

1.10.3 Big Sandy Creek

Big Sandy Creek begins in central Polk County and flows south/southeasterly 47.9 miles through Polk and Tyler Counties and joins Village Creek in north Hardin County. The creek flows primarily through the Upper Thicket, which is a distinct subregion within the Big Thicket region composed primarily of American beech (*Fagus grandifolia*), southern magnolia (*Magnolia grandiflora*), and loblolly pine (*Pinus taeda*) (McLeod 1967). Soils in the area are characterized by sand with some clay and silt and an abundance of organic matter (Bureau of Economic Geology 1968). The banks of Big Sandy Creek are heavily vegetated with bald cypress (*Taxodium distichum*), sycamore (*Platanus occidentalis*), sweet gum (*Liquidambar styraciflua*), river birch (*Betula nigra*), and water oak (*Quercus nigra*) among others, which greatly reduces light penetration to the creek's channel (Rizzo et al. 2000). Abundant woody debris and logjams that result from the dense vegetation provide instream cover and habitat for aquatic organisms. Evans and Noble (1979) reported collecting 46 species of fish representing 13 families between June 1974 and January 1976, including seven species intolerant of degradation. Subsequent fish collections by Moring (2003) yielded only 25 species of fish, including just five intolerant species, representing 10 families between 1999 and 2001 (Appendix C). Although the Big Sandy Creek Unit of the Big Thicket Preserve was created shortly after the collections were performed by Evans and Noble, the large decrease in number of fish species collected between the late 70's and the late 90's suggests the creek has been impacted to some extent. However, the persistence of five intolerant fish species and the presence of nine species of freshwater mussels (Bordelon and Harrel 2004), one of which is considered of "special concern" by the American Fisheries Society (Williams et al 1993), indicate the creek is still relatively undisturbed. The ecologically significant stream segment is from the confluence with Village Creek in Hardin County upstream to the Polk/Trinity County line.

- **Biological function-** Texas Natural Rivers System nominee for outstandingly remarkable fish and wildlife values (NPS 1995).
- **Riparian conservation area-** fringed by the 14,346-acre Big Sandy Creek Unit of the Big Thicket National Preserve.
- **High water quality/exceptional aquatic life/high aesthetic value-** exceptional aesthetic value (NPS 1995).
- **Threatened or endangered species/unique communities-** significant due to the presence of the creek chubsucker (*Erimyzon oblongus*) (SOC/St. T) (Evans and Noble 1979). The state threatened paddlefish (*Polyodon spathula*) historically occurred (pre-1977) in Big Sandy Creek, but has not been collected in almost 30 years (Pitman 1991).



Figure 21. Big Sandy Creek east of FM 1276 in Polk County (8/15/01).



Figure 22. Big Sandy Creek west of FM 1276 in Polk County (8/15/01).