningful impacts, refer to the *Alabama Watershed Stewards Handbook*.



Figure 14. Excessive sediment in waterway due to eroded stream banks and flashy water volumes. (Photo credit: Alabama Watershed Stewards)



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New June 2025, ANR-3156

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