



Questions and Answers Grotto Sculpin Listed as Endangered

What action is the Service taking?

The Service is listing the grotto sculpin as endangered under authority of the Endangered Species Act. To list this fish as endangered, the Service published a “proposed rule” in the *Federal Register* on September 27, 2012, that included proposed critical habitat and opened a 60-day public comment period. Before making a final decision on the listing and critical habitat proposal, the Service analyzed the public comments and new information received during the public comment period.

What is the grotto sculpin and where is it found?

The grotto sculpin is a small cave-dwelling fish. Its entire range, restricted to five cave systems and two surface streams, is within Perry County, Missouri, in an area with thousands of sinkholes and over 700 caves (collectively called a “karst system”).

Why is the Service listing the grotto sculpin as endangered?

The grotto sculpin is endemic to one karst system in Perry County. Historical population numbers are unknown, but two mass mortality events have occurred since the early 2000s. Evidence indicates that both events were caused by point-source pollution of above-ground waters that drained to underground aquatic habitats. With the restricted range and isolated nature of populations of the grotto sculpin, extinction is likely if measures are not taken to improve water quality within the watershed that feeds grotto sculpin streams.

Water quality in the Perry County karst plain is vulnerable to pollution because contaminated water can flow rapidly from the surface to below-ground aquifers and cave streams. Sinkholes that have been modified to drain adjacent land further increase the potential for contamination; run-off enters underground streams without the benefit of being filtered through vegetated buffers or substrates unless Best Management Practices are used. Water pollution not only harms the grotto sculpin but also the cave stream ecosystems and aquifer underlying the Perry County karst plain.

Why did the Service decide to exclude all critical habitat that was originally proposed for the grotto sculpin?

We can exclude an area from critical habitat if the benefits of exclusion outweigh the benefits of designation. We decided to exclude areas originally proposed as critical habitat based on a comprehensive conservation plan developed by Perry County officials and other partners called the “Perry County Community Conservation Plan.”

The plan outlines detailed conservation measures that address threats to habitats that were identified in the proposed rule. We considered this conservation plan and the working partnership when we evaluated potential exclusions from critical habitat. Based on that analysis, we determined that all areas that were proposed as critical habitat should be excluded.

What is the Perry County Community Conservation Plan?

The Perry County Community Conservation Plan (<http://bit.ly/1d49EY4>) involves 56 entities and organizations that united as the Perry County Community Economic and Environment Committee. This Committee is committed to carrying out conservation measures that benefit the grotto sculpin and address threats identified in the proposed rule. Evidence of the Committee's commitment is demonstrated by the \$250,000 that was devoted to completing this Plan. As of April 2013, the Committee became a permanent group formed to ensure that actions outlined in the Plan would be carried out into the future.

In addition to conservation measures outlined in the Plan, the Committee adopted the Missouri Department of Conservation's Best Management Practices for karst areas (available at: <http://mdc.mo.gov/your-property/improve-your-property/building-karst-best-practices>) and is committed to practices outlined in a Perry County Karst Management Plan and a Perry County Karst Watershed Plan that is in development.

Conservation projects identified in the Plan to benefit the grotto sculpin include outreach events; removing trash and debris from sinkholes; water quality monitoring; developing a new sinkhole policy and sinkhole improvement budget for the City of Perryville; and inventorying and prioritizing sinkholes targeted for cleanup, maintenance, and management. The Plan incorporates the principles of adaptive management and the document will be updated as new information becomes available. Additionally, the plan contains a monitoring component that will provide a basis for evaluating the effectiveness of the plan. In cooperation with the Missouri Department of Natural Resources and the Perry County Health Department, regular water quality monitoring is anticipated in habitats occupied by the sculpin.

Will listing the grotto sculpin as endangered affect use of personal property?

With the listing of grotto sculpin as endangered, it is illegal to "take" a grotto sculpin without a permit. Take is defined in Section 9 of the Endangered Species Act to include harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct. Activities that harm the water quality of grotto sculpin habitat could violate the Endangered Species Act. Many such activities are currently illegal under existing state law. We envision working with the Perry County Community Economic and Environment Committee and other conservation partners to improve compliance with existing water quality regulations, including implementing Best Management Practices that specifically address sinkholes (as identified in the Plan).

How can I get more information?

Information about the grotto sculpin and the final listing as endangered are available on our website at <http://www.fws.gov/midwest/endangered>. The Perry County Community Conservation Plan is available on the University of Missouri: Extension website at <http://bit.ly/1d49EY4>.

You may also write or phone:

U.S. Fish and Wildlife Service
Columbia Missouri Ecological Services Field Office
101 Park De Ville Drive, Suite A
Columbia, MO 65203
Telephone 573-234-2132