

4 Protection of the Atlantic and Shortnose Sturgeon

Based on discussions with NOAA's National Marine Fisheries Service (NMFS) staff responsible for the protection of the Atlantic and shortnose sturgeon, the area in the St. Johns River between the U.S. Highway 17 Bridge in Palatka north to the Shands Bridge (U.S. Highway 16) bridge near Green Cove Springs (**Figure 2**) is an area where both species could potentially spawn in the future. According to the NMFS, any future spawning of the sturgeon in the St. Johns River would occur during the period from February through March.

To assure no adverse effects on the Atlantic and shortnose sturgeon juveniles, the current 5.0 mg/L DO criterion (i.e., 53% saturation) will be maintained in the St. Johns River between the U.S. Highway 17 Bridge in Palatka north to the Shands Bridge (U.S. Highway 16) bridge near Green Cove Springs during the months of February and March. During the other times of the year when the sturgeon are less sensitive, the generally applicable (i.e., 34% saturation) DO criteria apply.

4.1 *Sturgeon in the St. Marys River*

Historically, Atlantic and shortnose sturgeon have occasionally been found in portions of the St. Marys River. According to NMFS staff, most of the sturgeon captures in the St. Marys have occurred between river km 26 and 44. However, there is no evidence that spawning has occurred in the St. Marys River due to natural conditions not being favorable. Even though the portions of the Marys River where sturgeon have been captured have very limited anthropogenic inputs, the DO levels are naturally low with significant portions of the river commonly exhibiting DO concentrations below 3 mg/L as a result of the natural conditions including wetland inputs, high color, high degree of shading/canopy cover, low flow, etc. Additionally, NMFS staff have indicated that sturgeon have been captured in the St. Marys at DO concentrations as low as 2.7 mg/L.

While the natural DO levels in the St. Marys may not be ideal for the widespread occurrence of the sturgeon, FDEP is prohibited by state statute from implementing regulations that would require natural background conditions to be ameliorated. Since the DO criteria proposed for the Northeast and Big Bend bioregion are protective of the natural DO levels found in the St. Marys River, no additional modification was deemed necessary.