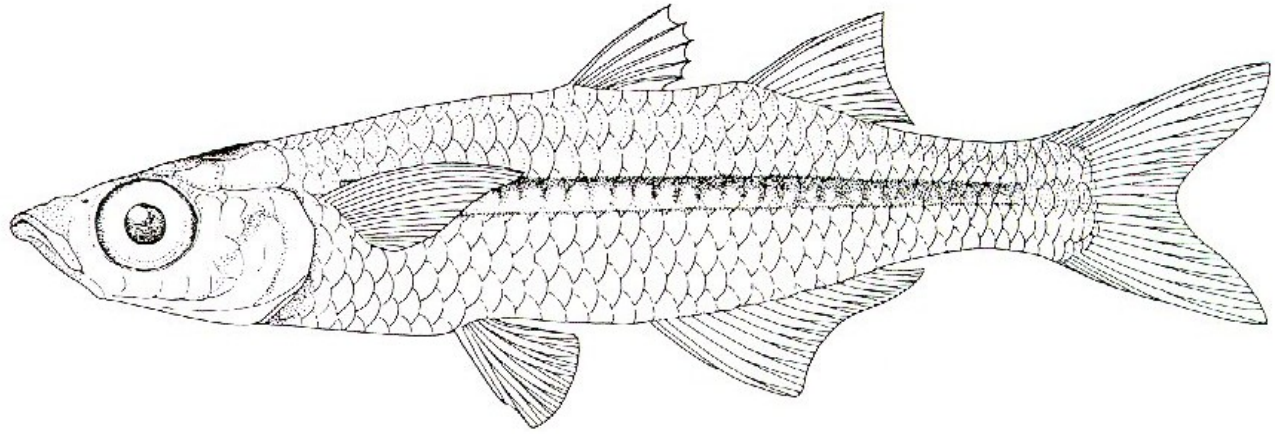
Species of Concern
NOAA National Marine Fisheries Service

Key silverside
Menidia conchorum



KEY INFORMATION

Areas of Concern
Western Atlantic: Florida Keys.

Year Identified as "Species of Concern"
1991

Factors for Decline
- Habitat destruction for development
- Introduced predators

Conservation Designations
IUCN: Near Threatened
American Fisheries Society: Threatened
Species of Greatest Conservation Need: FL

Current Status:

Demographic and Genetic Diversity Concerns:
Loftus et al. (2002) found the species is still common in pools in which it had been collected over 20 years ago. However, some pools have been lost to development and habitat alteration, leading to overall population declines (Florida Fish and Wildlife Conservation Commission 2005). Seasonal fluctuation in population size is common (Getter 1981). The apparent rarity of this species may be due in part to inaccessibility of the habitat to routine collecting.

Existing Protections and Conservation Actions:
Listings by the IUCN, American Fisheries Society, and state of Florida, as well as by the NMFS Species of Concern program, identifying the species as in need of protection, have led to further conservation and research projects outside of regulatory restrictions.

Factors for Decline:
Habitat destruction for development has reduced available habitats through loss of a number of ponds and formerly occupied sites (Loftus et al. 2002) and black mangrove habitats. Introduced bluegill apparently wiped out at least one population (Getter 1981).

Status Reviews/Research Underway:
Some recent work on the species has been undertaken by Dr. David Conover (SUNY Stony Brook) and associates.

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Data Deficiencies:

Evaluation of population sizes throughout their range is essential to prioritizing conservation actions and will assist in identifying habitat characteristics associated with persistent populations. A long-term monitoring program should be established. Better knowledge of specific salt marsh microhabitat types is fundamental to the species conservation.

Brief Species Description:

The key silverside is a small diurnal species occurring in swift moving schools. It has a restricted distribution and is only found in the Florida Keys, from Key West north to Long Key. The key silverside is the smallest known species of *Menidia*; its maximum size is about 2 inches (53 mm). It has fewer anal rays, branchial later-line scales (33-35), predorsal scales (12-14), and vertebrae (35-38) than other *Menidia* species. Males have slightly longer snouts and paired fins, and the dorsal and anal fin have a more anterior origin (Robbins 1969).

Florida considers key silversides members of the mangrove, **pelagic**, and subtidal unconsolidated marine/estuary sediment habitats (Florida Fish and Wildlife Conservation Commission 2005). Their main habitat is tidal creek, lagoon, and pond waters of varying salinity (NatureServe 2006). Key silversides are commonly found in the rhizomes of black mangrove trees or in areas of turtlegrass and other macroalgae, where it is presumably less vulnerable to predation (Duggins et al. 1986). They move into shallower (< 10 cm), protected waters at night. Key silversides are tolerant to a wide range of salinities. They feed on copepods, cladocerans, mysids, isopods, amphipods, and insects (Getter 1981). Spawning is thought to occur in mid to late winter. They spawn by scattering eggs on the substratum. The eggs are attached with a single stalk connected to long filaments that extend from the bulk of each egg. Eggs are not guarded and average fecundity is 42 eggs (Getter 1981). Lifespan is thought to be less than 2 years. Based on electrophoretic data (Duggins et al. 1986), key silversides may be a subspecies of the tidewater silverside (*M. peninsulae*), though *M. conchorum* differs from *M. peninsulae* in some anatomical ways.

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References:

Duggins, C. Jr, et al. 1986. Tulane Stud in Zool Bot 25:133.

Florida Fish and Wildlife Conservation Commission. 2005. Florida's Comprehensive Wildlife Conservation Strategy. Tallahassee.

Getter, C. 1981. Ecology and survival of the key silverside. Ph.D. Diss, Univ. Miami.

Loftus, W., et al. 2002. USGS Project report at: http://fl.water.usgs.gov/cesi/lwf_currentstatus_proj.htm (8 Dec 2006).

NatureServe. 2006. http://www.natureserve.org/explorer/.

Robbins, T. 1969. A systematic study of the silversides Membras and Menidia. Ph.D. Diss, Cornell Univ.