

## Questions and Answers

### **What is the Service's finding regarding the status of the Upper Missouri River DPS of Arctic grayling?**

We find that listing the Arctic grayling in the contiguous United States under the Endangered Species Act (Act) is not warranted. This finding is based upon our thorough review of the best available scientific and commercial information. As a result, we are removing the Arctic grayling from the list of candidates for Endangered Species Act protection.

### **How does the Service determine whether a species is endangered or threatened?**

Under the Act, the term "endangered species" means any species in danger of extinction throughout all or a significant portion of its range. The term "threatened species" means any species at risk of becoming an endangered species within the foreseeable future throughout all or a significant portion of its range.

The Service may determine that a species is endangered or threatened based on any of the following five factors:

- A. The present or threatened destruction, modification, or curtailment of its habitat or range;
- B. Over utilization for commercial, recreational, scientific, or education purposes;
- C. Disease or predation;
- D. The inadequacy of existing regulatory mechanisms; or
- E. Other natural or manmade factors affecting its continued existence.

The assessment of these factors is required to be based on the best scientific and commercial data available.

### **How did the Service make this decision?**

The Service analyzed the above 5 factors and evaluated habitat-related stressors on Arctic grayling populations in the Upper Missouri River basin. We determined that historical habitat-related stressors are being sufficiently minimized on Federal land (including 18 of 20 populations) by adequate regulatory mechanisms. Habitat-related stressors to one of two populations on private land are also being sufficiently minimized through the implementation of a Candidate Conservation Agreement with Assurances (CCAA).

We also evaluated other potential stressors (e.g., nonnative trout, drought, climate change) and determined that these are being effectively ameliorated by habitat restoration, the high-elevation habitats occupied by most populations, or by redundancy across the range of Arctic grayling within the Upper Missouri River basin.

Based on the adequate minimization or elimination of stressors on Arctic grayling populations in the Upper Missouri River basin, we concluded that the Upper Missouri River DPS of Arctic grayling does not meet the definition of threatened or endangered.

### **How is this finding different from the Service's 2010 finding?**

In 2010, we found that Arctic grayling in the Upper Missouri River were warranted for listing under the Act, but that listing was precluded by higher priority actions. In that finding, we identified five Arctic grayling populations within the Upper Missouri River DPS of Arctic grayling. In this finding, we have considered an additional twenty-one Arctic grayling populations as part of the Upper Missouri River DPS of Arctic grayling. These additional populations were added to the DPS in this finding for several reasons:

- 1) Since 2010, new genetic information on Arctic grayling populations in the Upper Missouri River basin became available. Multiple introduced grayling populations (i.e., those stocked in historically fishless waters within the Upper Missouri River basin) were recently analyzed and found to contain moderate to high levels of genetic diversity. Therefore, we included the additional 20 populations of Arctic grayling in our DPS designation in this finding, because of our improved understanding of their conservation value to the DPS.
- 2) In contrast with many other fish species, the Arctic grayling has a naturally occurring adfluvial (lake-dwelling) life history form. Therefore, we determined that the adfluvial populations of Arctic grayling within the Upper Missouri River basin contribute meaningfully to the conservation of the DPS.

We also now have four additional years of monitoring data from some of the Arctic grayling populations in the DPS that were not available for the 2010 finding, most notably additional data from the Big Hole River population. From this additional data, we determined that historical stressors to Arctic grayling habitat and populations are being adequately minimized to the point where the species does not meet the definition of threatened or endangered under the ESA.

The Upper Missouri River DPS of Arctic grayling now includes 26 total populations; however, our analysis in this finding determined that 6 populations are not self-sustaining, occupy unnatural habitat or are captive brood reserves. However, the remaining 20 populations are secure and adequately conserve the Arctic grayling in a variety of habitat types to the point that we no longer conclude that the species is at risk of extinction, now or in the foreseeable future, throughout all or a significant portion of its range.

### **What are Arctic grayling and what do they look like?**

The Arctic grayling is a cold-water fish belonging to the trout and salmon family. Arctic grayling have trout-like bodies with deeply forked tails, and adults typically average 12-15

inches in length. Coloration of adult Arctic grayling can be striking, and varies from silvery or iridescent blue and lavender, to dark blue. A prominent feature of Arctic grayling is the sail-like dorsal fin, which is large and vividly colored with rows of orange to bright green spots and often has an orange border.

### **What are population sizes and trends of Arctic grayling in the Upper Missouri River DPS?**

Estimated adult abundance ranged from about 100 - 25,000 individuals per population in the 20 Arctic grayling populations considered in our decision to have high conservation value. All of these populations are considered self-sustaining. Nineteen of 20 of these populations are determined to be stable or increasing in abundance.

### **Did the Service recognize and evaluate different life histories (forms) of Arctic grayling?**

Yes. In this finding, both adfluvial (lake-dwelling) and fluvial (river-dwelling) life history strategies of Arctic grayling were analyzed in the 5-factor analysis and both were considered important to the conservation of the DPS.

### **What is currently being done to conserve the Arctic grayling?**

Eighteen of the twenty Arctic grayling populations analyzed in this finding occur on Federal land. Adequate regulatory mechanisms are in place to preclude habitat degradation and keep riparian areas intact.

One of the two Arctic grayling populations on private land is being managed under a Candidate Conservation Agreement with Assurances. Since 2006, over 250 conservation projects have been implemented under this CCAA to conserve Arctic grayling and their habitat, including: riparian fencing, irrigation flow reductions, improved irrigation infrastructure, fish ladders, improved stock water systems, and both passive and active stream restoration.

We would like to recognize the contributions made by our Federal, state, and private partners, particularly Montana Fish, Wildlife, and Parks, Montana Department of Natural Resources Conservation, and private landowners in the Big Hole River valley, in addressing the stressors that may influence Arctic grayling populations.

### **Why should I care about the Arctic grayling?**

The Arctic grayling is an indicator species. Grayling depend on cold water to complete much of their life cycle. Thus, the presence of a self-sustaining Arctic grayling population indicates a healthy aquatic ecosystem. The health of Arctic grayling is strongly linked to our own well-being. These same cold water systems help support the health and economy of southwestern Montana both the residents of the area and tourists depend on same

habitats that sustains the grayling – for clean air and water, recreational opportunities and for their livelihoods. By taking action to protect imperiled native fish, wildlife and plants, we can ensure a healthy future for our community and protect treasured landscapes for future generations.

**Where can I find more information?**

A copy of our 12-month finding and other information about the Arctic grayling is available on the Internet at our websites:

<http://www.fws.gov/mountain-prairie/species/fish/grayling/grayling.htm>

or

<http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=E03Q>

You may also obtain more information by contacting the Montana Field Office at 585 Shepard Way, Helena, Montana 59601 (telephone 406-449-5225). The 12-month finding is published in today's *Federal Register* and available online at [www.regulations.gov](http://www.regulations.gov).