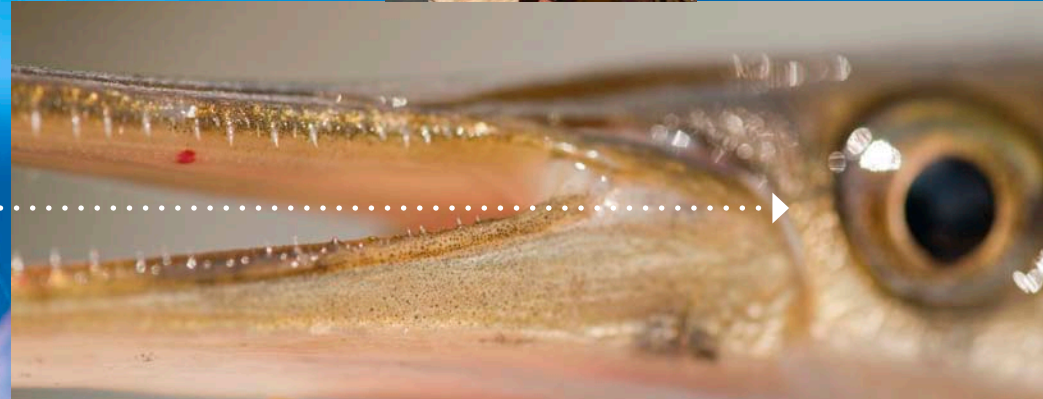


What this living  
fossil lacks in game  
appeal, it makes up  
for with tenacity  
and an astonishing  
natural history.

# Tangling With Longnose **Gar**

By Michael A. Kallok

Photography by Tom Thulen



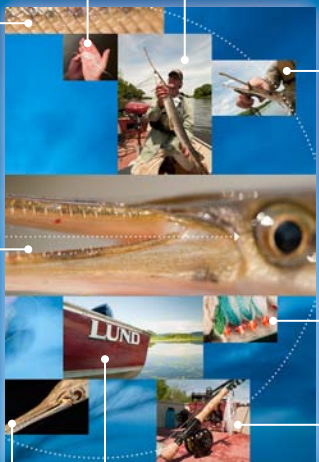


The diamond-shaped, razor-sharp, and enamel-hard scales of gar were once used to tip arrows.

No hook required: Flies made of frayed nylon rope tangle in the teeth of longnose gar.

Removing a tangled rope fly requires a good pair of pliers.

Geving displays a 40-inch longnose gar caught from Pool 5a of the Mississippi.



Verchota Landing near Minnesota City provides access to Pool 5a.

A heavy 8 to 10 weight flyrod is useful for casting bulky rope flies.

While a simple chunk of frayed rope might suffice, these rope flies are embellished with fish-attracting flash.

The gar's bony beak is 15 to 20 times as long as it is wide.

Gar impale prey with their sharp teeth before turning it sideways in their slender beak to swallow it.



A good map like the one found in the DNR's Mississippi River guide is essential for navigating the river's maze of backwaters.

## Between Red Wing and La Crescent, U.S. Highway 61

doesn't stray far from the thick blue line of the Mississippi. Precipitous limestone outcrops shoulder the river's broad floodplain. Ordinarily I'd be looking for a tendrill of blacktop west into the deeply furrowed landscape of the driftless area, where trout swim in coldwater streams.

But today will be anything but ordinary.

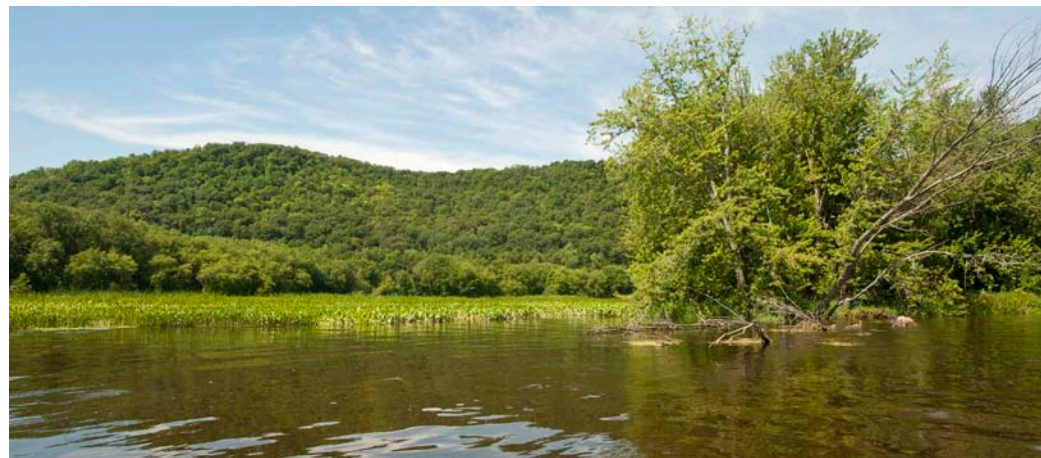
I'm on my way to Pool 5a of the Mississippi River in hopes of catching a living fossil of the Cretaceous Period—longnose gar. With me is Andrew Geving—an ardent proponent of the simple pleasure of angling regardless of species and co-founder of roughfish.com, a website devoted to fish most anglers try not to

catch. He also holds the current state record for a type of sucker known as golden redbhorse.

Geving's curiosity about Minnesota's native fish was first inspired by family trips to St. Croix State Park. There, with hook, line, sinker, and humble nightcrawler, he and his brother Corey (the other half of roughfish.com) discovered a diverse world swimming beneath the river's surface. Like birders keeping

### Backwater Maze

We arrive at Verchota Landing near Minnesota City just after 9 a.m. with a 16-foot fishing boat in tow. Waiting for us is Heath Sershen, technology manager for the National Eagle Center in Wabasha and self-described former trout snob. He still enjoys fishing for trout, but it's clear that Sershen now avidly pursues other species as he relates a story about a recent battle with a bowfin. Like gar, the bowfin is a ray-



a lifelist of their sightings, the Gevings and their cadre of so-called "roughfish" enthusiasts believe part of angling's appeal is landing species they've never caught before.

After lucking into a school of shortnose gar the previous summer, I'm looking to add longnose gar to my own lifelist. Geving has agreed to help me.

finned relic of the Cretaceous.

Sershen is on his way to Pool 8 in search of shovelnose sturgeon today, but he's stopped by to refresh Geving's memory on how to safely navigate to the gar spot, which he's labeled "the snag" on the map he leaves with us.

Sershen bids us luck, and we part ways. With our gear

Pool 5a, like the rest of Mississippi River below St. Anthony Falls, is home to a remarkably diverse assembly of fish. A typical sampling by DNR fisheries can turn up as many as 60 different species, including baitfish.





Catching gar with rope flies is a neat challenge for fly-fishing enthusiasts, but a lively sucker minnow, small hook, and slip bobber is also an effective way to catch shortnose and longnose gar.



secured and boat launched, we motor out of the sluggish water near the access to a small channel and head upstream. This isn't the main channel of the river where pleasure boats cruise and tugs push cargo-laden barges. We're picking our way through the braided backwaters of the Upper Mississippi River National Wildlife & Fish Refuge. There are no navigational aids here, so we rely on a depth finder as we motor cautiously through a maze of channels that weave between and around islands. Along the way, we pass a handful of anglers. They are likely fishing for bass, walleye, or panfish—all evolutionary newbies compared with gar, which have existed for 100 million years.

### Asteroid Survivor

During the Late Cretaceous, gar swam with guitarfish, sharks, paratarpon, and a host of other fish that either no longer exist or no longer inhabit freshwater. *Tyrannosaurus rex* and *Triceratops* roamed the land, and pterodactyls flew overhead. But, in the plodding context of geological time, nearly half of earth's species were on the cusp of mass extinction.

Sixty-six million years ago, an asteroid 10 kilometers in diameter slammed into what is now the Yucatan Peninsula of Mexico,





After untangling the rope fly, this gar was released. An armor coat, makes gar difficult to clean, but many anglers, especially in southern states, hold gar meat in high esteem. While gar flesh is edible, gar eggs are reportedly poisonous to humans and other mammals. Little is known about the toxin or what evolutionary advantage it may have provided considering that fish preying on gar eggs are unaffected by the toxin.

according to University of North Dakota paleontologist Joseph Hartman. The impact of the asteroid sent a massive cloud of hot debris into space, and chunks re-entering the atmosphere ignited a planetary firestorm.

“Life would have been a blazing hell for a few weeks,” says Hartman.

Animals that couldn’t burrow or find refuge in the water were likely wiped out. A period of cold due to the sunlight-blocking cloud of dust and smoke is thought to have followed this global inferno, says Hartman.

Clues to life on Earth before and after the catastrophic end of the Cretaceous can be found in Montana and North Dakota in a group of rock exposures known as the Hell Creek Formation. Hartman, who has extensively studied this division

of Upper Cretaceous and Lower Paleogene rock, says fossilized gar scales are among the most common finds throughout the formation. In other words, the fossil record shows gar didn’t merely survive: They continued to thrive.

### First Encounter

Cumulous puffs drift lazily beneath wispy cirrus clouds on what’s going to be a hot July day. Geving recognizes a distinct tangle of roots that once nourished a massive cottonwood tree projecting from the river’s surface, and we nudge the boat into shallow water on the opposite shore.

“They’re here,” he says, pointing back across the channel to a slick of water behind the snag.

With the outboard silenced, we can hear the splashy porpoises of the gar as we watch them



from a distance. They aren’t rising to the surface to feed; rather they are coming up for gulps of atmospheric oxygen. The ability to breathe air allows gar to survive in very warm, oxygen-depleted water. This trait was likely an advantage for gar as they endured the apocalyptic conditions that wiped out the dinosaurs at the end of the Cretaceous.

The reason they are still here can be attributed to the relatively unique north-south direction of the Mississippi River, according to Dan Dieterman, DNR fisheries biologist in Lake City. Globally, not many rivers have a longitudinal orientation, says Dieterman. The significance, he explains, is that gar and other survivors of the Cretaceous, such as bowfin, sturgeon, and paddlefish, could migrate up and down the Pa-

Geving (above) says figuring out how to catch a species he’s never caught before provides him with a different perspective on fish and the water they inhabit. But Geving is also amazed by the fish-catching insight and ingenuity of the hundreds of other anglers who regularly share their knowledge and experiences on [roughfish.com](http://roughfish.com).

## Eocene Gar on Display

Pellentesque eu nulla lectus, a facilisis sapien. Pellentesque rutrum lacus vitae tellus lacinia quis auctor purus mattis. Vivamus id dui arcu. Cras vel ornare enim ectus, a facilisis sapien. Pellentesque rutrum lacus vitae tellus lacinia quis auctor purus mattis. Vivamus id dui arcu. Cras vel ornare enim ectus, a facilisis sapien. Pellentesque rutrum lacus vitae tellus lacinia quis auctor purus mattis. Vivamus id dui arcu. Cras vel ornare enim Vivamus id dui arcu.





through—just their fascinating natural history—I think more people would start seeing these fish as worthy of pursuit and reflection.”

### Toothy Tricks

A sprawling bed of arrowhead fringes a backwater on the far side of the river, and we decide to motor 50 yards across to anchor the boat in the slack water of an eddy within casting distance of our quarry.

On the way, a gar snatches a breath of air near the boat—providing my first glimpse of *Lepisosteus osseus*. Both of Minnesota’s gar species share this genus name, derived from two Greek terms: *lepid*, meaning *scale*, and *osteon*, meaning *bone*. Technically the gar’s diamond-shaped scales are comprised of an enamel-like organic protein called *ganoin*. Purportedly, this coat of bone-hard armor can flatten a bullet.

The longnose gar’s beak is more than twice as long as its head and just as impenetrable as its scales, so hooking one requires an understanding of what’s going on underwater. Gar ambush prey, such as minnows, gizzard shad, and carp, with a slash of their beak. Then they impale it with rows of sharp, slender teeth, before clumsily manipulating the fish so it can be swallowed head-

first. The conventional fishing method calls for a bobber, sinker, small hook, minnow, and the patience to wait until the gar has swallowed the bait far enough to hook the soft skin at the back of its mouth.

But there is a more clever way to catch this fish. Compared with shortnose gar, the needlelike teeth of longnose gar are crowded along elongate mandibles like bristles on a fine-toothed comb. So instead of hooks, we’re using flies made of fine strands of snarled nylon rope, which sticks like Velcro inside the prickly maw of a longnose. A heavy fly rod seems an obvious choice for delivering the 6-inch hanks of unraveled rope, which we’ve embellished with feathers and tinsel for fish-attracting flash.

### Connecting With the Cretaceous

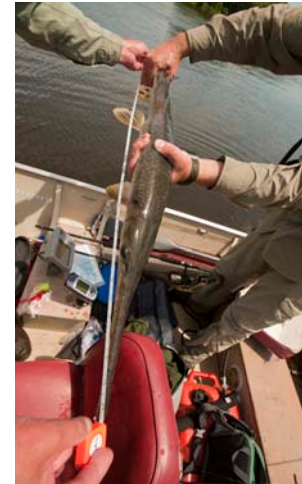
Gar continue to surface along the seam of the channel’s fast water and the slack water where we’re anchored. We aim to cast

our flies along that edge and let them sink before beginning our retrieves. I make a cast and let the fly descend as the current pulls my line into a gentle arc.

When the slack disappears, I’m caught off guard by a savage strike. Out of habit, I gingerly lift the rod and realize too late that there is no hook to set. I’ve yanked the fly out of the gar’s jaws. It’s an obvious temptation—one that I’ll have to overcome if I want to tangle with a gar.

I make several fishless casts before another gar slashes my fly. This time, I gently tighten up the line, and I feel as if I’ve snagged the whirring blade of an electric hedge trimmer. The gar’s wild beak-slashing further entangles the fly in its teeth; and as I pull in more line, the tension vanishes. The 3-foot-long missile I’m connected to charges toward the boat, then flings itself out of the water 20 feet away. Next it heads for the river bottom, quickly changes course

Though this gar measured 40 inches long, it weighed less than 8 pounds. But what gar lack in girth, they make up for with wild acrobatics and a tenacious fight.

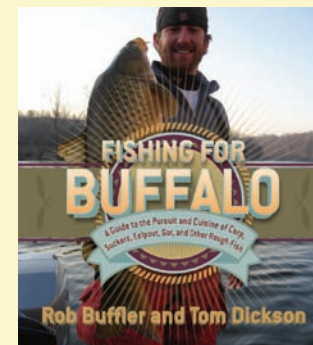


Because gar can breath atmospheric oxygen, they are able to survive out of the water for 24 hours or longer. It’s a fortunate adaptation considering that untangling the rope fly from a longnose gar’s teeth is a tedious but important task. Without removing the fly, the gar’s beak could become stuck shut, resulting in suffocation or starvation.

leogene Mississippi as the climate shifted between ice ages and periods of warming.

Gar only exist in North America. And of the five species that inhabit the continent, only the shortnose and longnose gar are found in Minnesota—primarily in the Mississippi and its major tributaries. Considering that both these gar thrive in water that is 86 to 95 degrees Fahrenheit, Minnesota is at the northern fringe of their range. At the southern edge of their North American range, longnose gar can reach 50 pounds. In comparison, Minnesota’s state-record longnose, pulled from the St. Croix River, weighed 16 pounds, 12 ounces.

Regardless of size, Dieterman says, “if people consider what these fish have been



### Required Reading for Roughfishers

What’s the best way to prepare gar? Find the answer to that question and many more in *Fishing for Buffalo* by Rob Buffler and Tom Dickson. First published in 1990, *Fishing for Buffalo* remains the quintessential guide and reference for anyone interested in the pursuit, lore, and cuisine of less-sought-after fish species. Reprinted in 2009 by University of Minnesota Press, *Fishing for Buffalo* is available at bookstores and online at [www.upress.umn.edu](http://www.upress.umn.edu).



and thrusts its spear-shaped body out into the current, where it launches skyward again.

The fish continues its defiant routine for a minute or two before I'm able to lead this ancient predator alongside the boat. The gar's burnished silver and bronze flank sparkles with an olive sheen in the midday sun, and I find myself transfixed by its disproportionately large eyes. Somewhere behind the black porthole of its gold-rimmed pupils, a crackling engine of neurons hardwired for survival surveys me as a threat—with the same impulse for flight as its ancestors fleeing from far larger, long-extinct creatures of the Cretaceous.

Geving lifts the gar into the boat, and we work to prop its bill open to pick out the tangled rope. It's a tedious process that is only partially within our control. At one point the gar convulses off the boat floor and bloodies Geving as it brushes its razor-sharp scales in a tail-to-head direction across his bare calf. We're eventually able to free the fly.

Before returning the fish to the river, I gaze again into one of its unflinching eyes. What I find staring back is the cold realization that where survival of species is concerned, the ultimate fate of mine is far less certain than that of the gar. ❶



*Geving admires his last catch of the day—a magnificent 35-inch longnose gar.*