



## U.S. Fish & Wildlife Service

### Frequently Asked Questions

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### U.S. Fish & Wildlife Service and National Marine Fisheries Service Gulf Sturgeon Final Critical Habitat

**Q1: When was the [Gulf sturgeon](#) listed as a threatened species? Why was it listed?**

A1: The [U.S. Fish & Wildlife Service](#) (FWS) and the [National Marine Fisheries Service](#) (NOAA Fisheries) (collectively, the Services) jointly listed the Gulf sturgeon as a threatened species on September 30, 1991. The species decline was brought about by extensive over harvest over 100 years ago. Populations could not recover because commercial harvest continued into the 1980s at which time harvest was restricted by the States. In addition, there has been a reduction in the overall habitat due to dams and other barriers, sedimentation, and degradation of water quality.

**Q2: What is critical habitat?**

A2: Critical habitat is a term used in the [Endangered Species Act](#) (ESA) of 1973, as amended. It refers to specific geographic areas that are essential for the conservation of a threatened or endangered species and that may require special management consideration or protection. These areas do not necessarily have to be occupied by the species at the time of designation. This means that areas must be identified which will allow for the protection of the current population, and any population increases that may be required to achieve recovery (allowing the species to be removed from the endangered and threatened species list).

**Q3: Why are the Services proposing critical habitat for the Gulf sturgeon?**

A3: Section 4(a)(3) of the ESA, as amended, and implementing regulations at 50 CFR 424.12 require that, to the maximum extent prudent and determinable, we designate critical habitat at the time a species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1)) state that designation of critical habitat is not prudent when one or both of the following situations exist--(1) The species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of such threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

Initially, we determined that designation of critical habitat was not prudent. However, that determination was challenged in a lawsuit. The court ultimately ordered us to reconsider our previous decision not to designate critical habitat and submit for publication a final decision by February 28, 2003. As described in our proposed rule to designate critical habitat for the Gulf sturgeon, we have now determined that it is prudent to propose the designation of critical habitat for this species. We made this determination, in part, because there may be some additional conservation benefits to the species by designating critical habitat on riverine, estuarine, and marine areas that are essential to the conservation of the Gulf sturgeon. Critical habitat will primarily benefit the sturgeon through the consulting mechanism under section 7 of the Act. For example, other Federal agencies will be required to consult with us on actions they carry out, fund, or authorize, to ensure that their actions will not destroy or adversely modify critical habitat. In this way, a critical habitat designation will

protect areas that are necessary for the conservation of the species. It may also serve to enhance awareness within Federal agencies and the general public of the importance of Gulf sturgeon habitat and the need for special management considerations.

**Q4: What geographic areas are being proposed as critical habitat for the Gulf sturgeon?**

A4: We are [designating portions of the following Gulf of Mexico rivers and tributaries](#) as critical habitat for the Gulf sturgeon:

- **Unit 1:** Pearl River System in St. Tammany and Washington Parishes in Louisiana and Walthall, Hancock, Pearl River, Marion, Lawrence, Simpson, Copiah, Hinds, Rankin, and Pike Counties in Mississippi;
- **Unit 2:** Pascagoula River System in Forrest, Perry, Greene, George, Jackson, Clarke, Jones, and Wayne Counties, Mississippi;
- **Unit 3:** Escambia River System in Santa Rosa and Escambia Counties, Florida and Escambia, Conecuh, and Covington Counties, Alabama;
- **Unit 4:** Yellow River System in Santa Rosa and Okaloosa Counties, Florida and Covington County, Alabama;
- **Unit 5:** Choctawhatchee River System in Holmes, Washington, and Walton Counties, Florida and Dale, Coffee, Geneva, and Houston Counties, Alabama;
- **Unit 6:** Apalachicola River System in Franklin, Gulf, Liberty, Calhoun, Jackson, and Gadsen Counties, Florida; and
- **Unit 7:** Suwannee River System in Hamilton, Suwannee, Madison, Lafayette, Gilchrist, Levy, Dixie, and Columbia Counties, Florida.

Also included are portions of the following estuarine and marine areas:

- **Unit 8:** Lake Pontchartrain, Lake St. Catherine, The Rigolets, Little Lake, Lake Borgne, and Mississippi Sound in Jefferson, Orleans, St. Tammany, Jefferson, Orleans, and St. Bernard Parish, Louisiana, Hancock, Jackson, and Harrison Counties in Mississippi, and in Mobile County, Alabama;
- **Unit 9:** Pensacola Bay in Escambia and Santa Rosa Counties, Florida;
- **Unit 10:** Santa Rosa Sound in Escambia, Santa Rosa, and Okaloosa Counties, Florida;
- **Unit 11:** Florida Nearshore Gulf of Mexico waters in Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf Counties in Florida;
- **Unit 12:** Choctawhatchee Bay in Okaloosa and Walton Counties, Florida;
- **Unit 13:** Apalachicola Bay in Gulf and Franklin County, Florida; and
- **Unit 14:** Suwannee Sound in Dixie and Levy Counties, Florida.

**Q5: Were there any changes from the proposed rule?**

A5: Seven changes have been made from the proposed to the final rule designating Gulf sturgeon critical habitat--calculation of total area included in designation, verification of bridge position in Unit 1, additional specifics on fish location in Unit 2, inclusion of identical amendments to both 50 CFR parts 17 and 226, and exclusion of areas in Units 2, 8 and 9 under section 4(b)(2) of the Act (see Q26 for information regarding the exclusions).

For the proposed rule, river kilometers (and river miles) were measured with U.S. Army Corps of Engineers (USACE) mileage tables, when available for a particular river reach. When not reported in the USACE mileage tables, several Geographic Information System (GIS) data layers were used to map all units and to calculate mileages, including data from the National Oceanic and Atmospheric Administration, Environmental Systems Research Institute, Inc., and the U.S. Geological Survey (USGS). For the final rule, we still relied on the USACE mileage tables to calculate mileages when available for a particular river reach, but the remaining reaches were measured and mapped using the National Hydrography Dataset from the USGS at a scale of 1:100,000 (2001-2002 data set). This data layer, not available to us during the proposed rule, is available for the entire range of the mapped Gulf sturgeon critical habitat and has a higher resolution than the GIS data layers used for the proposed rule maps. Greater resolution results in the ability of the mapper to see and measure more of the rivers natural bends, thereby resulting in higher and more accurate river lengths. This change from using different data layers resulted in an additional river mileage of 259 rkm (161 rmi), which is a more accurate reflection, in reported total river kilometers and miles for all States, with no inclusion of additional areas.

The changes stated below do not include those attributed to our more fine-scale mapping from the proposed rule.

Unit 1: On the Bogue Chitto River, Pike County, Mississippi, we reduced critical habitat in this river reach by approximately 3.2 km (2 mi) due to an error in what we believed to be the location of Quinn Bridge. We have documentation of a Gulf sturgeon sighting 1.6 km (1 mi) north of Quinn Bridge. In the proposed rule, we were given information which stated that Quinn Bridge was located on Mississippi (MS) Highway 570. Since the sighting was 1.6 km (1 mi) upstream of Quinn Bridge (MS Highway 570), in the proposed rule we ended the

designation upstream of Quinn Bridge at Lazy Creek to encompass the fish location and to boundary at an area easily identifiable. We now know that Quinn Bridge is located along MS Highway 44, so in order to include the fish location and to boundary the designation at an area easily identifiable, we have included up to MS Highway 570 in the unit, which is the first crossing north of MS Highway 44. See "Map 1.1" to clarify locations of MS Highway 570 and MS Highway 44. See "Map 1.1" to clarify locations of MS Highway 570 and MS Highway 44.

Unit 2: On the Bouie River, Forrest County, Mississippi, we received more specific information during the comment period on the location of a Gulf sturgeon captured above the gravel pits above Glendale Road in 1977. This fish was located approximately 0.80 rkm (0.50 rmi) above Glendale Road, not further upstream as originally believed. For ease of identification, we have included up to the southern-most road crossing of Interstate 59. We have reduced this river reach by 14.5 rkm (9.0 rmi).

In the proposed rule, we inadvertently provided different amendments to be included in 50 CFR part 17 (FWS) and part 226 (NMFS). For the final rule we are making identical amendments to both parts. The amendment includes (1) maps and textual unit descriptions of all 14 critical habitat units, (2) the primary constituent elements essential for the conservation of Gulf sturgeon, and (3) a description of regulatory jurisdiction.

**Q6: How large of an area does the Gulf sturgeon critical habitat proposal encompass?**

A6: The [14 geographic areas](#) (units) encompass approximately 1,730 river miles (rmi) and 2,333 square miles (mi<sup>2</sup>) of estuarine and marine habitat.

**Q7: Why is the critical habitat designation such a broad geographic range across four States? Doesn't the ESA state that the entire range will not be designated?**

A7: After a thorough analysis, the Services concluded that this designation should include critical habitat units within the major river systems and associated estuarine and marine environments that support the seven currently reproducing sub-populations. This designation includes a significant portion, but not all, of the species' current and historic range. It is our determination that the 14 units included in the final rule include the habitats essential for the conservation of the Gulf sturgeon.

**Q8: If the entire historic range was not included, which areas were excluded?**

A8: Gulf sturgeon have been reported from other river systems. Some of these systems historically supported a commercial fishery (e.g., Mobile River, Ochlockonee River) and some may support small reproducing populations (e.g., Techefuncte River, Ochlockonee River, Mobile River); however, we have no evidence at this time that these areas are essential to the conservation of the species and we have not proposed them as critical habitat.

The data available to us are insufficient to support that Lake Maurepas, Breton and Chandeleur Sounds, the Mississippi River Delta, St. Louis, Biloxi, Mobile, Perdido, St. Andrews, St. Joseph, Ochlockonee, or Apalachee Bays are essential to the conservation of the species. Although some Gulf sturgeon from the seven sub-populations may occasionally use these bays for winter feeding, there are insufficient data to support these bays' regular winter use or importance. Therefore, we have not included these bays in our designation of critical habitat.

**Q9: Are Gulf sturgeon located outside of the designated critical habitat areas still protected?**

A9: Yes. Because the Gulf sturgeon is a listed species, they are protected regardless of whether they are inside or outside of an area designated as critical habitat. When critical habitat is designated, Federal agencies are also required to ensure that their activities will not destroy or adversely modify critical habitat. Also, as a listed species, the Gulf sturgeon is protected from "take" throughout its range regardless of whether critical habitat has been designated. "Take" is defined to include harass, harm, pursue, hunt, shoot, wound, kill, trap, or collect; or to attempt any of these.

**Q10: How did the Services determine which areas to designate as critical habitat?**

A10: Biologists identified the physical and/or biological habitat features needed for life and successful reproduction of the species. These features are known as **primary constituent elements** and include, but are not limited to:

- space for individual and population growth and for normal behavior;
- cover or shelter;
- food, water, air, light, minerals, or other nutritional or physiological requirements;

- sites for spawning and rearing offspring; and
- habitats that are protected from disturbances or are representative of the historic geographical and ecological distributions of a species.

By law, we are required to identify sufficient areas containing these characteristics to ensure the conservation of the species.

**Q11. What are the primary constituent elements for the Gulf sturgeon?**

A11. Based on the best available information, primary constituent elements essential for the conservation of the Gulf sturgeon include the following:

- (1) Abundant food items, such as detritus, aquatic insects, worms, and/or molluscs, within riverine habitats for larval and juvenile life stages; and abundant prey items, such as amphipods, lancelets, polychaetes, gastropods, ghost shrimp, isopods, molluscs and/or crustaceans, within estuarine and marine habitats and substrates for subadult and adult life stages.
- (2) Riverine spawning sites with substrates suitable for egg deposition and development, such as limestone outcrops and cut limestone banks, bedrock, large gravel or cobble beds, marl, soapstone, or hard clay;
- (3) Riverine aggregation areas, also referred to as resting, holding, and staging areas, used by adult, subadult, and/or juveniles, generally, but not always, located in holes below normal riverbed depths, believed necessary for minimizing energy expenditures during fresh water residency and possibly for osmoregulatory functions;
- (4) A flow regime (i.e., the magnitude, frequency, duration, seasonality, and rate-of-change of fresh water discharge over time) necessary for normal behavior, growth, and survival of all life stages in the riverine environment, including migration, breeding site selection, courtship, egg fertilization, resting, and staging, and for maintaining spawning sites in suitable condition for egg attachment, egg sheltering, resting, and larval staging;
- (5) Water quality, including temperature, salinity, pH, hardness, turbidity, oxygen content, and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages;
- (6) Sediment quality, including texture and other chemical characteristics, necessary for normal behavior, growth, and viability of all life stages; and
- (7) Safe and unobstructed migratory pathways necessary for passage within and between riverine, estuarine, and marine habitats (e.g., an unobstructed river or a dammed river that still allows for passage).

**Q12: Does a critical habitat designation affect all activities that occur within the designated area?**

A12: An area designated as critical habitat is not a refuge or a sanctuary for the species. Only activities that involve a Federal permit, license, or funding and that may affect critical habitat will require consultation. Most use of critical habitat by the public will not be affected by this critical habitat designation. Most activities such as recreational boating, canoeing, swimming, and existing commercial boat traffic likely would not involve a Federal action that may affect critical habitat and therefore would not likely trigger a consultation requirement.

**Q13: What does it mean "to consult?"**

A13: Consultation is a process by which Federal agencies use the Services' expertise to evaluate the potential effects of a proposed action on ESA listed species and their critical habitats. Consultation may also identify alternatives to the proposed action to avoid adverse effects on listed species and their habitats.

**Q14: What is the extent of the additional consultation burden to the Federal agency? To a permit applicant?**

A14: Federal agencies are already required to consult with the Services under the ESA whenever a proposed action might impact a listed species or its habitat. Thus, the designation of critical habitat will not likely increase the consultation burden to either the Federal agency or the permit applicant.

**Q15: Will the critical habitat designation delay Federal decisions on permits or funding?**

A15: Under the ESA, we have specific time frames in which to complete the consultation process with action agencies. These time frames remain the same whether or not there is critical habitat within the project area. Designation of critical habitat for the Gulf sturgeon notifies the Federal action agencies and the public that permits and other authorizations for activities within these designated critical habitat areas must comply with section 7 consultation requirements. For each section 7 consultation, we already review the direct and indirect effects of the proposed projects on Gulf sturgeon, and will continue to do so for critical habitat now that it is designated.

**Q16: What activities could adversely affect critical habitat and may require special management considerations for Gulf sturgeon?**

A16: Activities that may affect critical habitat may include, but are not limited to, the following:

- dredging,
- dredged material disposal,
- channelization,
- in-stream mining,
- land uses which cause excessive turbidity or sedimentation,
- impoundments or dams,
- water diversion,
- dam operations,
- release of chemicals, biological pollutants, heated effluents into surface water connected groundwater via point sources or dispersed non-point.

**Q17. What does it mean to "destroy" or "adversely modify" critical habitat?**

A17: "Destruction or adverse modification of designated critical habitat" is defined as a direct or indirect alteration that appreciably diminishes the value of the critical habitat for both the survival and recovery of the species (50 CFR 402.02). Such alterations include, but are not limited to, adverse changes to the physical or biological features, i.e., the primary constituent elements, that were the basis for determining the habitat to be critical.

The relationship between a species' survival and its recovery has been a source of confusion to some in the past. We believe that a species' ability to recover depends on its ability to survive into the future when its recovery can be achieved; thus, the concepts of long-term survival and recovery are intricately linked. However, in the March 15, 2001, decision of the United States Court of Appeals for the Fifth Circuit ([Sierra Club v. U.S. Fish and Wildlife Service et al.](#), 245 F.3d 434) regarding our previous not prudent finding, the Court found our definition of destruction or adverse modification as currently contained in 50 CFR 402.02 to be invalid. In response to this decision, we are reviewing the regulatory definition of adverse modification.

**Q18: Are all areas within the proposed Gulf sturgeon critical habitat boundaries considered critical habitat?**

A18: In order for an area to be designated as critical habitat, the area has to contain primary constituent elements, which are the physical and biological elements essential to support the life cycle needs of the species (e.g., spawning areas, staging areas, resting areas, feeding areas, migratory corridors, etc.). Critical habitat does not include existing developed sites such as dams, piers, marinas, bridges, boat ramps, exposed oil and gas pipelines, oil rigs, and similar structures or designated public areas.

**Q19: What specific methods were used to propose critical habitat for the Gulf sturgeon?**

A19: This designation is based on the best scientific information available concerning the species' present and historic range, habitat, biology, and threats. We reviewed and summarized the current information available on the Gulf sturgeon. The information used included known locations; the final listing rule for the Gulf sturgeon; recent biological surveys and reports; peer-reviewed literature; our recovery plan; and discussions and recommendations from Gulf sturgeon experts.

We also considered several factors in this evaluation: (1) maintaining overall genetic integrity and natural rates of inter-river genetic exchange, thereby minimizing the potential for inbreeding, (2) retaining potentially important selective pressure at the margins of the species' range by protecting the eastern- and western-most subpopulations, (3) decreasing the extinction risk of a subpopulation by protecting adjacent subpopulations that can provide a rescue effect, if needed, (4) avoiding the potential for subpopulation extirpation from environmental catastrophes, and (5) protecting sufficient habitat to support conservation of the species.

**Q20: What is the impact of designating critical habitat on private lands and private landowners?**

A20: The designation of critical habitat on private land will have no impact on private landowner activities that do not require Federal involvement, funding, or permits. The designation of critical habitat is only applicable to Federal activities.

**Q21: Do listed species in critical habitat areas receive more protection?**

A21: Species that are listed as endangered or threatened are protected regardless of whether they are inside or outside of an area designated as critical habitat. When critical habitat is designated, Federal agencies are also required to ensure that their activities will not destroy or adversely modify critical habitat.

**Q22: If a listed species is already protected by the ESA and Federal agencies already consult with the Services, what benefit does critical habitat provide to the species?**

A22: Critical habitat provides non-regulatory benefits to the species by informing the public of areas that are important for the species' recovery and where conservation actions would be most effective. Designation of critical habitat can help focus conservation activities for a listed species by identifying areas that contain the physical and biological features that are essential for conservation of that species, and can alert the public, as well as land-managing agencies, to the importance of those areas.

**Q23: Must Federal agencies consult with the Services even where critical habitat has not been designated?**

A23: Even when there is no critical habitat designation, Federal agencies must consult with the Services to ensure any action they carry out, fund, or authorize is not likely to jeopardize the continued existence of a listed species. Where critical habitat is designated, a consultation also ensures that the critical habitat is not destroyed or adversely modified.

**Q24: Does the ESA consider economic consequences as a part of designating critical habitat?**

A24: Unlike for ESA listing decisions, the Services must take into account the economic impact, as well as any other relevant impacts, of specifying any particular area as critical habitat. The Secretaries of the Interior and Commerce may exclude any area from critical habitat if they determine that the benefits of excluding it outweigh the benefits of specifying the area as a part of critical habitat, unless we determine that the failure to designate the area as critical habitat will result in the extinction of the species. We conducted an analysis of the economic impacts of designating these areas as critical habitat and considered it in our final critical habitat designation.

**Q25: What is the impact of a critical habitat designation on economic development?**

A25: Following the close of the comment period on the draft economic analysis, a final revision was completed which incorporated public comments on the draft analysis. Based on comments, the cost of consultations was revised. Subsequently, the revised economic analysis concluded that the designation may result in approximately \$3,310,000 to \$4,953,000 per year in potential economic impact due to the total effects of critical habitat, including those effects resulting co-extensively from listing the species.

A more detailed discussion of our analyses are contained in the Draft Economic Analysis of Critical Habitat Designation for the Gulf Sturgeon and the Economic Analysis of Critical Habitat Designation for the Gulf Sturgeon. Both documents are included in the supporting documentation for this rulemaking and available at the Panama City Field Office, U.S. Fish and Wildlife Service, and on the Internet at <http://alabama.fws.gov/gf/>.

**Q26: Were any areas excluded because of economic or other relevant impacts?**

A26: Yes. Based on the draft and final economic analyses, and in consideration of all other relevant impacts of the designation, the Services are excluding under section 4(b)(2) of the Endangered Species Act major shipping channels, as identified on standard navigation charts and marked by buoys, in the following three units:

(1) Unit 2. Pascagoula River System in Forrest, Perry, Greene, George, Jackson, Clarke, Jones, and Wayne Counties, Mississippi – The major shipping channel of this unit is the southernmost 2.4 km (1.5 mi) of the Pascagoula River. The specific area excluded extends from the river mouth (rkm 0 (rmi 0)) to the river crossing with the CSX Railroad bridge, approximately 2.4 km (1.5 mi) north of the river mouth. This channel is generally marked on the U.S. Army Corps of Engineers' Alabama-Mississippi stream mileage tables with drainage areas.

(2) Unit 8. Lake Pontchartrain, Lake St. Catherine, The Rigolets, Little Lake, Lake Borgne, and Mississippi Sound in Jefferson, Orleans, St. Tammany, and St. Bernard Parish, Louisiana, Hancock, Jackson, and Harrison Counties in Mississippi, and in Mobile County, Alabama – The major shipping channel of this unit is the Gulf Intracoastal Waterway and the approach channels to the Port of Pascagoula. Both channels are generally marked on U.S. Geological Survey topographic maps and maps published for the public by the



Florida:	Panama City, FWS Ecological Services Office	(850/769-0552)
	Jacksonville, FWS Ecological Services Office	(904/232-2580)
Louisiana:	Lafayette, FWS Ecological Services Office	(337/291-3100)
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