

# Maryland darter

## *Etheostoma Sellare*

### Introduction

The Maryland darter is a small freshwater fish only known from a limited area in Harford County, Maryland.

These areas, Swan Creek, Gashey's Run (a tributary of Swan Creek) and Deer Creek, are part of the larger Susquehanna River drainage basin. Originally discovered in Swan Creek in 1912, the Maryland darter has not been seen here since and only small numbers of individuals have been found in Gashey's Run and Deer Creek.

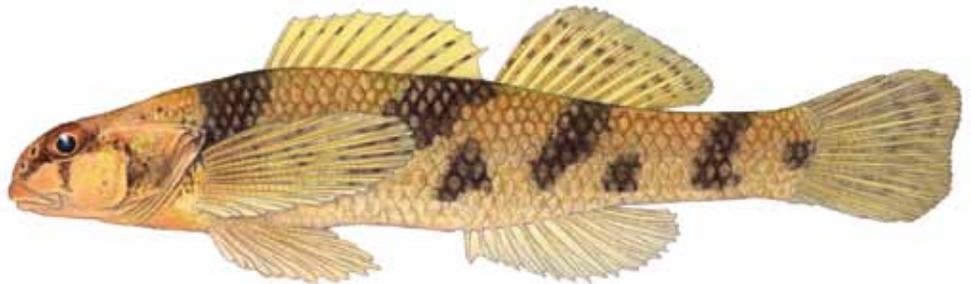
Due to its scarcity, the Maryland darter was federally listed as endangered in 1967, and critical habitat was designated in 1984. The darter is also state listed. The last known sighting of the darter was in 1988.

### Characteristics

The Maryland darter is related to the yellow perch and walleye. It grows to just under three inches and has a relatively short life span averaging around three years. The rarity of this species has made it difficult to study, so little is known of the specifics of its life history and habitat requirements.

Like other darters, this species prefers rock crevices and similar shelters in clean, well-oxygenated, swiftly flowing parts of streams. The Deer Creek location, historically known for the highest population numbers of darters, is characterized by a steeply sloped riffle of rock, including rubble and gravel, and swiftly flowing water with moderate vegetation.

This bottom-dwelling fish eats small insects including small snails, caddis fly larvae, mayfly larvae and stonefly



nymphs. Spawning is assumed to occur during late April, based on other species, but no Maryland darters have been observed during reproduction.

### A Rare Species

Some biologists suspect that the Maryland darter could be hiding in the deep, murky waters of the Susquehanna River. Others worry that the decreased darter population is evidence that the desirable habitat for these fish has diminished, possibly due to water quality degradation and effects of residential development in the watershed. The decreased population is also a possible indication of the species' vulnerability to small population effects such as inbreeding depression.

### Latest Recovery Efforts

After the completion of a five-year review of the Maryland darter in 2007, biologists concluded that a great amount of uncertainty still exists about the darter's status and that another two years of intensive surveying was necessary.

Since then, researchers have continued studies on the darter in the Susquehanna tributaries and in the Susquehanna River main stem below the Conowingo Dam. New techniques for electrotrawling across the bottom of large rivers were tried on a small scale in the Susquehanna in August 2008 and shown to be useful in locating other

species of darters. Electrotrawling is the method of towing a net from a boat with electrodes attached to the net that send small, harmless pulses through the water to stir up fish. Electrofishing efforts in the Susquehanna are continuing.

A lack of adequate surveying of large rivers in the past due to limited technology leaves hope for finding Maryland darters in this area. The new studies would likely provide definitive information on the population status of the Maryland darter and a basis for updating the federal listing status or future research needs.

**U.S. Fish and Wildlife Service**  
300 Westgate Center Drive  
Hadley, MA 01035  
413/253 8630

**Chesapeake Bay Field Office**  
177 Admiral Cochrane Drive  
Annapolis, MD 21401  
410/573 4599

**U.S. Fish & Wildlife Service**  
1 800/344 WILD  
<http://www.fws.gov>

April 2011

