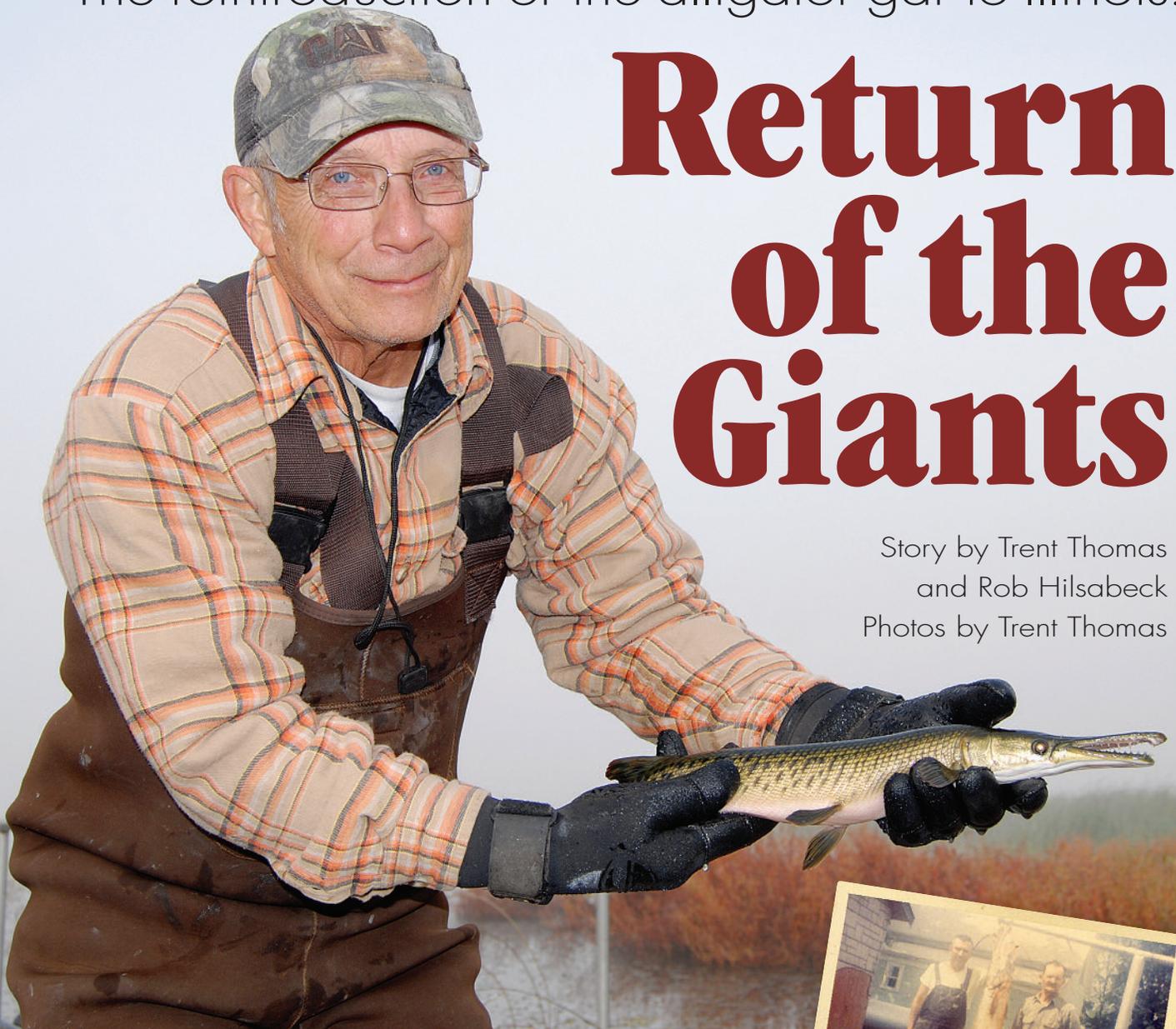


The reintroduction of the alligator gar to Illinois.

# Return of the Giants

Story by Trent Thomas  
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**I**magine looking out over a flooded river bottom near the mouth of the Kaskaskia River and seeing about 100 huge fish, most of them weighing approximately 100 pounds with a few of them as big as 300 pounds and 10 feet long. This was the jaw-dropping scene described in an Illinois Natural History Survey Bulletin written by Wilbur Luce in 1933, as he described a spawning event of alligator gar (*Atractosteus spatula*).

Fast forward 30 years and contemplate the fact that by the 1960s this species

**One day, the alligator gar recently released to Illinois waters may be documented like the 1966 harvest of a 7-foot monster.**

no longer occurred in the waters of Illinois. A fish so huge and formidable, gathering in large numbers to spawn “covering the shrubs, bushes, and other objects in the water with eggs” just 30 years earlier had been lost.

The alligator gar was extirpated (a local extinction) from Illinois waters.

The alligator gar once reached the northern limit of its distribution in the waters of Illinois. The species suffered a critical decline in numbers throughout

the Mississippi River basin and today is limited to vulnerable, remnant populations in Louisiana and Texas. The last known Illinois individual—7 feet in length and 130 pounds—was reportedly caught on hook and line from the Cache-Mississippi Diversion Channel about 2.5 miles northwest of Klondike, Alexander County in 1966.





**An opportunistic feeder, the alligator gar eats the most abundant prey items, usually gizzard shad and rough fish.**

Luce's "A Survey of the Fishery of the Kaskaskia River" in 1933 reported that "this fish was common at certain times near the mouth of the Kaskaskia River...rolling on the surface of the water near Chester." There were other reports of alligator gar being caught throughout much of the state up to the fateful 1960s including the Big Muddy and Wabash rivers in the late 1800s, the Illinois and Mississippi rivers from the 1920s-1960s, and a 5-footer caught by a commercial fisherman in 1964 from Horseshoe Lake in Alexander County. Alfred C. Weed, the Assistant Curator of Fishes at the Field Museum of Natural History in Chicago, wrote in 1923: "[the gar] is common in the Mississippi River about to St. Louis and is often seen as far as the mouth of the Illinois River. Some are taken in the latter stream, almost every year, about as far up as Beardstown."

So, what happened to the alligator gar?

The 1913-1914 Annual Report of the Game and Fish Conservation Commission of Illinois to the governor provides some insight. The report describes how they would "seine thousands of [gar] from the water in the spring when they congregate on their spawning grounds." The Commission later promoted the edible qualities of the

"garfish" to make it profitable for commercial fishermen "to take great quantities of this fish from the waters." The Commission even made it a misdemeanor to return a "garfish" to the water alive.

Despite all of this effort, it seems apparent that alligator gar were most strongly impacted by the draining of backwater lakes and swamps and the extensive construction of locks, dams and levees along the larger rivers. Much of the habitat these fish relied upon was eliminated, and remaining backwater habitat was further degraded by changes in water levels, sedimentation and destructive habits of common carp and, later, grass carp. Several species of Illinois fish once abundant in such habitats have experienced a similar decline over the years.

The alligator gar was, and still is, a largely misunderstood species. Keep in mind that the government-endorsed eradication effort described above took place during the same era common

carp from Europe were intentionally introduced into waters throughout the country, an unfortunate move that plagues us today. Since those days, a lot has been learned about ecology and fisheries management, and species not pursued as a sportfish or lacking commercial value are no longer necessarily tagged as worthless or a nuisance.

The alligator gar is an ancient, primitive species that evolved in these waters for millions of years. To remove such a species, especially a top predator or keystone species, from the ecological equation can have drastic and far-reaching effects on the whole river population.

Alligator gar are opportunistic feeders. Their diet depends on the easiest, most readily available food source. They are a lazy, lie-in-wait predator that does not expend energy chasing down prey items, and have been known to scavenge on dead items to supplement live items.

Alligator gars filled a niche that no other species of fish did, roaming the backwaters of large rivers eating the most abundant prey items, mostly gizzard shad and rough fish. Without these evolved checks and balances, species capable of rapid reproduction quickly overpopulate waters and throw everything out of whack.

This scenario often plays out when exotic species are introduced into a

**Alligator gar fry grew rapidly in raceway tanks at Jake Wolf Memorial Fish Hatchery before transfer to outdoor ponds.**





population that is not prepared for them, and is the all-too familiar case with the introduction of Asian carps. It is highly doubtful that alligator gar could have prevented Asian carps from becoming established, but they likely would have lessened the impact by gorging themselves on young carp that flooded the backwater lakes and taking the occasional mature carp that had become too big for any other fish to eat.

The U.S. Fish and Wildlife Service has initiated an effort to raise alligator gar at the Private John Allen National Fish Hatchery in Tupelo, Mississippi. By doing so, they are able to provide thousands of alligator gar fry to states willing and able to implement reintroduction efforts for this species.

Following similar efforts in the nearby states of Kentucky, Missouri and Arkansas, Illinois' first shipment of alligator gar fry arrived at Jake Wolf Memorial Fish Hatchery in Mason County in May 2010. These fish grew rapidly, eating pelleted food in a raceway tank at the hatchery. A month later they were moved to outdoor grow-out ponds to feed on minnows and silversides. Their rapid growth continued and the largest individuals were more than 18 inches in length by early October.

Alligator gar have made that important first step in their return to Illinois waters. Rice Lake and Banner Marsh

**Bottomland lakes along the Illinois River received the first stockings of alligator gars in October 2010.**

**Monitoring alligator gar in the grow-out ponds allowed biologists to track their growth from mid-summer (top) to late summer (bottom).**

state fish and wildlife areas in Fulton County and Hennepin-Hopper Lakes in Putnam County received the first stockings in 2010. These bottomland lakes are being managed to promote the historical aquatic habitat that existed in the Illinois River valley. Department of Natural Resources biologists will monitor and study the alligator gar as they grow and interact as a member of the fish population in these waters.

These are exciting times as we watch and learn more about this fish. Unfortunately, it will be a minimum of 16 years before these fish mature and it is known

(Photos by Rob Hilsabeck)



if they are able, once again, to successfully reproduce in Illinois waters.

Hopefully, the alligator gar will return as an established species in Illinois, taking their place among the fish population—and possibly aiding in the battle to control Asian carp.

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