

5-YEAR REVIEW

Short Form Summary

Species Reviewed: Bliss Rapids snail (*Taylorconcha serpenticola*)

Current Classification: Threatened

FR Notice announcing initiation of this review:

July 4, 2004. Endangered and Threatened Wildlife and Plants; 5-Year Review of the Bliss Rapids Snail. 69 FR 44676-44677

Lead Region/Field Office:

Region 1/ Idaho Fish and Wildlife Office, Boise, Idaho. Primary Contact: Susan Burch, (208) 378-5265.

Name of Reviewer(s):

Susan Burch (208) 378-5265

Methodology used to complete this 5-year review:

The 5-Year review of the Bliss Rapids snail was accomplished through the status review conducted for the 12-month finding to a delisting petition received December 26, 2006, from the Governor of Idaho and the Idaho Power Company. This petition requested that the Bliss Rapids snail be removed from the Federal List of Endangered and Threatened Wildlife and Plants (List). We compiled the best scientific and commercial information available regarding the past, present, and future threats faced by the species, conducted peer review on that information, and completed a structured decision analysis process.

Application of the 1996 Distinct Population Segment (DPS) Policy:

Application of the Service's 1996 DPS Policy does not apply to invertebrate species.

Review Analysis:

Please refer to the 12-month petition finding prepared by the Snake River Fish and Wildlife Office and sent to the Regional Office on November 21, 2008, for a complete discussion on the species status (including biology and habitat), 5-factor threat analysis, and evaluation of ongoing management efforts.

The Bliss Rapids snail was listed as threatened on December 14, 1992. Based on the best available information at that time we determined that the Bliss Rapids snail was threatened by the following factors: proposed construction of new hydropower dams, the operation of existing hydropower dams, degraded water quality, water diversions, the introduced New Zealand mudsnail (*Potamopyrgus antipodarum*), and the lack of existing regulatory protections.

Data collected since 1992 show that the species continues to be restricted to a small geographic area in the middle-Snake River, where it is dependent upon cold water springs and spring outflows. While some threats have been eliminated or moderated, other threats have emerged. The dependence of the Bliss Rapids snail on cold water aquatic habitat makes them particularly susceptible to changes in water quality and ground water

levels. Ground water levels in the middle-Snake River aquifer have been declining and are expected to maintain that trajectory into the future. As a result, the most upstream Bliss Rapids snail colonies (i.e., those that depend on the uppermost strata of ground water) are especially vulnerable with little chance for successful recolonization. Recent data show that these springs contain rare alleles and loss of one or more colonies successively reduces genetic diversity and the ability for the species to adapt to changing environmental conditions. The limited range, narrow habitat requirements, and presence of non-native snails that compete for space and food, exacerbates this threat. If ground water levels continue to decline as expected, the Bliss Rapids snail is likely to become endangered in the foreseeable future throughout its range.

After a thorough review of the best available information and scientific literature, conducting peer review on that information, and completing a structured decision making workshop, we have determined the weight of the evidence indicates the species is likely to become endangered in the foreseeable future throughout all of its range. Therefore, we recommend a not warranted 12-month finding in response to the delisting petition.

Recommendations for Future Actions:

None.

U.S. FISH AND WILDLIFE SERVICE

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Pre-1996 DPS listing still considered a listable entity? NA

Recommendation resulting from the 5-year review:

- Delisting
- Reclassify from Endangered to Threatened status
- Reclassify from Threatened to Endangered status
- No Change in listing status

Lead Field Supervisor, Fish and Wildlife Service



Date 7/13/09

