

Questions and Answers

Regarding the 12-month Findings for the Meltwater Lednian Stonefly, Bearmouth Mountainsnail, and Byrne Resort Mountainsnail

What is the Service's determination regarding the status the meltwater lednian stonefly?

After evaluating all the available scientific information, the Service has concluded that protection of the meltwater lednian stonefly is warranted under the ESA. However, listing the species at this time is precluded by the need to address other listings of higher priority.

The meltwater lednian stonefly will be added to the list of candidate species under the ESA and will be proposed for listing when funding and workload priorities for other listing actions allow.

If the Service proposes the meltwater lednian stonefly for listing in the future, the public will have an opportunity to comment.

Why did the Service make determine that listing the meltwater lednian stonefly was warranted?

The meltwater lednian stonefly is a narrowly-distributed endemic presently known to occur in a few cold, snowmelt- or glacier-fed high-alpine streams in Glacier National Park, Montana. The Service's status review identified habitat loss and modification resulting from the rapid disappearance of glaciers in the Park as a threat to the species, because loss of glaciers is expected to alter the thermal and hydrologic regimes of high elevation streams occupied by the species. The shrinking of glaciers in Glacier National Park has been documented during the past 100 years, and nearly all glaciers are predicted to be gone from the Park by 2030.

The meltwater lednian stonefly occurs on National Park Service lands, which protects its habitat from direct destruction or modification resulting from most human activities. However, existing regulatory mechanisms do not address environmental changes due to global climate change, which is the primary cause of the loss of glaciers and resulting threat of habitat loss and modification for the species.

Higher water temperatures, seasonal or permanent stream dewatering and changes in the timing and volume of snowmelt may change the existing habitat such that it no longer satisfies the ecological and physiological requirements for the species.

What is a candidate species?

Candidate species are plants and animals for which the Service has sufficient information on their biological status and threats to propose them for listing as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by higher priority listing actions to address species in greater need.

Candidate species receive no statutory protection under the ESA. The Service encourages voluntary cooperative conservation efforts for these species because they are, by definition,

species that warrant future protection under the ESA.

Now that the Service has designated the meltwater lednian stonefly as a "candidate," what will happen next?

When a species becomes a candidate it is given a "listing priority number" (LPN). This number is given because there are not enough Service personnel, time, or money to propose all the candidate species for listing. The purpose of the LPN is to ensure that the species that are in the most trouble are given the highest priority.

We have assigned an LPN of 4 to the meltwater lednian stonefly. The LPN can range from 1-12, so an LPN of 4 places in the upper third of the Service's nationwide listing priorities.

It is difficult to predict how long it might be before the Service prepares a proposed rule for the meltwater lednian stonefly. When the meltwater lednian stonefly might be proposed for listing will be depend on the number of LPNs 1, 2 and 3 that must be addressed by the Service and the funding available.

If the Service decides to go forward with listing the meltwater lednian stonefly as threatened or endangered, what is the process?

The Service would prepare a document, called a proposed rule, which would be published in the Federal Register and made available for public review. The public would be given at least 60 days to review the proposal and provide the Service with any comments or additional information. Public hearings could be held to gather public input. Within a year of the proposed rule, the Service would consider and analyze all the public comments and other information available to make a final decision on whether to list the meltwater lednian stonefly as threatened or endangered.

What is being done to conserve the meltwater lednian stonefly?

The Service is supporting efforts by partners in state and federal agencies, especially the U.S. Geological Survey, to collect additional data on the distribution and abundance of the meltwater lednian stonefly. In addition, the species occurs on National Park Service lands, which protects its habitat from direct destruction or modification resulting from most human activities.

What is the Service's determination regarding the status the Bearmouth and Byrne Resort mountainsnails?

After evaluating all the available scientific and commercial information, the Service has concluded that protection of the Bearmouth mountainsnail and the Byrne Resort mountainsnail is not warranted under the ESA.

Why did the Service determine that listing the Bearmouth mountainsnail and the Byrne Resort mountainsnail is not warranted?

Under the section 3(15) of the US Endangered Species Act, the Service must first determine that the petitioned entity represents a species, subspecies, or distinct population segment. That is, the entity must constitute a “species” under the definition of the ESA.

Both the Bearmouth and the Byrne Resort mountainsnails are currently considered “undescribed species.” They were initially identified in an unpublished report in 1995, but these proposed species designations have not yet been verified by the scientific community. Additionally, the proposed species designations are based on shell morphology, which is considered an unreliable trait for defining taxa within the genus *Oreohelix* (mountainsnails) because of the variation (plasticity) that can occur within and among populations and species. Corroborating data on internal anatomy and ancestry (genetic analyses) are generally needed to reach more definitive taxonomic designations for these organisms.

Currently, neither the Bearmouth mountainsnail nor the Byrne Resort mountainsnail are listed among currently recognized taxa by scientific sources such as the Council of Systematic Malacologists or the Integrated Taxonomic Information System (ITIS). Consequently, the Service concludes that the proposed species designations are highly uncertain, and that the Bearmouth mountainsnail and the Byrne Resort mountainsnail do not currently meet the criterion for a listable entity under the ESA.

Why didn’t the Service evaluate the threats to Bearmouth and Byrne Resort mountainsnails?

The Service concluded that the Bearmouth mountainsnail and Byrne Resort mountainsnails did not constitute listable entities under the US Endangered Species Act. In such cases, we do not proceed with an evaluation of the potential threats.

What is the Service doing to promote conservation of the Bearmouth and Byrne Resort mountainsnails?

Currently, very little is known about the Bearmouth and Byrne Resort mountainsnails. We encourage efforts by state and federal agencies and academic research to better understand the taxonomy, distribution, and abundance of these organisms.