Inland Silverside

Scientific Name  
*Menidia beryllina*  
(Cope, 1867)

Family Name  
Atherinopsidae

New World Silversides

Did you know?  
Inland silversides are commonly used in toxicological studies that assess the sensitivity of these fish to various water pollutants such as chlorine and water-soluble extracts of crude oil (Weinstein 1986).

Summary

Protection  
Not listed in New York State, not listed federally.

This level of state protection means: The species is not listed or protected by New York State.

Rarity  
G5, S2S3

A global rarity rank of G5 means: Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

A state rarity rank of S2S3 means: Imperiled or Vulnerable in New York - Very vulnerable to disappearing from New York, or vulnerable to becoming imperiled in New York, due to rarity or other factors; typically 6 to 80 populations or locations in New York, few individuals, restricted range, few remaining acres (or miles of stream), and/or recent and widespread declines. More information is needed to assign a single conservation status.

Conservation Status in New York

The rank is based on a limited distribution in the state. Additional information on the population and threats is needed to better inform the state rank.

Short-term Trends

The short-term trends are unknown (New York State Department of Environmental Conservation 2006).
Long-term Trends

The long-term trends are unknown (New York State Department of Environmental Conservation 2006).

Conservation and Management

Threats

The impacts of potential threats are not known (New York State Department of Environmental Conservation 2006).

Conservation Strategies and Management Practices

A management plan that addresses the needs for mitigating impacts to estuarine forage fish should be developed (New York State Department of Environmental Conservation 2006).

Research Needs

Field studies to determine the habitat requirements of all life stages should be initiated. Field and laboratory studies should also examine the effects of mosquito control and predation on all life stages (New York State Department of Environmental Conservation 2006).

Habitat

Inland silversides can be found in the shallows of tidal salt marshes and estuaries, showing a stronger preference for low salinity waters. They can also be found in freshwater ponds, lakes, and reservoirs and have been introduced into some locations (Smith 1985, Weinstein 1986). Spawning habitat includes shallow fresh or brackish waters with an ample amount of dead leaves, tree roots, algal mats, or aquatic plants for the eggs to adhere to (Weinstein 1986).

Associated Ecological Communities

Tidal River
The aquatic community of a river under the influence of daily lunar tides. We restrict this community to the continuously flooded portions of the river where plants do not grow out of the water. A deepwater zone has depths averaging more than 2 m (6 ft) at low tide. Salinities at any one place in the river may fluctuate as the tides flow in and out.

Associated Species

Atlantic Silverside (*Menidia menidia*)

Identification Comments
Identifying Characteristics

The inland silverside is a small fish, approximately 2 to 4 inches (5 to 10 cm) in length (Carpenter 2002). The upper sides are yellow to olive in color and the underside is pale to translucent yellow. A thin metallic-silver stripe runs along the length of the body. The dark lateral line is composed of a series of pits in the lateral scales. The posterior end of the dorsal fin is directly above the posterior end of the anal fin. The tail is slightly forked. The eggs are generally smaller than 0.04 inches (1 mm) and have filaments that help them to adhere to aquatic vegetation and to each other (Smith 1985, Weinstein 1986).

Characteristics Most Useful for Identification

The pit-like lateral line composition and the posterior margin of the dorsal fin being directly above the posterior margin of the anal fin are the most useful characteristics in distinguishing the inland silverside from the Atlantic silverside (Smith 1985).

Behavior

The inland silverside is a short-lived schooling fish, rarely living past its first breeding season. In the northern range, inland silversides generally have one spawning season per year, but in the southern range, they can have two spawning seasons per year (Middaugh and Hemmer 1992). Females produce eggs (200-1000 depending on size) and spawn daily throughout the spawning season (Hubbs 1982). The majority spawn and die their second summer of life and few survive to their second winter. After the eggs are laid, they hatch in 4-30 days, depending on water temperature (13-34 degrees Celsius) (Middaugh and Hemmer 1992).

Diet

Inland silversides feed during the day on various copepods, mysids, amphipods, isopods, and insects. They generally take their prey in the water column, but the presence of sand in the stomachs of some specimens indicates that bottom feeding does occur (Weinstein 1986).

The Best Time to See

In New York, inland silversides can be found in tidal salt marshes along Long Island Sound and in the lower Hudson River throughout the year. The reproductive season starts in April and continues through July (Middaugh and Hemmer 1992).
The time of year you would expect to find Inland Silverside in New York.

Similar Species

**Atlantic Silverside** (*Menidia menidia*): In the Atlantic silverside, the posterior margin of the dorsal fin is in front of the posterior margin of the anal fin, the lateral line is composed of tubes passing through the lateral scales, and the lateral scale count is higher than in the inland silverside (Smith 1985).

**Taxonomy**

Kingdom  
Animalia
  Phylum  
Craniata
    Class  
Ray-finned Fishes (Actinopterygii)
      Order  
Silversides (Atheriniformes)
        Family  
Atherinopsidae (New World Silversides)

**Additional Resources**

**Links**

- A Global Information System on Fishes  
  [http://fishbase.org](http://fishbase.org)
- NatureServe Explorer  
- Google Images  

**References**


