

by Kelly Ann Bibb

Conservation and Recovery of Southeastern Imperiled Fishes



Pygmy madtom

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Prompted by concern over the plight of southeastern fishes and a desire to address their conservation, the Fish and Wildlife Service organized a meeting of more than 60 aquatic natural resources experts in October 1999. Professionals representing state and federal natural resource management agencies, academic institutions, conservation organizations, and industries agreed to create a consensus-based action plan: the “Strategy for the Conservation and Recovery of Southeastern Imperiled Fishes.”¹ The purpose of the strategy is to provide direction and guidance for the conservation and recovery of these fishes and it’s the first of its kind nationwide. It is a collective road map built by a group of partners united around a common cause: the desire to shepherd into the next century a healthy and productive network of southeastern rivers and streams supporting a full diversity of aquatic life while providing resources to people.

This unique strategy assisted in starting a watershed community-level conservation effort, the Upper Coosa River Summit. The approach helped partners outline and prioritize conservation actions desperately needed in the Upper Coosa River, located in north Georgia at the top of the Mobile River

Basin. This river is a hotspot for imperiled species, but there is a high potential for improvement to the watershed, especially with help from partners like those in attendance at the summit (such as Georgia Department of Natural Resources, The Nature Conservancy, the local river alliances, and Conservation Fisheries, Inc.).

The group that developed the strategy (The Southeastern Imperiled Fishes Team or SIFT) reconvened in January 2001 with several new partners to reaffirm the goals, get commitments from new members, and form the body that will advance the strategy. The World Wildlife Fund, Tennessee Aquarium, the Service, other federal and state agencies, conservation organizations, industry, and academic institutions were elected or volunteered as lead chairs or part of the SIFT steering committee. SIFT completed the meeting by initiating a framework of how goals will be achieved within the next year. A mission statement from SIFT highlights its approach:

“... advance conservation and recovery of southeastern imperiled fishes and their aquatic ecosystems for the benefit of current and future generations through scientific based research, management, communication, education and cooperation.”

An example of how SIFT participants are working together under the strategy involved the pygmy madtom (*Noturus stanauli*) release in May 2001. The pygmy madtom is one of the rarest fishes in North America; only about 50 specimens have ever been collected.

¹Biggins, R.G., N.M. Burkhead, S.J. Walsh, V.A. Mudrak, and K.A. Bibb. 2000. Strategy for the Conservation and Recovery of Southeastern Imperiled Fishes. 35 pp.

Professor Rick Mayden and his students from the University of Alabama initially found two pygmy madtoms during sampling for other fish (luckily, one male and one female). J.R. Shute and Pat Rakes at Conservation Fisheries, Inc., took these fish into captivity and were able to propagate and raise 13 new pygmy madtoms—a first and a truly extraordinary achievement. With the support of Richard Kirk and the Tennessee Wildlife Resources Agency, the World Wildlife Fund, and The Nature Conservancy, a reintroduction of these madtoms was planned into the Clinch River in Tennessee. With the generosity of two local landowners who support aquatic conservation, access was allowed to a site on the Clinch River, and 6 of the 13 pygmy madtoms were released back into their natural habitat.

In June 2001, the Service entered into and provided funding for a cooperative agreement with the National Fish and Wildlife Foundation. This agreement allows federal funds to be leveraged with funds from other sources to support on-the-ground projects that benefit our imperiled aquatic resources. Projects supported by the Foundation under this agreement will focus on enhancing and protecting freshwater and estuarine fish resources, and could include conservation education, habitat protection and restoration, and other resource management projects that support the goals and objectives outlined in the strategy.

A request for proposals related to this cooperative agreement was broadcast in October 2001. The first four projects to be funded under this agreement and the first of many to support the Strategy include working to:

(1) incorporate southeastern imperiled fish photos into NatureServe (a former branch of The Nature Conservancy), one of the leading biological information databases on the web and a major educational tool that has a global reach;

(2) develop propagation techniques for the vermilion darter (*Etheostoma chermocki*), ultimately leading to captive propagation of this fish, which occurs

At right, top to bottom: A crowd gathers to watch the release of pygmy madtoms into the Clinch River; Pat Rakes of Conservation Fisheries, Inc., releases the captive-bred fish, as David Sims of the Tennessee Wildlife Resources Agency films the event; the Clinch River is a medium-sized river of eastern Tennessee.

Photos by Kelly Ann Bibb/USFWS

only in a small reach of one tributary in the Black Warrior River drainage in Alabama (protecting this fish through captive propagation and simultaneously working to restore its habitat will facilitate its survival);

(3) begin a video library of native fish footage of many of our southeastern imperiled fishes in their natural habitat or up close in aquarium settings (will be an effective education tool for the general public and natural resource managers; still photographs can never capture what live action film can); and

(4) enhance the ongoing lake sturgeon reintroduction efforts in the Tennessee River System under the leadership of the Tennessee Aquarium and Southeast Aquatic Research Institute (a long-term multi-partner effort, with agencies like the Tennessee Valley Authority, Tennessee Wildlife Resources Agency, World Wildlife Fund, and the Service, to benefit and restore an important fish back to an area where it historically occurred).

A second request for proposals was broadcast in summer 2002, and the Service has received additional proposals for work to support the Strategy. Working with partners is a key to the Service's mission and will be a key to the success-

ful implementation of this Strategy. The Service is confident that this Strategy is the beginning of an effective model for aquatic conservation.

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