



## Candy Darter (*Etheostoma osburni*)

**Common Name**  
Candy Darter

**Scientific Name**  
*Etheostoma osburni*

**Status**  
The candy darter is designated as a **Species of Concern** by the U.S. Fish and Wildlife Service.

**West Virginia Status**  
The candy darter was first collected by native son John Addair of Welch while conducting a fishery survey of the Kanawha Valley of West Virginia. He captured it from Stoney Creek in Pocahontas County on June 17, 1931 and allowed Carl Hubbs of Michigan State University and Milton B. Trautman of Ohio State University to prepare its scientific description. Addair eventually collected this fish from eight additional sites in the upper Kanawha River drainage (i.e., above Kanawha Falls which is at Glen Ferris, WV) and these data were virtually all that was known about this species' distribution and abundance until recently.

Surveys conducted by regional educational institutions and the Division of Natural Resources during the 1970's greatly expanded the database for the candy darter. Their data revealed that this fish was fairly widespread and common within its range, and was definitely restricted to the Gauley and New river drainages. However, the current status of candy darter is uncertain, as surveys conducted during 1990 by WV University personnel suggest that it may be declining.

**Description**  
The image of a darter is not familiar to most Americans. Due to its small size (the majority never reach four inches) most people would probably categorize this fish as a "minnow". A member of the perch family and closely related to the walleye, sauger and yellow perch, darters are restricted to North America east of the Rocky Mountains and number about 150 in all. These fishes have two

dorsal or top fins (the front one is spiny and back is soft rayed) and very large pectoral fins.

The candy darter is fairly easily to identify from other darters when observed from above because of five distinctive black saddles across its back; the first and largest starts immediately in front of the spinous dorsal fin, the second is centered between the two top fins, and the last three are evenly spaced from the middle of the second dorsal to the base of the caudal or tail fin. Additional characters used to separate it from other darters are the presence of 9-11 vertical bars on its sides and the number of lateral line scales, which number 58-70 (as counted from the edge of the gill cover to the base of the caudal fin). Male candy darters are considered by some to be the most colorful animals in the world.

The males, especially in the spring spawning season, are very ornate. The 9-10 vertical bars are blue-green and are bordered by narrow, brilliant red bars (haloed in white). A dark vertical bar below the eye is followed by a rather large red (or white when not in spawning season) patch on the cheek. The first dorsal fin has a distinct red margin with a blue-green band below; the pectoral, anal, caudal and soft dorsal fins have red spots and varying degrees of blue-green interspersed; the pelvic fins are usually just dark blue-green with a light edge. Females are much more subdued showing the distinct black dorsal saddles and an overall olive hue; the lateral vertical bars are present but are usually only visible toward the tail-end of the fish.



**Habitat**  
The candy darter inhabits riffles and runs of small cool and warm streams and rivers. Adults are usually



found in large rubble to boulder substrates in the swiftest portions of their fast flowing habitat.

### Threats and Prospects

Although the water quality of our nation's waterways has improved immensely in the past 20 years, many native fish populations are apparently still disappearing. Virginia populations of the candy darter are consistent with this imperiled trend, as records show it has become more rare in recent years. In West Virginia the status of this species is presently under evaluation by the WV Division of Natural Resources. Preliminary data are encouraging because candy darters are still fairly common at many historic locations.

### Range

The candy darter is found only in the upper Kanawha River System of West Virginia and Virginia. The majority of its range (at least 80%) is found in West Virginia's Gauley, Greenbrier and Bluestone river drainages; in Virginia, it is apparently restricted to eight streams and the main channel New River, all immediately above our state line.

### Life History

From 1932 when it was described, until 1990, this darter's common name was known as the finescale saddled darter. In 1991 the name was changed to the candy darter. Very little is known about the life history of the candy darters. Apparently, this species does not live long, as they sexually mature within two years and die in their third year. Males typically grow larger than females, but neither sex reaches over four inches in total length. Spawning usually

occurs in April and May, possibly when water temperatures range from 59 - 65 degrees F (15 - 18 degrees C).

### Diet

As do most darters, this species preys primarily on aquatic insects. A typical meal includes mayflies, caddisflies, and true flies (mainly midge larvae).



### Help

You can help this and other nongame species by reporting stream disturbance violations. Many mountain species like the candy darter have narrow tolerances to siltation sedimentation and water temperature changes. Stream alterations such as bulldozing large rubble and boulders onto the banks, altering the channel course, and eliminating trees (which stabilize banks and provide shade) can have severe negative effects on many small stream species. You may report potential illegal stream activities to the Division of Natural Resources at the Elkins (304-637-0245) or Charleston offices (304-558-2771) or the Division of Environmental Protection (1-800-472-8286).