



## Oreochromis mossambicus

### Mozambique tilapia

#### Threat scores

1. Ecological impact
  - “Impacts native species through direct predation & transmission of diseases. Suspected threat in Hawaii to native species such as striped mullet *Mugil cephalus*. Considered major factor in decline of desert pupfish *Cyprinodon macularius* in Salton Sea area” (Molnar 2008).
2. Invasive potential
  - “Established populations of this species in the wild are a result of intentional releases (aquatic plant control) or escapes from fish farms. The mouthbrooding habit of this species allows it to nurture and carry its young long distances to invade habitat far from the original site of introduction” (Molnar 2008).
  - “Burrows in the mud in drought or cold & remains for extended periods, until environmental conditions improve. Broad tolerance for physiological parameters, low vulnerability to predation, a flexible diet, & high reproductive potential” (Molnar 2008).
3. Geographic extent
  - Regionally pervasive
4. Management difficulty
  - “Eradication has been suggested on Tarawa and Nauru. No known safe and effective eradication techniques developed” (Molnar 2008).



#### Geography and Habitat

1. Origin: northeastern Asia southward to central China. USGS: Tropical and subtropical Africa. Southern Africa from lower Zambezi to Brak River, and Limpopo system (Molnar 2008).
1. First introduction: 1969
2. “Popular as a baitfish, and may have been introduced into certain areas of the United States as such” (Molnar 2008).
1. Lakes, ponds, water courses, brackish water, marine
  - “Found in still or slow moving, shallow waters with mud-bottoms & can inhabit ponds & lakes poor in oxygen due to intestinal accessory organ allowing them to absorb atmospheric oxygen” (Molnar 2008).

#### Invasion Pathways

1. Bait Industry
  - Intentional known
  - Cause- sport/angling
  - Popular as a baitfish, and may have been introduced into certain areas of the United States as such (Molnar 2008).
2. Biocontrol
  - Intentional known
  - Cause- aquatic plant control
  - “This species was stocked in Alabama by the Alabama Department of Conservation for aquatic plant control and potential use in aquaculture” (Molnar 2008).

3. Pet, Aquarium, and Water Garden Trade - including organisms & facilities
  - Accidental known
  - Cause- aquarium release
  - A popular aquarium fish. Grows large and is often released into the wild.
4. Enclosed Facilities
  - Accidental probable
  - Cause- accidental fish farm release
  - A farmed food fish. Meat sold in restaurants as Tilapia.

#### Non native locations

1. 43- Northern Gulf of Mexico
2. 57- OR, WA, Vancouver Coast and Shelf
3. 58- Northern California
4. 59- Southern California Bight
5. 65- Greater Antilles
6. 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://nas.er.usgs.gov/XIMAGESERVERX/2005/20051102124458.jpg>