Florida Gar

Lepisosteus platyrhinchus

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DESCRIPTION

Taxonomy and Basic Description

The Florida Gar is a member of the ancient family *Lepisosteidae*, a lineage of fishes that arose some 200 million years ago (Wiley 1976). *Lepisosteidae* is a small family with only 7 members, all of which are New World species (Rohde et al. 1994). Five of those species occur in North America. The gars are truly unmistakable with a heavy armor of diamond-shaped scales and a long, beak-like mouth equipped with needle-sharp conical teeth. The Florida Gar can be distinguished from the longnose gar (*Lepisosteus osseus*)—the only other gar occurring in South Carolina—by its broader and shorter snout. The Florida Gar can attain lengths of 132 cm (52 in.) (Page and Burr 1991).

Status

The Florida Gar is considered globally secure and stable (G5) (Warren et al. 2000) but is listed as critically imperiled (S1) in South Carolina (NatureServe 2013).

POPULATION SIZE AND DISTRIBUTION

The Florida Gar occurs from portions of the Savannah River Basin in South Carolina and Georgia into peninsular Florida and west to the Ochlockonee River drainage of Florida and Georgia (Rohde et al. 2009). In South Carolina, it is known only from the lower Savannah River near the mouth of Steel Creek and a handful of tributaries in Barnwell County near the Savannah River Site. The Florida Gar was not collected at any randomly selected wadeable stream sites in the South Carolina Stream Assessment (2006-2011).

HABITAT OR NATURAL COMMUNITY REQUIREMENTS

The Florida Gar inhabits sluggish pools of quiet streams and lakes, usually near vegetation (Rohde et al. 2009).

CHALLENGES

Primary threats to the Florida Gar include activities associated with development near its habitat within its limited distribution in the lower Savannah River Basin. Although certain tributaries within its range in South Carolina are protected under management of the Savannah River Site

(US Department of Energy), impacts to the Savannah River and its tributaries may affect habitat for the Florida Gar, including flow alterations and channelization of swamps and sluggish streams.

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.
    - http://www.dnr.sc.gov/education/pdf/BlackwaterInteractivePoster.pdf
    - http://www.dnr.sc.gov/education/pdf/BlackwaterRivEdGuide.pdf
- We developed and printed the Fish Species of Concern Coloring Book (2009).
    - http://www.dnr.sc.gov/aquaticed/pdf/SCFishesofConcernColoringBook.pdf

CONSERVATION RECOMMENDATIONS

- Use South Carolina Stream Assessment decision-support GIS modeling tools to identify levels and spatial distributions of critical habitat factors to sustain the species in geographic areas of interest.
- Use South Carolina Stream Assessment decision-support GIS modeling tools to identify priority regions and watersheds at greatest risk of decline in stream integrity.
- 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 species' 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

A success criterion would be the cooperation of SC landowners in achieving the foremost goal of the Southeastern Aquatic Resource Partnership's 2008 Southeast Aquatic Habitat Plan which states that 85% of lands within 30 m (100 ft.) of streams or rivers be maintained in natural

vegetation. Maintenance of large tracts of forest across Coastal Plain landscapes would represent a major accomplishment in providing suitable habitat.

LITERATURE CITED

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