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### Sharks of the Gulf of Mexico



The northern Gulf of Mexico is home to an incredible diversity of sharks; in fact, there are nearly 100 different species of **elasmobranchs** (sharks, skates, and rays) found in our waters. These species range from small coastal sharks, like the Atlantic sharpnose shark, to large apex predators like the charismatic tiger shark and even the iconic great hammerhead. All of these animals play important roles in their ecosystems and many support valuable recreational and commercial fisheries. In February 2020, the state of Mississippi opened a commercial shark fishery in state waters. Here, we highlight the new fishery, as well as some of the common local shark species you can expect to find in Gulf waters.

**Mississippi's Commercial Shark Fishery** 



Sharks are an important source of food and are consumed throughout the world. However, many sharks grow slowly, mature late in life, and have low reproductive output. These traits make some shark populations

particularly susceptible to overharvest and mean that for some species, even modest removals are unsustainable. Consequently, shark populations in many parts of the world have been overfished.

In 1993 the US federal government enacted the first Fishery Management Plan for sharks in the Atlantic Ocean. This plan outlawed shark finning, put in place recreational and commercial limits on shark fishing, and led to increased research efforts to better understand the biology of these fishes. As a result of these initial efforts, additional federal and regional regulations have been established to better protect and preserve shark populations in US waters, including the Gulf of Mexico.

After nearly three decades of management, shark populations in the Gulf of Mexico have begun to recover. While populations are nowhere near historical abundances, these upward trends are indicative of successful management practices. Accordingly, the state of Mississippi opened a commercial shark fishery in February 2020. Only shark species with healthy populations are allowed to be harvested, namely blacktip shark, Atlantic sharpnose shark, and finetooth shark. According to the most recent assessements for these three species, these populations are not overfished and are not experiencing overfishing. Details of the new Mississippi commercial shark fishery can be found in Title 22, Part 7 of the Mississippi commercial saltwater rules and regulations (linked here) and are summarized below.

- Fishermen who are interested must possess the appropriate commercial fishing license, purchase a Commercial Shark Endorsement (\$10), and attend a safe handling and species identification workshop.
- The harvest season will run concurrent with the federal shark season for the Western Gulf of Mexico subregion (west of 88 degrees longitude).
- Sharks can be gutted prior to landing, but all must be landed with their fins naturally attached. Shark finning (removing only the fins and discarding the remainder of the shark) is illegal.
- Small coastal sharks (e.g., Atlantic sharpnose sharks and finetooth sharks) must be at least 25 inches total length.
- Large coastal sharks (e.g., blacktip sharks) must be at least 37 inches total length.
- The aggregate bag limit is 25 sharks (small and/or large coastal sharks combined) per vessel per day.

Landings from this new fishery will be closely monitored by the Mississippi Department of Marine Resources.

## **Species Profiles:**

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#### the most abundant



The **Atlantic sharpnose shark** is the most ubiquitous shark in the Gulf of Mexico. They are easily identified by the white spots that speckle their side, as well as their relatively small stature – they max out just shy of four feet long and ten pounds. This species can live up to eighteen years, and feeds on other small fish, worms, crustaceans, and mollusks.

The **blacknose shark** is identified by its namesake – a black/dusky nose. They are often copper or dark yellow in color, and can grow slightly larger than the Atlantic sharpnose shark; the maximum size is roughly 4.5 feet long and fifteen pounds. Blacknose sharks feed primarily on small bony fish. They live to be sixteen years old and are found in the shallow, warm coastal waters of the Gulf.

The **blacktip shark** is another common character that you may encounter in both nearshore and offshore Gulf waters. This species grows to a maximum of 6.5 feet, can weigh over 100 pounds and can live to be fifteen years old. They are often confused with another local species, the spinner shark. However, the blacktip shark is bulkier in appearance, with a stouter nose and smaller total length. The other defining characteristic between blacktip and spinner sharks is that the black markings on a spinner shark are very distinct, and spinner sharks have black on their anal fin, while blacktip sharks do not.

## **Species Profiles:** *the apex predators*



Apex predators don't get more iconic than the illustrious **tiger shark**. These large sharks can reach nearly 15 feet in size and can live up to thirty-five years. They have specialized curved and serrated teeth that allow them to consume a wide range of unusual prey items, including fish, sea turtles, and even birds. Juveniles of this species have very distinct dark spots and bands that fade in coloration as they mature. Tiger sharks can be found worldwide, and both juveniles and adults are common residents to the Gulf.

You may have heard of folks catching baby **bull sharks** in rivers and even lakes. Indeed, juvenile bull sharks have a unique ability to tolerate a wide range of salinities (saltiness of the water). This trait affords small bull

sharks protection from predators because they can hide out in shallow freshwater regions like Mobile Bay, Alabama. Adults can grow up to nine feet and can live for *fifty* years! They often prey on animals such as other small fish (particularly catfish), stingrays, and even smaller sharks (including other bull sharks!).

The **shortfin mako** is an oceanic or pelagic predator, meaning they reside and hunt in open ocean waters and rarely come near land. They are commonly encountered in the Gulf. They can grow up to twelve feet long and can weigh well over a thousand pounds. Their sharp teeth and fast speed makes them perfect predators for swordfish and tuna. They can be identified by the striking blue coloration of their body, their conical snout, and their *lunate* (crescent-shaped) tail.

# **Species Profiles:** *the hammerheads*



When folks think of a hammerhead, the classic species that comes to mind is the **great hammerhead**, a common inhabitant of the Gulf. In fact, the Gulf is home to not one, but several different hammerhead species! The great hammerhead is by far the largest, growing up to fifteen feet long and weighing over a thousand pounds. They also are the longest living hammerhead species, and can live up to forty-four years. They have a distinctively large dorsal fin and a nearly straight hammer-shaped head (known as a *cephalofoil*). They are common predators of stingrays, using their hammers to unearth hidden rays from the sand.

The **scalloped hammerhead** is smaller than the great hammerhead, growing to a maximum size just shy of twelve feet and a maximum weight of approximately four hundred fifty pounds. They have smaller dorsal fins than the great hammerhead, but have notches on their cephalofoil that give them a scalloped-shape appearance. This species is found in tropical coastal waters, as well as offshore in deeper waters. They prey on items like stingrays, small sharks, and bony fishes. While not as long-lived as the great hammerhead, the scalloped hammerhead can live up to thirty years.

The **bonnethead** is the smallest hammerhead species, reaching only about four feet long and weighing less than twenty pounds. They are often referred to as "shovel-heads" by local anglers, due to their flattened, shovel-shaped head, which is distinctly different from the wider hammers of the great and scalloped hammerheads. This species eats small invertebrates, and has a strong preference for blue crabs. Bonnetheads grow faster than their larger relatives, and only live up to eighteen years.

These are but a few of the many species of sharks, skates and rays that inhabit the northern Gulf of Mexico. Look for our booth this summer for an opportunity to learn more about these incredible fishes!



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