

Mad about MADTOMS

Cal C. Johnson, Certified Fisheries Biologist
Alabama Department of Environmental Management

Alabama the Bountiful

Those of us who call Alabama home know Alabama raises some of the best farm raised, grain-fed catfish anywhere. But most Alabamians don't know the catfish we eat have a similar "cousin" called a madtom found in Alabama's rivers and streams. Alabama is home to approximately 450 fish species found in numerous lakes, streams, rivers, reservoirs, springs, and estuaries. Of those 450 fish species, 10 of those species are called madtoms and they are a special kind of fish that resembles a catfish, but are different due to their adipose fin. They have a fin on their back that is connected called an adipose fin, which connects their dorsal fin to their tail fin. Some madtoms have saddles across their backs to help them blend in their natural environments, and some are restricted to certain river and stream systems. All madtoms have venomous spines located in their dorsal and pectoral fins. If handled incorrectly, these fish can fin you and cause a painful sting, like that of a bee; hence, why they are commonly referred to

as "madtoms". If someone handles the fish carelessly, they could get finned and become angry or mad in how the fish got the best of them before the fish drops back into the water.

Madtoms look like catfish, yet are much smaller and are indicative of good water quality when found in clean, flowing rivers and streams in their environment and are usually the first to flee when the stream becomes degraded. They generally can reach up to 4 inches when they reach maturity, but the Stonecat (largest of the madtoms) can reach up to 6.5 inches. All madtoms forage on mostly aquatic insects. They hide under rocks and between rock crevices during the day and feed at night, which ultimately makes these critters hard to find when sampling. However, a lot has been learned from this small, ecologically important species of catfish found in the untamed streams in Alabama, and here are some interesting facts about some of our native Alabama madtoms.



Shoal Creek Stonecat
in its habitat.



PHOTO BY BERNIE KUHAJDA

Elegant Madtom: *Noturus elegans*

- Restricted to Paint Rock River, West Fork of Flint River, and Piney Creek in north AL
- Prefers small clear, swift riffles with bedrock and slabrock substrates
- Recent collections in Paint Rock River have not yielded any specimens in recent history. Further study needs to determine the reason why individuals are not as common like they may have been previously.



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Brindled Madtom: *Noturus miurus*

- Found in soft mud substrates with little current and in slow moving streams associated with snags, twigs, and aquatic vegetation
- Found only in the Bear Creek drainage of the Tennessee River
- Body is brown and yellow with 3 saddles across its back to help camouflage it as predator and prey



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Mountain Madtom: *Noturus eleutherus*

- Inhabits medium to large size streams with good current and found in gravel runs and riffles
- Forages on aquatic insects where attached algae mats are attached to larger rocks
- Only found in Limestone County
- A protected nongame species under ADCNR regulations



PHOTO BY BERNIE KUHAJDA

Speckled Madtom: *Noturus leptacanthus*

- Most common madtom species
- Found in all drainages of AL except in the TN river drainage of north AL
- Has small distinct black spots scattered all over its body and fins



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Alabama Fun Facts }

There are several contributing factors for Alabama's high biodiversity: the amount of rainfall, diverse geological environment, climate, and the vast amounts of river and stream miles in the state. This allowed extensive habitats to form over time which also allowed fish to adapt differently in these favorable climatic conditions.



PHOTO BY BERNIE KUHAJDA

Frecklebelly Madtom: *Noturus munitus*

- Prefers large gravel shoals like that found in Cahaba, Alabama, and Tombigbee Rivers
- Once common and abundant, the species has suffered decline due to maintaining waterways and causing gravel shoals to become unstable
- State listed species and protected under ADCNR regulations



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Stonecat: *Noturus flavus*

- Usually, stream populations reach an average age of up to 6 years and can reach up to 6.5 inches
- Largest madtom species found in AL
- Found exclusively in Lauderdale and Limestone counties in large rivers that have medium sized boulders

ADEM's IBI Stream Team

What is being done to conserve Alabama's unique natural history and biodiversity? A team of biologists have been tasked to conserve and enhance Alabama's waterways through a scientific approach known as the *Index of Biotic Integrity of Fishes*. This research has developed a biological tool in which biologists can understand the health of a stream more effectively, and make better aquatic resource decisions based off of the fish collected in a sample. The fish collected in a sample can tell biologists if the stream is meeting certain water quality standards simply by the presence and absence of fish collected during the fish sample.

Seth Wood, Ron Sparks, Cal Johnson,
Anthony Roberts, James Worley

