

areas on the Yellow River main stem (Craft *et al.*, 2001). Recent fish captures and the confirmation of spawning at the furthest upstream spawning habitat location near Alabama State Highway 55 support our inclusion of the Yellow River main stem to Alabama State Highway 55 (136 rkm (84 rmi)) as critical habitat for the Yellow River subpopulation of Gulf sturgeon.

The inclusion of the Shoal River, from the Yellow River confluence upstream to the Florida Highway 85 bridge (13 rkm (8 rmi)), is supported as critical habitat because it is a confirmed summer resting area (Lorio 2000). The potential for tributaries Weaver River and Skim Lake to be used for migration to and from the Yellow River system (Craft *et al.*, 2001) supports their inclusion as critical habitat. The current and historic use of deep holes by Gulf sturgeon on the Blackwater River main stem and between Wright Basin and Cooper Basin demonstrate the importance of this area for summer resting and staging (Reynolds, 1993; and Craft *et al.*, 2001) and support its inclusion as critical habitat for the Yellow River subpopulation.

*Unit 5. Choctawhatchee River System in Holmes, Washington, and Walton Counties, Florida and Dale, Coffee, Geneva, and Houston Counties, Alabama*

Unit 5 includes the Choctawhatchee River main stem from its confluence with the west and east fork of the Choctawhatchee River, Dale County, Alabama, downstream to its discharge at Choctawhatchee Bay, Walton County, Florida. The tributaries discharging into Choctawhatchee Bay known as Mitchell River, Indian River, Cypress River, and Bells Leg are included. The Boynton Cutoff, Washington County, Florida, which joins the Choctawhatchee River main stem, and Holmes Creek, Washington County, Florida, are included. The section of Holmes Creek from Boynton Cutoff to the mouth of Holmes Creek, Washington County, Florida, is included. The Pea River main stem, a Choctawhatchee River tributary, from the Elba Dam, Coffee County, Alabama, to its confluence with the Choctawhatchee River, Geneva County, Alabama, is included. The lateral extent of Unit 5 is the ordinary high water line on each bank of the associated rivers and shorelines.

Preliminary estimates of the size of the Gulf sturgeon subpopulation in the Choctawhatchee River system are 2,000 to 3,000 fish over 61 cm (24 inches (in)) total length (F. Parauka, pers. comm. 2001).

Biologists have located Gulf sturgeon within 0.8 rkm (0.5 rmi) downstream of the Elba Dam, Coffee County, Alabama, on the Pea River (Lorio, 2000) and have identified suitable spawning habitat from the Elba Dam to the Pea River mouth (Parauka and Giorgianni, 2002; and Hightower *et al.*, in press). The Elba Dam prevents sturgeon movement further upstream at all flow conditions. This river reach has one confirmed spawning site, and Gulf sturgeon often use the lower reach for summer resting (Fox *et al.*, 2000; and Hightower *et al.*, in press). Suitable spawning and resting habitat, confirmed spawning, and young-of-the-year and juvenile feeding (F. Parauka, pers. comm. 2001) support inclusion of the Pea River reach as critical habitat.

Five spawning sites and seven resting areas have been identified on the Choctawhatchee River main stem between the river mouth (0 rkm (0 rmi)) and upstream to 150 rkm (93 rmi) (Hightower *et al.*, in press). Biologists have identified suitable spawning habitat (limestone outcrops) periodically between 135 rkm (84 rmi) to the confluence of the West Fork Choctawhatchee River and East Fork Choctawhatchee River (224 rkm (139 rmi)) (Parauka and Giorgianni, 2000; H. Blalock-Herod, FWS, pers. comm. 2002; and Hightower *et al.*, in press). Fox *et al.* (2000) located a male at 150 rkm (93 rmi) and another male in spawning condition near Newton (214 rkm (133 rmi)) on the Choctawhatchee River, 8 rkm (5 rmi) downstream of the confluence of the West Fork Choctawhatchee River and East Fork Choctawhatchee River. Since Gulf sturgeon rarely occur upstream of spawning grounds, we have included up to the confluence of West Fork Choctawhatchee River and East Fork Choctawhatchee River for ease of identification and with the probability of unconfirmed spawning grounds. Suitable habitat, confirmed spawning, and young-of-the-year and juvenile feeding support the inclusion of the Choctawhatchee River main stem as critical habitat.

No sturgeon have been documented within Holmes Creek, except for the section that connects the Choctawhatchee River and Boynton Cutoff, north and south. We have included this river section of Holmes Creek because it acts as part of the Choctawhatchee River main stem. In 1994, Gulf sturgeon were captured during March and April at the mouths of Indian River, Cypress River, and Bells Leg, indicating that sturgeon probably use these tributaries as migratory corridors to and from the

Choctawhatchee River main stem. All tributaries, including the Indian River, Cypress River, Bells Leg, and Mitchell River, are included as critical habitat.

*Unit 6. Apalachicola River System in Franklin, Gulf, Liberty, Calhoun, Jackson, and Gadsden Counties, Florida*

Unit 6 includes the Apalachicola River mainstem, beginning from the Jim Woodruff Lock and Dam, Gadsden and Jackson Counties, Florida, downstream to its discharge at East Bay or Apalachicola Bay, Franklin County, Florida. All Apalachicola River tributaries, including the East River, Little St. Marks River, St. Marks River, Franklin County, Florida, to their discharge into East Bay and/or Apalachicola Bay are included. The entire main stem of the Brothers River, Franklin and Gulf Counties, Florida, a tributary of the Apalachicola River, is included. The lateral extent of Unit 6 is the ordinary high water line on each bank of the associated rivers and shorelines.

Based on mark/recapture studies conducted in 1998 and 1999 in the Apalachicola River downstream of Jim Woodruff Lock and Dam, the summer subpopulation of subadult and adult Gulf sturgeon was estimated to be between 270 and 321 individuals (FWS, 1998; and FWS, 1999). Seventy-one sturgeon were collected in the upper Brothers River, upstream of the Brickyard Cutoff and downstream of Bearman Creek between June and September 1999 (FWS, 1999; and Lorio, 2000). Gulf sturgeon captured on the Brothers River have not been included in the Apalachicola River subpopulation size estimate although they are believed to be part of the subpopulation.

The Gulf sturgeon became restricted to the portion of the Apalachicola River downstream of the Jim Woodruff Lock and Dam upon the construction of the dam in the 1950s. Wooley *et al.* (1982) documented the capture of two Gulf sturgeon larvae on the Apalachicola River just downstream of the Jim Woodruff Lock and Dam, thereby confirming successful spawning up to the dam. Resting aggregations are often seen at the base of the dam. Seven potential spawning sites have been identified in the upper Apalachicola River between Highway 20 and the Jim Woodruff Lock and Dam (120 to 171 km (76 to 106 rmi)) (Parauka and Giorgianni, 2002). Suitable spawning and resting habitat, confirmed spawning, and young-of-the-year and juvenile feeding support inclusion of the Apalachicola River as critical habitat.