

Rosa Island (defined at 33 CFR 80.810 (g)). The eastern boundary is the Florida State Highway 399 Bridge at Gulf Breeze, Florida. The lateral extent of unit 9 is the MHW line on each shoreline of the included waterbodies.

The Pensacola Bay system includes five interconnected bays, including Escambia Bay, Pensacola Bay, Blackwater Bay, East Bay, and the Santa Rosa Sound. The Santa Rosa Sound is addressed separately in unit 10. The Escambia River and its distributaries (Little White River, Dead River, and Simpson River) empty into Escambia Bay, including Bass Hole Cove, Saultsma Cove, and Macky Bay. The Yellow River empties into Blackwater Bay. The entire system discharges into the Gulf of Mexico, primarily through a narrow pass at the mouth of Pensacola Bay.

The Pensacola Bay system provides winter feeding and migration habitat for Gulf sturgeon from the Escambia River and Yellow River subpopulations. Over the past four years, FDEP researchers have conducted tracking studies in the Pensacola Bay system to observe Gulf sturgeon winter migrations. They have identified specific areas in the bays where Escambia River and Yellow River Gulf sturgeon collect, or migrate through, during the fall and winter season. These studies also identified two main habitat types where Gulf sturgeon concentrate during winter months. Movement is generally along the shoreline area of Pensacola Bay. Gulf sturgeon showed a preference for several areas in the bay, including Redfish Point, Fort Dickens, and Escribano Point, near Catfish Basin (FWS, 1998; and Craft *et al.*, 2001). Sandy shoal areas, located along the south and east side of Garcon Point, south shore of East Bay (Redfish Point area) and near Fair Point, appear to be commonly used, especially in the fall and early spring. During midwinter, sturgeon are commonly found in deep holes located north of the barrier island at Ft. Pickens, south of the Pensacola Naval Air Station, and at the entrance of Pensacola Pass. The depth in these areas ranges from 6 to 12.1 m (20 to 40 ft). Other areas where tagged fish were frequently located include Escribano Point, near Catfish Basin, and the mouth of the Yellow River. Previous incidental captures of Gulf sturgeon have been recorded in Pensacola Bay, Big Lagoon, and Bayou Grande (Reynolds, 1993; and Lorio, 2000).

*Unit 10. Santa Rosa Sound in Escambia, Santa Rosa, and Okaloosa Counties, Florida*

Unit 10 includes the Santa Rosa Sound, bounded on the west by the Florida State Highway 399 bridge in Gulf Breeze, Florida and the east by U.S. Highway 98 bridge in Fort Walton Beach, Florida. The northern and southern boundaries of unit 10 are formed by the shorelines to the MHW line or by the entrance to rivers, bayous, and creeks.

The Santa Rosa Sound is a lagoon between the mainland and Santa Rosa Island that connects Pensacola Bay in the west with Choctawhatchee Bay in the east. The Sound extends east to west approximately 57.9 km (35.9 mi) and varies in width between 0.32 and 3.5 km (0.2 to 2.2 mi) (FDEP, 1993). The Intracoastal Waterway transects the sound. The Santa Rosa Sound is designated as critical habitat because we believe it provides one continuous migratory pathway between Choctawhatchee Bay, Pensacola Bay, and the Gulf of Mexico for feeding and genetic interchange. Within the last 3,000 years, periodic shoaling closed the opening of Choctawhatchee Bay to the Gulf of Mexico. For many years, the Santa Rosa Sound provided the only way for Choctawhatchee River Gulf sturgeon to migrate to the Gulf of Mexico (Wakeford, 2001). Recent locations of subadult and adult Gulf sturgeon within the Santa Rosa Sound confirm its present use by the Choctawhatchee River subpopulations (Fox *et al.*, 2002; and F. Parauka, pers. comm. 2002). The Escambia and Yellow Rivers subpopulations may also use this area due to its close proximity. Gulf sturgeon have been located mid-channel and in shoreline areas in 2 to 5.2 m (6.6 to 17.1 ft) depths and sand substrate. The approximate length of the critical habitat unit is 52.8 km (33 miles). Bridges were chosen as the eastern and western boundaries for ease in identification. Any portion of the sound not included in this unit is captured by the adjacent critical habitat units.

*Unit 11. Florida Nearshore Gulf of Mexico Unit in Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf Counties in Florida*

Unit 11 includes a portion of the Gulf of Mexico as defined by the following boundaries. The western boundary is the line of longitude 87°20.0'W (approximately 1 nm (1.9 km) west of Pensacola Pass) from its intersection with the shore to its intersection with the southern boundary. The northern boundary is the MHW of the mainland

shoreline and the 72 COLREGS lines at passes as defined at 30 CFR 80.810 (a–g). The southern boundary of the unit is 1 nm (1.9 km) offshore of the northern boundary; the eastern boundary is the line of longitude 85°17.0'W from its intersection with the shore (near Money Bayou between Cape San Blas and Indian Peninsula) to its intersection with the southern boundary.

Unit 11 includes winter feeding and migration habitat for Gulf sturgeon from the Yellow River, Choctawhatchee River, and Apalachicola River subpopulations. Telemetry relocation data suggest that these subpopulations feed in nearshore Gulf of Mexico waters between their natal river systems (Fox *et al.*, 2002; and F. Parauka, pers. comm. 2002). Gulf sturgeon from the Choctawhatchee River subpopulation have been documented both east and west of Choctawhatchee Bay (Fox *et al.*, 2002; and F. Parauka, pers. comm. 2002). During the winter of 2001–2002, personnel from both USGS and FWS attached pop-up satellite tags to 20 Gulf sturgeon (12 from the Suwannee River, 4 from the Choctawhatchee River, 2 from the Apalachicola River, and 2 from the Yellow River) to identify winter feeding areas in the Gulf of Mexico. Due to a design flaw, errors in attachment, or sturgeon's ability to successfully shed the tags, the tags failed to report reliable data with only two exceptions. One of the Choctawhatchee River-tagged Gulf sturgeon was located in Hogtown Bayou in Choctawhatchee Bay; however, this provided no new information as we already knew that some adult Gulf sturgeon overwinter in this bayou. The other operating tag had been attached to a Yellow River Gulf sturgeon. Manual tracking in the vicinity of that Yellow River Gulf sturgeon led to the relocation of another tagged Gulf sturgeon. As a result, tagged individuals from three different subpopulations (Choctawhatchee, Yellow, and Apalachicola Rivers) were relocated on multiple occasions in close proximity to one another, suggesting an important feeding area just offshore of Mexico Beach, Crooked Island East, and Crooked Island West over sand substrate. These data suggest that Gulf sturgeon from the Yellow River, Choctawhatchee River, and Apalachicola River remain within 1.6 km (1 mi) of the coastline between these river systems (F. Parauka, pers. comm. 2002). Examination of bathymetry data along the Gulf of Mexico coastline between the Pensacola Bay and Apalachicola Bay reveals that depths of less than 6 m (19.7 ft), where Gulf sturgeon are generally found, are all