

## Toquerville Springsnail (*Pyrgulopsis kolobensis*)

### **Species Status Statement.**

#### Distribution

The currently understood distribution of Toquerville springsnail is a series of springs along Ash Creek in Washington County, Utah (Hershler et al. 2017). This area is above a pumping station that provides water for municipal and agricultural use.

Table 1. Utah counties currently occupied by this species.

Toquerville Springsnail
WASHINGTON

#### Abundance and Trends

Only a few individuals were found in April 2014 (Hershler et al. 2017), and it was not found during surveys after a flood in October 2017 deposited a 5-cm layer of sediment over the spring source. Robert Hershler subsequently described this species in 2017 using specimens from 1984 and 1977 collections (Hershler et al. 2017). No recent surveys have been conducted to evaluate abundance or trends.

### **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 Toquerville springsnail, but they note the springs in which it occurs are above a pumping station that provides water for municipal and agricultural use.

Table 2. Summary of a statewide-scale threat assessment and prioritization completed in 2013 (UDWR 2015; Salafsky et al. 2008). Note that these threat rankings do not apply at the scale of local populations; a threat ranked medium at the overall, statewide level may be the most important threat to a local population. The threat assessment provides more information not presented here, including lower ranked threats, crucial data gaps, and definitions for all the threats and data gaps.

<b>Toquerville Springsnail</b>
<b>No Identified Threats - Data Gaps Only</b>

### **Rationale for Designation.**

Toquerville springsnail 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 develop a better understanding of the distribution and status of this species in Utah, managers need to conduct occasional surveys, and monitor potential threats. 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. An ESA listing of Toquerville springsnail would have unknown economic impacts to the city of Toquerville in Washington County. Designated Sensitive Species with no identified threats, only data gaps, will be researched until concerns are allayed, or specific threats are identified for management. In the absence of specific threats to manage, generic measures to protect springs are recommended.

### **Literature Cited.**

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Hershler, R., H.-P. Liu, C. Forsythe, P. Hovingh, and K. Wheeler. 2017. Partial revision of the *Pyrgulopsis kolobensis* complex (Caenogastropoda: Hydrobiidae), with resurrection of *P. pinetorum* and description of three new species from the Virgin River drainage, Utah. *Journal of Molluscan Studies* 83: 161-171.

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biodiversity conservation: unified classifications of threats and actions. *Conservation Biology* 22:897–911.

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