

would use these areas, and therefore, no evidence that they are essential to the conservation of the species. When data documented fairly recent use of additional tributaries, those tributaries were included. For example, the Pascagoula River subpopulation has sections of the Bouie River, the Leaf River, and the Chickasawhay River designated as critical habitat because data support sturgeon use.

*Comment 31:* One commenter asked if any of the proposed critical habitat is in the State of Georgia.

*Our Response:* No. Although the historic range of the Gulf sturgeon includes the Flint River, and possibly parts of the Chattahoochee River, we determined that none of the historic habitat in Georgia is essential to the conservation of the Gulf sturgeon.

*Comment 32:* One commenter suggested that the critical habitat designation should be limited to a few specific areas within the range of the Gulf sturgeon that are most important to their continued survival (e.g., spawning areas, nursery areas, summer holding areas, and fall and winter foraging areas).

*Our Response:* We considered the biological basis for a more site-specific approach and concluded that it would not secure all biological features essential for the conservation of the species. The site-specific approach would neglect the importance of a migration corridor between spawning, resting, and feeding areas. Also, young-of-year and possibly juvenile sturgeon (less than 5 kg (11 lbs) (Mason and Clugston, 1993)) actively forage throughout the riverine system.

*Comment 33:* One commenter requested that we discuss our rationale for not designating unoccupied areas when the Services had previously stated that unoccupied habitat would be necessary for Gulf sturgeon recovery.

*Our Response:* As we stated in the proposed rule, since approval of the Recovery Plan in 1995 and our 1998 "not prudent" finding, the science of conservation biology has matured. The methods section cites numerous recent publications that contributed to our decision to select the areas we did and why they constitute habitat sufficient for the conservation of the species. We have also collected significant new biological information on this species. For example, we now have a better understanding on status of the Pearl River system subpopulation; we are confident that adult Gulf sturgeon are accessing spawning habitats above Pools Bluff Sill and Bogue Chitto Sill during high flows; spawning was confirmed in 1999 on the Pascagoula River

subpopulation; usage of the Chickasawhay River, a major tributary to the Pascagoula River, was recently documented; spawning was confirmed in 2001 at five locations on the Escambia River; young-of-year have been confirmed on the Yellow River system and population estimates are 580 Gulf sturgeon 1 m (3.3 ft) or greater in size; additional suitable spawning sites were documented on the Apalachicola River in 2002; and between 1993 and 1998, additional spawning sites were confirmed on the Suwannee River population. We believe that what we have designated for the Gulf sturgeon is based on the best available scientific information and includes those areas essential to the conservation of the Gulf sturgeon.

*Comment 34:* Three commenters requested that the Services provide additional detail or quantify the specific habitat requirements for each life history stage, specifically abundant prey, flow regime, water temperature, salinity, pH, oxygen content, etc.

*Our Response:* We have summarized the current knowledge of the species, including life history requirements in the "Background" section of this rule. However, data are not yet available to more quantitatively express the primary constituent elements of Gulf sturgeon critical habitat. To make the critical habitat rule adaptive to increasing knowledge, we have kept the primary constituent elements general. When consultations on projects occur, biologists will use the best available science available at the time of consultation to determine whether the functions of those elements would be adversely modified by the proposed Federal action. Research is ongoing, and as those data are collected, we expect to understand better Gulf sturgeon and its life history requirements.

*Comment 35:* One commenter stated that habitat is identified primarily for adults (spawning sites, resting areas, winter feeding), but not for larvae, juvenile, and subadult life stages. S/he also suggested a need to cite specific studies rather than using the term "gathered all available" data.

*Our Response:* The commenter is referring to statements in the "Methods" section, which is written in general terms to explain how we decided which riverine, estuarine, and marine areas to include as critical habitat. We disagree with the commenter that the rule ignores life stages besides the adult stage. We stated in the proposed rule that we included riverine habitat from the river mouth up to and including spawning grounds to provide sufficient habitat for the riverine life stages of Gulf

sturgeon. These life stages require habitat for summer resting or staging areas, juvenile feeding, entire young-of-year life cycle (including larval stages), passage throughout the river (protects all life stages), and passage into and out of estuarine habitat for adults and subadults. All of the selected areas are known to be used by Gulf sturgeon for some portion of their life cycle. Subadult and adult sturgeon use estuarine and marine areas for feeding and passage between river systems. Designation of critical habitat units in estuaries and bays adjacent to the riverine units described above would protect both passage of sturgeon to and from their feeding and spawning grounds and also the abundance of estuarine and marine prey for juvenile and adult sturgeon.

Specific references used for making our determination are cited throughout the "Background" and "Critical Habitat Unit Descriptions" sections of the proposed and final rules. A complete list of all references cited is presented in the "References Cited" section of this final rule.

*Comment 36:* One commenter stated that the areas included in the proposal are those where studies have been directed toward sturgeon and that it should not be assumed that other rivers do not have critical habitat just because sturgeon have not been found in routine fishery surveys. They also stated that routine fishery surveys can and have missed the presence of sturgeon.

*Our Response:* We have based our designation on the best scientific data available. However, the level of research and status surveys conducted on many subpopulations is limited. Because of the limited availability of data specific to each river system and specific to the Gulf sturgeon's use of the marine and estuarine environment, we acknowledge that habitat other than that identified in this final rule may later be found to be essential to the conservation of Gulf sturgeon. To the extent feasible, we will continue to conduct and support surveys, research, and conservation actions on the species and its habitat in areas designated and not designated as critical habitat. If additional information becomes available on the species' biology, distribution, and threats, we will evaluate the need to designate additional critical habitat, delete or reduce critical habitat, or refine the boundaries of critical habitat. Gulf sturgeon in areas not included as critical habitat will continue to receive protection under the section 7 jeopardy standard and the section 9 prohibitions on take.