



## Sarotherodon melanotheron

### Black Chin Tilapia

#### Threat scores

1. Ecological impact
  - “Depletion of aquatic vegetation in areas where blackchin tilapia were commonly caused by overgrazing. These authors also noted that in Lithia Springs, Florida, where blackchin tilapia constituted 90% of the total fish biomass, co-occurring largemouth bass and bluegill appeared diseased and malnourished. given their adaptability to broad salinity ranges and their trophic plasticity, they can become locally dominant and contribute to lowering biodiversity. As is the case with other cichlids, blackchin tilapia also compete with native fishes for breeding grounds” (Molnar 2008).
2. Invasive potential
  - North temperature appears to be a limiting factor, there are few if any factors limiting their spread throughout most of south-central Florida.
  - Introductions mostly human assisted: aquarium releases, aquaculture escapes, sport introductions.
  - Reported to be spreading rapidly around Oahu, Hawaii
3. Geographic extent
  - Records of invasion in Florida. Introduced to Oahu, Hawaii.
  - Regionally pervasive
4. Management difficulty
  - No information on attempts to manage established populations.



#### Geography and Habitat

1. Origin: native to Africa, from Senegal to Zaire.
  2. First introduction 1959
  3. The first specimen recorded for Florida was collected late in the summer of 1959. Introduced through aquarium releases. Blackchin tilapia may be rapidly invading fresh waters around the Indian River Lagoon system in Florida (Molnar 2008).
1. Estuaries/bays, mangroves, disturbed areas, shallow lagoons, water courses
  2. Primarily estuarian, abundant in mangroves, commonly occurring in ditches and canals. Tolerate wide salinity range. Molnar et al. documented successful breeding in freshwater aquaria.

#### Invasion Pathways

1. Pet, Aquarium, and Water Garden Trade - including organisms & facilities
  - Intentional probable
  - Cause- aquarium releases
  - The first specimen recorded for Florida was collected late in the summer of 1959. Introduced through aquarium releases.
2. Stocking in Open Water
  - Intentional probable
  - Fishery enhancement
  - Dial and Wainright (1983) believed this population to have been intentionally introduced by fishermen (Molnar 2008).

3. Enclosed facilities
  - Accidental probable
  - Fish farm escape
  - Blackchin tilapia are exploited commercially as food fish both over their native and non-native range.

#### Non native locations

1. 70- Floridian

#### Sources

1. Molnar, Jennifer, et al. 2008. "Assessing the global threat of invasive species to marine biodiversity." *Frontiers in Ecology and the Environment*. 6 (9), pp. 485-492.
2. <http://conserveonline.org/workspaces/global.invasive.assessment>
3. <http://www2.bishopmuseum.org/dargis/esri/images/Sarotherodon%20melanotheron.jpg>