

suitable spawning habitat has been identified in this upstream reach (F. Parauka, pers. comm. 2002), and since Gulf sturgeon have rarely been documented upstream of spawning grounds, we have included the 4.8 rkm (3 rmi) of river reach upstream of the confirmed spawning grounds. For ease of identification, we have stopped on the southern-most road crossing of Interstate 59, where it crosses the Bouie River. Confirmed use for spawning and use as a summer holding area support the inclusion of the Bouie River as critical habitat.

Documented sightings of Gulf sturgeon and identified suitable spawning habitat upstream to Mississippi State Highway 588 (Reynolds, 1993; W. Slack, pers. comm. 2002; and F. Parauka, pers. comm. 2002), confirmed use as a migration corridor, and confirmed use by juvenile Gulf sturgeon (W. Slack, pers. comm. 2002) support the inclusion of the Leaf River as critical habitat.

Documented sightings of Gulf sturgeon using the Chickasawhay River (Miranda and Jackson, 1987; Reynolds, 1993; and Ross *et al.*, 2001b) upstream to Quitman (Ross *et al.*, 2001b), and the presence of apparently suitable spawning habitat at Quitman (F. Parauka, pers. comm. 2002), support the inclusion of this river reach as critical habitat for spawning, migration, and juvenile feeding. We have included the suitable spawning habitat located within 0.8 rkm (0.5 rmi) upstream of Mississippi State Road 512 and have extended the designation 9 rkm (5.5 rmi) upstream to the confluence with Oak Creek for ease of identification.

Gulf sturgeon use the West and East distributaries of the Pascagoula River during spring and fall migrations (Ross *et al.*, 2001b). Summer resting areas have been consistently documented on Big Black Creek and on the Pascagoula River (Ross *et al.*, 2001a and b). Confirmed use for migration and/or summer resting areas and probable feeding use by juveniles support our inclusion of these river reaches.

Unit 3. Escambia River System in Santa Rosa and Escambia Counties, Florida and Escambia, Conecuh, and Covington Counties, Alabama

Unit 3 includes the Conecuh River main stem beginning just downstream of the spillway of Point A Dam, Covington County, Alabama, downstream to the Florida State line, where its name changes to the Escambia River, Escambia County, Alabama, and Escambia and Santa Rosa Counties, Florida. It includes the entire main stem of the Escambia River downstream to its

discharge into Escambia Bay and Macky Bay, Escambia and Santa Rosa Counties, Florida. All of the distributaries of the Escambia River including White River, Little White River, Simpson River, and Dead River, Santa Rosa County, Florida are included. The Sepulga River main stem from Alabama County Road 42, Conecuh and Escambia Counties, Alabama, downstream to its confluence with the Conecuh River, Escambia County, Alabama, is also included. The lateral extent of Unit 3 is the ordinary high water line on each bank of the associated lakes, rivers and shorelines.

Sufficient data are not yet available to estimate historic or current subpopulation size of the Escambia River drainage subpopulation. Collection and tagging of Gulf sturgeon, monitoring, and eventual subpopulation estimates are in the initial phases on the Escambia River in Florida and the Conecuh River in Alabama.

Suitable spawning habitat (Parauka and Giorgianni, 2002) and a reported larval sighting (N. Craft, Florida Department of Environmental Protection (FDEP), pers. comm. 2001), just below the Point A Dam (221 rkm (137 rmi)) on the Conecuh River support inclusion of critical habitat upstream to the Point A Dam. The Point A Dam prevents sturgeon movement further upstream at all flow conditions. In addition, spawning has been confirmed between rkm 161 and 170 (rmi 100 and 105.6) (Craft *et al.*, 2001) on the Conecuh River. The use of the river main stem for spawning, adult resting areas, juvenile feeding and resting, and the use for migration to these sites supports our inclusion of the Escambia/Conecuh River main stem as critical habitat for the Escambia River subpopulation of Gulf sturgeon.

Historic sightings reported from the 1910s and 1920s, and as recently as 1991, have been documented in Escambia County, Alabama, on the Sepulga River (Reynolds, 1993). Estes *et al.* (1991) describe the Sepulga as having smooth rock walls, and long pools with stretches of rocky shoals and sandbars. We included the Sepulga River reach upstream to Alabama County Road 42, Escambia County, Alabama, because it has suitable spawning habitat and documented sightings.

We believe it is most likely that Gulf sturgeon use the Escambia River main stem and all the distributaries for exiting and entering the Escambia/Conecuh River. Gulf sturgeon have been documented to use distributaries near the river mouth within other systems (e.g., Suwannee, Pearl, and Pascagoula River systems) for migration into and out of riverine habitat. We, therefore,

have included all distributaries on the Escambia River system (*i.e.*, White River, Little White River, Simpson River, and Dead River) in Unit 3.

Unit 4. Yellow River System in Santa Rosa and Okaloosa Counties, Florida and Covington County, Alabama

Unit 4 includes the Yellow River main stem from Alabama State Highway 55, Covington County, Alabama, downstream to its discharge at Blackwater Bay, Santa Rosa County, Florida. All Yellow River distributaries (including Weaver River and Skim Lake) discharging into Blackwater Bay are included. The Shoal River main stem, a Yellow River tributary, from Florida Highway 85, Okaloosa County, Florida, to its confluence with the Yellow River, is included. The Blackwater River from its confluence with Big Coldwater Creek, Santa Rosa County, Florida, downstream to its discharge into Blackwater Bay is included. Wright Basin and Cooper Basin, Santa Rosa County, on the Blackwater River are included. The lateral extent of Unit 4 is the ordinary high water line on each bank of the associated lakes, rivers and shorelines.

The USGS conducted a subpopulation study in the Yellow River system during the spring (May to July) and fall (October) of 2001. Based on the capture of 98 fish in the spring and the capture/recapture of 94 fish that fall, the USGS estimated the subpopulation to consist of 580 Gulf sturgeon of 1 m (3.3 ft) or greater in size (M. Randall, USGS, pers. comm. 2001). This estimate excludes fish younger than 3 to 4 years of age.

Five distinct limestone outcrops have been documented as possible spawning sites on the Yellow River, between rkm 43 and 134 (rmi 26.7 and 83.3) (Parauka and Giorgianni, 2002). Several sites consist of brittle marl and limestone, and others of porous limestone. The lowest downstream site (rkm 43 (rmi 26.7)) is a primitive rock revetment, a manmade structure with a fair amount of rock substrate (Craft *et al.*, 2001). In recent years, biologists working for the State of Alabama have observed young-of-the-year Gulf sturgeon near limestone outcrops 3.2 km (2 mi) south of Alabama State Highway 55 (136 rkm (84 rmi)) (Craft *et al.*, 2001), which confirms that reproduction is occurring within this subpopulation. The river upstream of Alabama State Highway 55 is shallow, sandy, and creek-like and, therefore, not believed suitable for spawning (M. Randall, pers. comm. 2001; F. Parauka, pers. comm. 2001; and G. Morgan, Conecuh National Forest, pers. comm. 2001). Preliminary surveys located four potential summer resting