# White Catfish

Ameiurus catus

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#### DESCRIPTION

# **Taxonomy and Basic Description**

The White Catfish is a member of the family Ictaluridae and the genus *Ameiurus*, which contains medium-sized catfish. Of the 7 species of *Ameiurus*, 5 occur in South Carolina. This genus is characterized by a lack of scales, 8 barbels, one stout spine supporting dorsal and pectoral fins, an upper jaw protruding over the lower, cardiform teeth on jaws, and an adipose fin (Jenkins and Burkhead 1994). The White Catfish is bluish-gray to olive above and white on the belly with unmarked sides. The tail is slightly forked with rounded tips. Maximum length is 590 mm (23 in.), but White Catfish are typically less than 500 mm (20 in.) long. The anal fin is convex with a ray count ranging between 19 and 23. White Catfish feed on plants, insects, and other fish. Spawning occurs in late spring and early summer. These catfish are relatively long-lived, reaching a maximum of 14 years (Rohde et al. 1994; Jenkins and Burkhead 1993).

#### **Status**

Overall, the White Catfish is currently considered to be stable (Warren et al. 2000) and common as well as widespread and secure (G5) (NatureServe 2013). It is considered vulnerable (S3) in Alabama, but is not ranked (SNR) in South Carolina (NatureServe 2013). Additionally, populations have greatly declined in the Neuse River, Cape Fear River, Pee Dee River (W. Starnes, pers. comm.), and Edisto River (W. McCord, pers. comm.) since the introductions of Flathead Catfish and Blue Catfish.

### POPULATION SIZE AND DISTRIBUTION

The White Catfish is native to the major Atlantic Slope drainages from Delaware to Florida. It is also found on the Eastern Gulf Slope in Alabama, Florida and Georgia. The White Catfish has been widely introduced outside its native range. This species has been reported across the entire State of South Carolina (Nature Serve 2004), with few exceptions. White Catfish are unlikely inhabitants of cold-water habitats of the northwestern portion of the State and are likely inhabitants of undocumented portions of the Coastal Plain and Midlands of South Carolina.

White Catfish populations in North Carolina and South Carolina coastal rivers have declined since the introduction of nonnative Blue Catfish and Flathead Catfish, (*Ictalurus furcatus* and *Pylodictis olivaris*, respectively) (W. Starnes, pers. comm.; SCDNR unpublished data). The White Catfish was not collected at any randomly selected wadeable stream sites in the South Carolina Stream Assessment (2006-2011).

## HABITAT OR NATURAL COMMUNITY REQUIREMENTS

White Catfish inhabit warm ponds, reservoirs, and medium to large rivers in freshwater and brackish water habitats (Jenkins and Burkhead 1994).

### **CHALLENGES**

Predation by and competition with introduced Flathead Catfish and Blue Catfish may negatively affect abundance of the White Catfish and limit its distributions in portions of its range.

#### CONSERVATION ACCOMPLISHMENTS

Educational materials have been developed in order to raise public awareness of nongame species and their ecological importance to the natural history of South Carolina's aquatic habitats, including:

- The Reel Art program creates a topic for secondary school students and judges the artists' submissions (e.g. a list of the Piedmont Fishes of SC to select from as subjects for drawing or painting).
- We compiled information and photographs for the development of nongame fish description web pages which are currently in development.
- We developed the Blackwater River Guide and interactive Powerpoint.
  - o http://www.dnr.sc.gov/education/pdf/BlackwaterInteractivePoster.pdf
  - o <a href="http://www.dnr.sc.gov/education/pdf/BlackwaterRivEdGuide.pdf">http://www.dnr.sc.gov/education/pdf/BlackwaterRivEdGuide.pdf</a>
- We developed and printed the Fish Species of Concern Coloring Book (2009).
  - o http://www.dnr.sc.gov/aquaticed/pdf/SCFishesofConcernColoringBook.pdf

### CONSERVATION RECOMMENDATIONS

- Control exotic catfish species, like Blue and Flathead Catfish, through eradication efforts and by educating landowners, fishermen, and the general public to the discontents of stocking non-native species.
- Describe life history and habitat requirements of the White Catfish.
- Identify critical habitats and areas with healthy populations of the White Catfish; protect these areas, once identified.
- Protect critical habitats from future development and further habitat degradation by following Best Management Practices and protecting and purchasing riparian areas.
- Promote land stewardship practices through educational programs both within critical habitats with healthy populations and other areas that contain available habitat.
- Encourage responsible land use planning.
- Consider this pecies' needs when participating in the environmental permit review process.
- Continue to develop educational materials in order to raise public awareness of nongame species and their ecological importance to the natural history of South Carolina's aquatic habitats.
- Educate motor vehicle operators of the negative effects of crossing streams at multiple locations and using stream bottoms as trails.

### **MEASURES OF SUCCESS**

Determining the life history, habitat needs, and Southeastern population structure and trends would represent a measure of success for this species. Methods that protect water quality are also likely to protect this species. In the event that more protective BMPs are implemented, population studies of this fish could assist in determining the effectiveness of those measures.

### LITERATURE CITED

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