



Arkansas Field
Office

Alligator Gar *Atractosteus spatula*

Identification and Conservation



Photo by Dr. Reid Adams, UCA

Identification



Alligator gar are often confused with other more commonly encountered gar species due to their similarity of appearance to the untrained eye. Most people capturing the more common species believe they have caught an alligator gar and will refer to it as such. However, this species is easily distinguishable with experience, training, and upon visual comparison.

Alligator gar are distinct from other gars by having a heavier and broader body, a short broad snout, and numerous large canine-like teeth usually in a double row. The number, rows, and locations of teeth are highly variable with some fish having them in and outside of the closed mouth. Their coloration is generally dark olive green above fading to gray-white sides and a white belly. The large scales are dotted with varying camouflaging shades mixing between black and olive. If in doubt take a picture and request assistance with identification.



What can you do?

- Help identify and report locations or sightings of live, dead, captured, and/or tagged alligator gar.
- Practice catch and release of netted or hooked gar and only take or shoot gar for food as necessary.
- Respect spawning periods from April through July and reduce the potential for take or disturbance by avoiding take of large gar in shallow waters and sport shooting.
- Educate fellow recreational, commercial, and bow fishers of the conservation status, ethics, regulations, and laws for protecting and conserving this important species.
- Develop tournament and club rules to assist in conservation .
- Contact the Service or Arkansas Game & Fish Commission for assistance or questions.



U.S. Fish & Wildlife
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For more information on alligator gar:
<http://www.fws.gov/arkansas-es/>

Photo by Tommy Inebnit, UCA



Habitat Loss and Increased Mortality

Over the past 50 years alligator gar populations have been declining along with their habitat, due primarily to the combined loss of annual floodplain flooding during spawning seasons and increased harvesting. Alligator gar are a long-lived species with limited resources and time for reproduction. Like other large fishes when a female fails to spawn successfully due to poor conditions or is removed from the population it has a much greater effect on the population stability than removing a small fish with a shorter life span. A female may only have a handful of successful spawns in her lifetime. Therefore to maintain the species and the trophy sizes they must be managed and their habitat conserved to insure that the natural ecological balance they provide is maintained and so that future generations can experience this great fish. Their status may even serve as an indicator for other species.



Fish are being tagged with both electronic tracking devices and visual identification tags. If you see or capture a fish, tagged or not, please report it immediately.

Species Status

The conservation status of alligator gar is currently uncertain due to limited information; however, observations of historical trends and preliminary information suggests that the alligator gar population has declined substantially over the past 50 years warranting further investigation. More information is critical to assist in both the state and range wide assessment and to identify species and habitat conservation management needs.

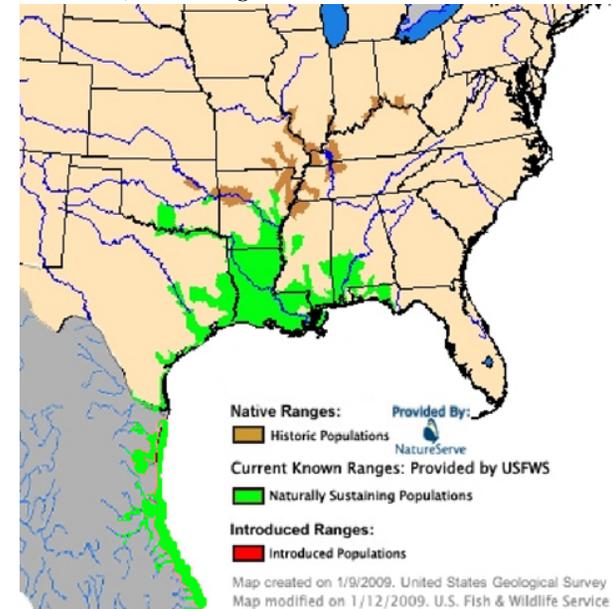
State, federal, and private organizations throughout the southeastern U.S. and Arkansas are collaborating to census the population, conduct research, track fish, improve habitat, restock isolated populations, and trying to determine the causes of their decline. There is speculation that the reduction in and alteration of spawning habitat due to the damming and leveeing of rivers along with over harvesting from sport, commercial, and eradication efforts are responsible. As attitudes and our understanding about the importance of large predators has changed we now recognize the need and potential for restoring this species to the recreational, commercial, and ecological status it deserves.



The U.S. Fish & Wildlife Service, in cooperation with the University of Central Arkansas, the Arkansas Game & Fish Commission, and local fishers, is currently conducting annual monitoring and status assessment surveys across Arkansas. Sites and fish are monitored to track population numbers and to assess habitat quantity and quality to improve conservation and management of the species.

Species Background

Alligator gar (*Atractosteus spatula*) are the largest of four species of gar found in Arkansas. The largest one on record in Arkansas was taken from the White River and was 8 ft. 2 in. long and weighed 240 lbs. This species, the largest in the Mississippi River Valley, once had a range that spread across most large river systems and tributaries from the Gulf of Mexico states upstream into the Ohio River Valley. However, recent findings suggest a substantial decline in the population and range. In Arkansas, this species was once highly prolific and sought after as a sport fish in the White River, but recent surveys suggest populations are far below historic levels and could be declining further. In some states they are believed to have been extirpated. The Arkansas Field Office, in cooperation with the University of Central Arkansas and the Arkansas Game and Fish Commission, is assessing the status of alligator gar in Arkansas and working cooperatively with the members of the multi-state Alligator Gar Technical Committee to determine their status range wide and to promote their conservation, research, and management.



Range map for the alligator gar. They are typically found along and in the vicinity of large rivers in the southeastern U.S. such as the Mississippi, Arkansas, White, Ouachita, and Red Rivers in Arkansas.