An Overview of Protected Species in the Gulf of Mexico

NOAA Fisheries Service
Southeast Regional Office
Protected Resources Division

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Introduction

PROTECTED SPECIES

NOAA Fisheries Service is responsible for protecting the nation's living marine resources and their habitat.

What are protected species?

Any species under jurisdiction of NOAA Fisheries Service that is protected by either the Endangered Species Act (ESA) or the Marine Mammal Protection Act (MMPA). This includes threatened and endangered species, candidate species, and all marine mammals.

Definitions

PROTECTED SPECIES

Endangered Species: any species in danger of extinction throughout a significant portion of its range.

Threatened Species: any species likely to become endangered in the foreseeable future throughout a significant portion of its range.

Candidate Species: any species being considered for listing as threatened or endangered.

Species of Concern: any species that NOAA Fisheries Service has concerns regarding status and threats.

Definitions

PROTECTED SPECIES

***Marine Mammals*:** all marine mammals are protected from take (injury or harassment) under the MMPA regardless of status.

Threatened and endangered marine mammals are protected under both the ESA and MMPA.

Gulf of Mexico

MARINE MAMMALS

There are **28 different species of marine mammals** known to occur in the Gulf of Mexico. All 28 species are protected under the MMPA and six are also listed as endangered under the ESA (sperm, sei, fin, blue, humpback and North Atlantic right whales).

Endangered Marine Mammals

Of the six ESA-listed whales, only endangered sperm whales are considered to commonly occur. There is a resident population of female sperm whales in the Gulf of Mexico, and whales with calves are sighted frequently.

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SEA TURTLES AND FISH

Threatened and Endangered Sea Turtles

- Kemp's ridley sea turtles
- Hawksbill sea turtles
- Green sea turtles
- Loggerhead sea turtles (Northwest Atlantic Distinct Population Segment)
- Leatherback sea turtles

Threatened and Endangered Fish

- Gulf sturgeon
- Smalltooth sawfish

Gulf of Mexico

SPECIES OF CONCERN

Species of Concern

Fish

- Dusky shark
- Sand tiger shark
- Warsaw grouper
- Speckled hind (grouper)
- Alabama shad
- Key silverside
- Opossum pipefish
- Mangrove rivulus

Invertebrates

- Ivory tree coral

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CANDIDATE SPECIES

Candidate Species

Invertebrates

- Boulder star coral (*Montastraea annularis*)
- Boulder star coral (*Montastraea franksi*)
- Elliptical star coral
- Lamarcks sheet coral
- Mountainous star coral
- Pillar coral
- Rough cactus coral

Fish

- Scalloped hammerhead shark

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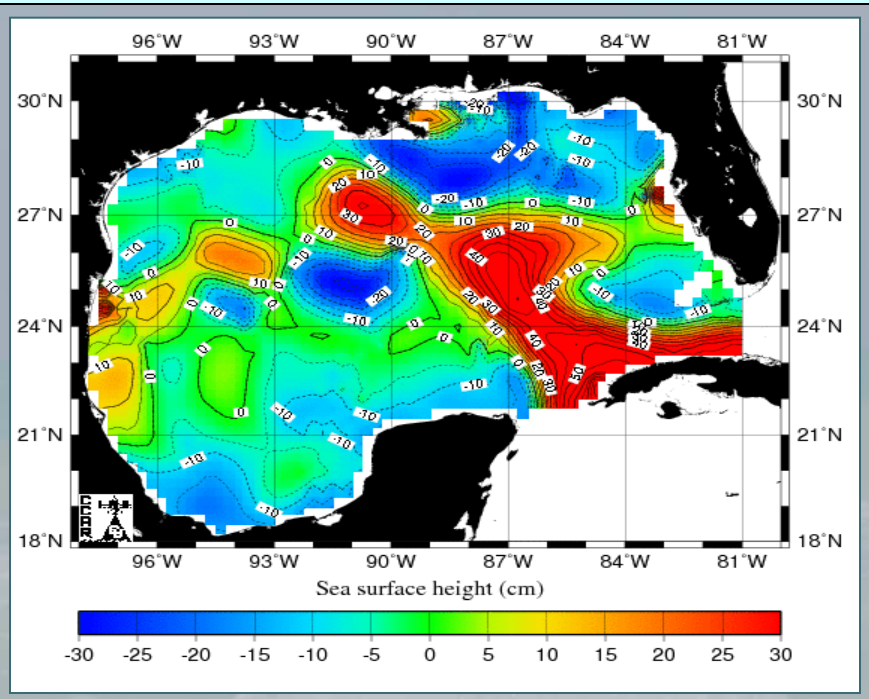
ANIMAL DISTRIBUTION

Animals are not randomly distributed in the oceans. Species inhabit areas that provide life-supporting needs such as shelter, feeding, and reproduction. Many species seasonally migrate or inhabit large home ranges to meet biological needs.



Sea surface height from satellite data. Sea surface height can indicate areas of upwelling and downwelling.

Oceanic features affect the distribution and abundance of protected species. Some important features include seafloor relief (e.g., shelf edges and canyons), water temperature, ocean currents (e.g., the Loop Current), and cyclonic and anti-cyclonic eddies.

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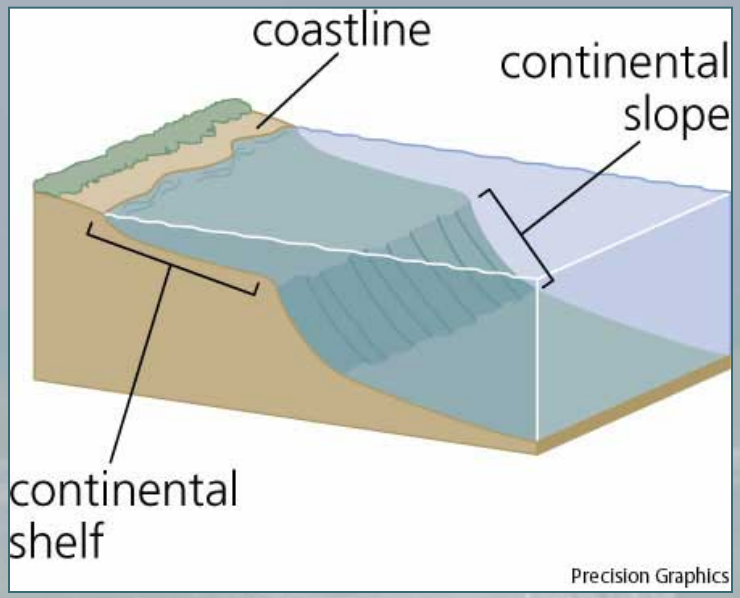
CONTINENTAL SHELF

The continental shelf extends seaward until it reaches a depth of approximately 200m. At the edge of the shelf, the seafloor descends down a slope to much greater water depths.



Protected species are often found near oceanographic features in the Gulf of Mexico. For example, areas of mixing and upwelling near the shelf edge, oceanic fronts, currents, and cyclonic eddies are all areas where many species find foraging opportunities or hunt their preferred prey.

Gulf of Mexico

NEARSHORE and OFFSHORE SPECIES

The Gulf of Mexico is home to a high diversity of organisms. Species may be generally grouped according to water depths where they most often occur.

Nearshore = Estuarine waters to continental shelf edge (0m - 200m).

Offshore = Beyond shelf edge (> 200m).

Nearshore and offshore occurrences are approximations of distribution, and many species in the Gulf of Mexico may migrate between these areas during their life cycle or seasonally (e.g., for reproduction, water temperature, currents, and prey availability).

NEARSHORE SPECIES

Nearshore Species

MARINE MAMMALS

Typically, ***no threatened or endangered species of whales occur in the nearshore waters*** over the continental shelf of the Gulf of Mexico.

Occasionally, North Atlantic right whales and humpback whales may be found in nearshore waters of the Gulf of Mexico, usually during the winter season. However, sightings of these species are relatively uncommon.

Of the 28 species of marine mammals known to occur in the Gulf of Mexico, ***only three protected species of dolphins commonly occur in nearshore waters***.

Common Nearshore Species

DOLPHINS

Bottlenose dolphins inhabit the Gulf of Mexico year-round. They are blue-gray with lighter sides and bellies and have a robust body and head. This species is the most commonly observed dolphin in nearshore waters, and travel alone or in groups up to 20.

Atlantic spotted dolphins prefer tropical to warm-temperate waters over the continental shelf, edge, and upper reaches of the slope. These dolphins have variable spotting. They are very active at the surface and often breach while feeding. Group size is usually between 5-15.

Risso's dolphins are typically found around the continental shelf edge and steep upper sections of the slope (>100 m depths). They are light gray and often exhibit extensive scarring. These dolphins travel alone or in groups of >100, and may be observed with other species.

Endangered and Threatened Nearshore Species

SEA TURTLES

Loggerhead
(NW Atlantic DPS)

threatened

Green

threatened; Florida nesting population is endangered

Kemp's ridely

endangered

Hawksbill

endangered

Sea turtles may be observed breathing, basking, swimming, or feeding at the surface. Sea turtles may migrate long distances and are able to dive to great depths.

Leatherback sea turtles (not pictured above) typically inhabit pelagic waters, but can also be found in nearshore waters during the nesting season while feeding on jellyfish concentrations, or in deep nearshore waters.

Endangered and Threatened Nearshore Species

SEA TURTLES

Nesting Kemp's ridley sea turtle

Nesting: between May and October,

Nests: several clutches (groups of eggs) each nesting season.

Eggs: Between 50-70 ping-pong ball-sized eggs are deposited in a nest cavity and buried with sand.

Hatching: Eggs hatch after 8-10 weeks of incubation.

Females return to lay eggs on the beach from which they hatched and swam offshore as hatchlings.

Generally, sea turtles are found in higher abundances in nearshore coastal waters off nesting beaches and foraging areas. Nearshore coastal areas are also important foraging habitats for juvenile sea turtles.

Endangered Nearshore Species

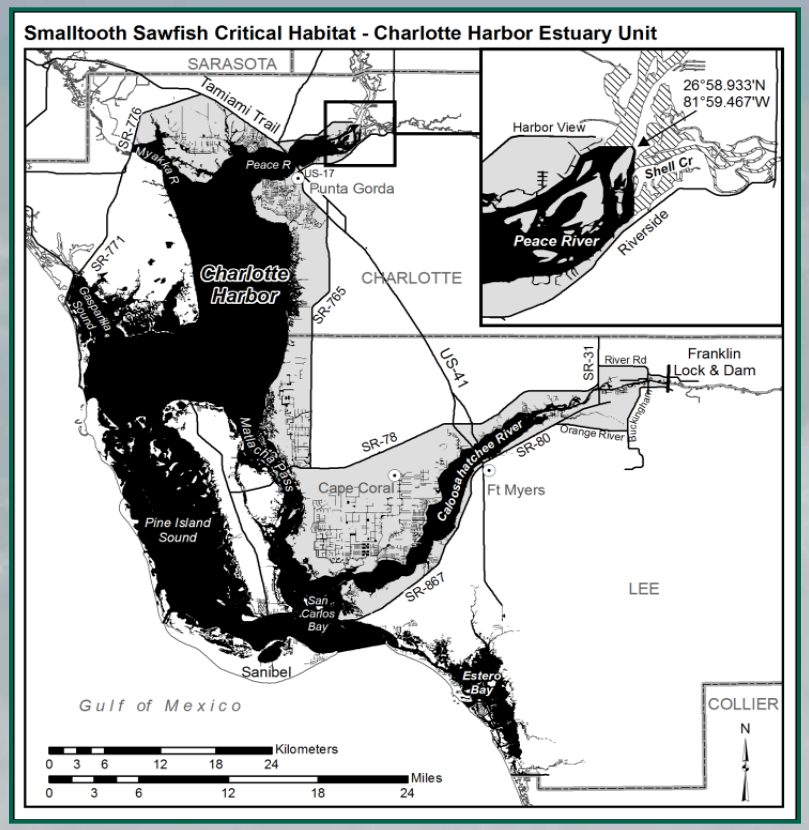
SMALLTOOTH SAWFISH

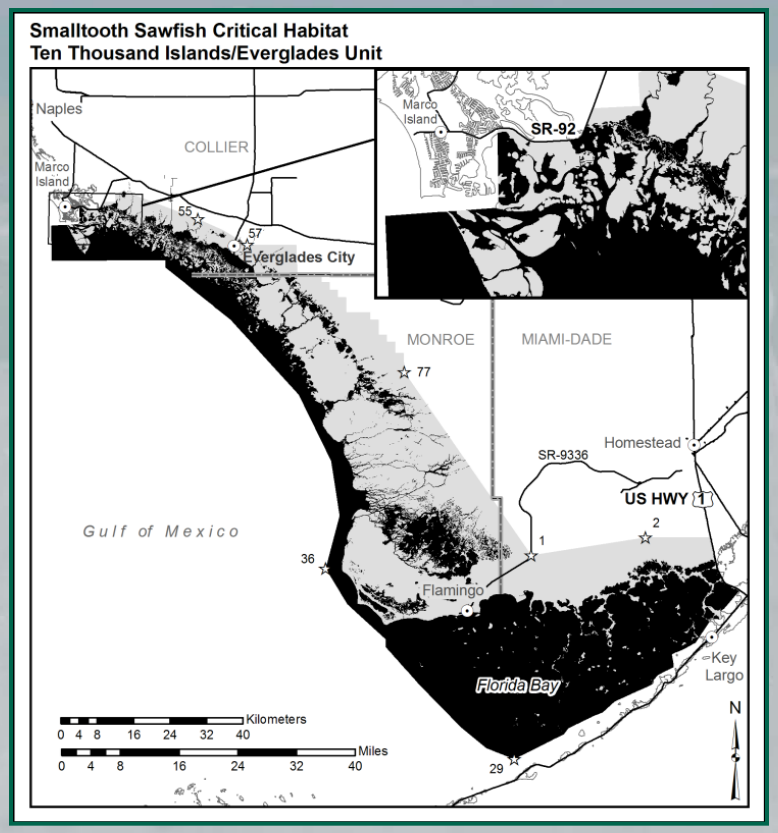
The ***endangered*** **smalltooth sawfish** inhabits coastal areas near mangroves and estuaries. Larger animals may be found further offshore. Sawfish have a long, flat snout edged with pairs of teeth used to locate, stun, and kill prey. They swim into schools of fish and thrash their saw from side to side, wounding and killing the fish which they then recover and eat. Smalltooth sawfish usually grow to about 18 feet in length and are related to sharks, skates, and rays.

Endangered Nearshore Species

SMALLTOOTH SAWFISH

Critical habitat is an area deemed essential to the conservation of a species. Smalltooth sawfish critical habitat was designated on September 2, 2009 (74 FR 45353) in two coastal areas of south/southwest Florida: the Charlotte Harbor Estuary Unit and the Ten Thousand Islands/Everglades Unit.





Threatened Nearshore Species

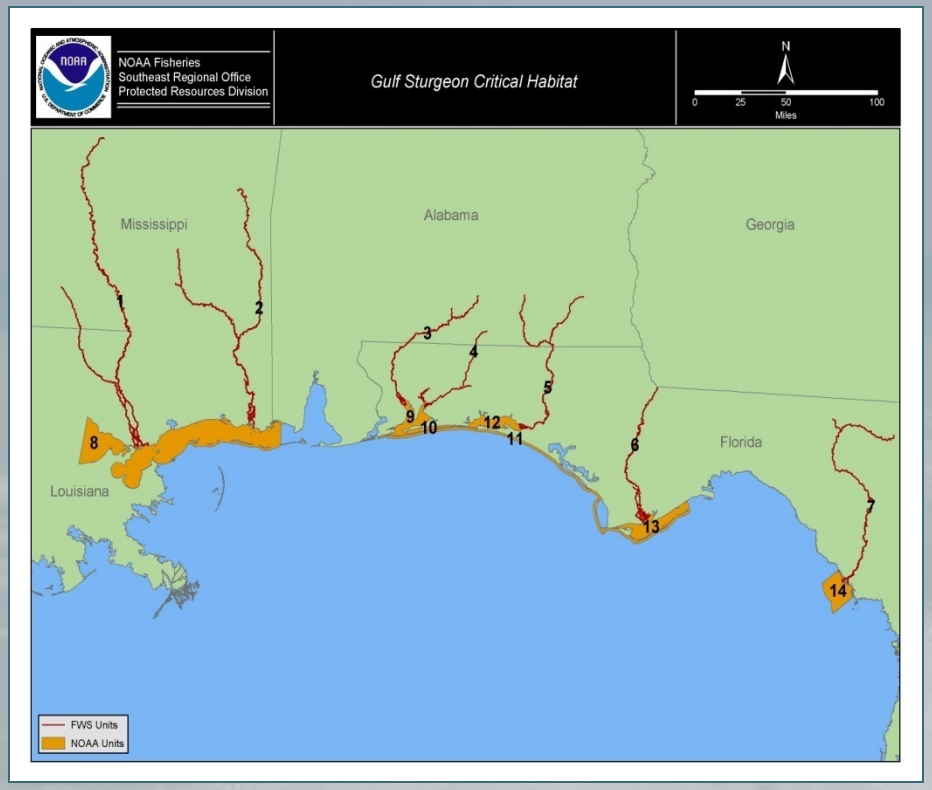
GULF STURGEON

The **Gulf sturgeon** is a ***threatened species.*** This species represents one of the oldest lineages of living fish. They are an anadromous fish that migrates from marine habitats into freshwater rivers to spawn.

Gulf sturgeon reside in rivers during summer and in marine environments during winter. Sturgeon have rows of armored plates along their sides and back, called scutes, and a vacuum-like mouth to forage on benthic invertebrates. Sturgeon are light colored to dark brown and have a white under-belly. They can grow to 8 feet in length and weigh 200 pounds.

Threatened Nearshore Species

GULF STURGEON



Areas shaded yellow are designated as Gulf sturgeon critical habitat.

Gulf sturgeon critical habitat was designated on March 19, 2003 (68 FR 13370). NMFS and the U.S. Fish and Wildlife Service jointly designated 14 geographic areas (units) that include freshwater rivers and tributaries, as well as marine and estuarine environments. The critical habitat units encompass approximately 1,730 river miles and 2,333 square miles of estuarine and marine habitat, east of the mouth of the Mississippi to the Suwannee River in Florida.

Threatened Nearshore Species

ELKHORN and STAGHORN CORALS

Elkhorn *(Acropora palmata)* and staghorn *(A. cervicornis)* corals are ***threatened species.*** These stony corals were once the most abundant and most important species on Caribbean coral reefs.

Elkhorn coral is the largest of all species of *Acropora*. Colonies are flattened to near round with frond-like branches. Branches typically radiate outward from a central trunk. Elkhorn coral generally grows in water 3 to 15 feet deep on the seaward face of the reef.

Staghorn coral colonies are antler-like with cylindrical, straight, or slightly curved branches. Staghorn coral typically grows in fore- and back-reef areas with water 15 to 45 feet deep.

*Critical Habitat is designated off the east coast of Florida and the Caribbean. None is designated in the Gulf of Mexico.

OFFSHORE SPECIES

Endangered Offshore Species

SEA TURTLES

The *endangered* **leatherback sea turtle** is the only sea turtle with a soft leathery shell. They are the largest of the sea turtles, measuring 4 to 8 feet long and weighing 650 to 1,300 pounds. They can dive to great depths in search of jellyfish, which comprise their main diet.

Leatherbacks make long-distance migrations from feeding grounds to nesting beaches. They spend their entire lives in offshore waters, coming inshore only to mate and nest. They are often observed alone at sea, but adults sometimes congregate off nesting beaches or while feeding on concentrations of prey.

Endangered Offshore Species

SPERM WHALE

Sperm whales are ***endangered*** and found in offshore waters of the Gulf of Mexico (>200m). They typically dive deep for 40-45 minutes and rest at the surface for 8-10 minutes between dives. Their square-shaped head comprises a significant portion of their body length and they have a small dorsal fin. Sperm whales are often seen resting log-like at the surface. Females and young form small groups, and immature males often form bachelor groups.

Common Offshore Species

WHALES

Cuvier's beaked whales are elusive and rarely seen at the surface, which is why their population status is unknown. These whales vary in coloration from rusty-brown, dark gray, or tan. They prefer deep water, avoid shallow coastal areas, and are known to travel in groups of 2 to 7.

Bryde's whales (pronounced "BREW-days") are perhaps the only baleen whale that regularly inhabit the Gulf of Mexico. This species has been regularly sighted in the northeastern Gulf of Mexico and may be found elsewhere seaward of the shelf edge. They have dark gray, slender bodies and long ventral throat grooves. They travel alone or in small groups.

Common Offshore Species

DOLPHINS

Pantropical spotted dolphins occur along the continental slope. Juveniles are gray, spotting as they age. These dolphins are extremely active, frequently breaching the surface as they travel. Group sizes range from a few to 1000s.

Rough-toothed dolphins are deep-water dolphins. They have cone-shaped heads and large pointed flippers. These dolphins are fast swimmers and sometimes breach with a low, arc-shape at the surface. They travel in groups of 10s to 100s.

Clymene dolphins are found seaward of the continental shelf edge. They are tri-colored with a dark gray back, gray sides, and a white belly. They are often observed in groups of up to 50. They are frequently observed making full spins when breaching at the surface.

MARINE MAMMALS

Other Offshore Species of Marine Mammals In The Gulf Of Mexico Include…

- pygmy sperm whale
- dwarf sperm whale
- melon-headed whale
- pygmy killer whale
- false killer whale
- short-finned pilot whale
- Fraser's dolphin
- Atlantic spotted dolphin
- spinner dolphin
- striped dolphin
- bottlenose dolphin
- killer whale (orca)
- Blainville's beaked whale
- Sowerby's beaked whale
- Gervais' beaked whale
- minke whale

Gulf of Mexico

PROTECTED SPECIES

Protected species inhabit nearly all marine environments from the shallow waters of estuaries to the deep ocean. Because many human activities occur in these same areas, it is important that each of us remembers to always be an active steward of the marine environment and help protect our living marine resources.

Through science and conservation programs with our partners, NOAA Fisheries Service continues to maintain sustainable populations and protect the ecosystems upon which these species depend.

For a complete list of protected species in the Gulf of Mexico and additional information about these species, please visit the NMFS Southeast Regional Office Web site at:

http://sero.nmfs.noaa.gov/pr/pr.htm