

Black Canyon Pyrg (*Pyrgulopsis plicata*)

Species Status Statement.

Distribution

The currently understood distribution of Black Canyon pyrg is a series of four spring complexes adjacent to the East Fork Sevier River in Garfield County, Utah (Hershler 1995, Hershler 1998). All of these spring complexes emerge from steep, rocky, densely vegetated slopes, feeding ponds on the west side of the East Fork Sevier River. All four of the spring complexes are on private property.

Table 1. Utah counties currently occupied by this species.

Black Canyon Pyrg
GARFIELD

Abundance and Trends

Robert Hershler and Peter Hovingh first collected this species in 1993, and described it as a newly discovered species in 1998 (Hershler 1998). Hershler described the species as common when first collected, and habitat disturbance was slight (Oliver and Bosworth 1999). Utah Division of Wildlife Resources (UDWR) personnel visited the type locality on May 3, 2013, and described the density of springsnails as “abundant”. The only quantitative description of this species is from 2015, when managers surveyed four spring complexes in the area, finding springsnails in each spring (Wheeler 2015). In two 100 cm² plot surveys conducted in these spring complexes, 12 and 350 springsnails were counted, respectively (Wheeler 2015).

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Springsnails are dependent on persistent springs with high water quality, and they often occur within a limited distance from the springhead (Hershler 1998).

Threats to the Species

The limited distribution of this snail makes the species susceptible to any catastrophic natural events, or human actions, that could destroy or degrade the spring habitat where it lives. Small, isolated seeps, springs, or spring complexes are very susceptible to small-scale habitat destruction or modifications that alter the springhead or flow. Potential threats include factors that decrease flow regionally such as prolonged drought or groundwater pumping. There are

also potential local threats to individual springs such as wildfire, nonnative plants and animals, ungulate trampling and grazing, herbicide use, spring outflow alteration, and diversion of spring discharge. Managers have not yet conducted a species-specific threat assessment for the four Black Canyon pyrg sites, however, dense vegetation and difficult terrain protect the habitat from threats most commonly associated with spring wetlands (Wheeler 2015). Additionally, the current landowner has removed grazing from this area (Wheeler 2015).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Black Canyon Pyrg
Very High
Small Isolated Populations

Rationale for Designation.

Black Canyon pyrg appears to be restricted to a small, isolated spring system. Direct human pressures, and climate change, presently threaten many springs and spring systems in Utah, and managers and scientists expect these issues to intensify. In order to maintain understanding of the distribution and status of this species in Utah, managers need to conduct occasional surveys, and monitor potential threats. Black Canyon pyrg is included in the Conservation Agreement for Springsnails in Nevada and Utah (Springsnail Conservation Team 2017). These activities will help prevent the possibility of Endangered Species Act listing of this species.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate management of this species, which is required to prevent Endangered Species Act listing and lessen related economic impacts. The listing of Black Canyon pyrg would impact grazing practices and the management and development of water resources in Garfield County. There would also be increased costs of regulatory compliance for many land-use decisions and mitigation costs.

Literature Cited.

Hershler, R. 1995. Field survey and preliminary taxonomy of Great Basin springsnails. Final report for Cooperative Agreement P 852-A1-0035 between U.S. Department of the Interior, Bureau of Land Management, and the Smithsonian Institution. 11 pp+ 2 appendices.

Hershler, R. 1998. A systematic review of the hydrobiid snails (Gastropoda: Rissooidea) of the Great Basin, western United States. Part I. Genus *Pyrgulopsis*. *Veliger* 41: 1-132

Oliver, G.V., and W.R. Bosworth III. 1999. Rare, imperiled, and recently extinct or extirpated mollusks of Utah: a literature review. Utah Division of Wildlife Resources publication number 99-29. Salt Lake City, Utah, USA.

Salafsky, N., D. Salzer, A.J. Stattersfield, C. Hilton-Taylor, R. Neugarten, S.H.M. Butchart, B. Collen, N. Cox, L.L. Master, S. O'Connor, and D. Wilkie. 2008. A standard lexicon for biodiversity conservation: unified classifications of threats and actions. *Conservation Biology* 22: 897–911.

Springsnail Conservation Team. 2017. Conservation Agreement for Springsnails in Nevada and Utah. Nevada Division of Wildlife and Utah Division of Wildlife Resources agreement. 13 pp plus signatory pages.

Utah Division of Wildlife Resources [UDWR]. 2015. Utah Wildlife Action Plan: A plan for managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act 2015-2025. Publication Number 15-14, 385 pp.

Wheeler, K. 2015. Black Canyon Pyrg assessment at Black Canyon. Washington County Field Report. Utah Department of Natural Resources, Division of Wildlife Resources.