

Southern Bonneville Pyrg (*Pyrgulopsis transversa*)**Species Status Statement.**Distribution

This species is known from six springs in north-central Utah. Four of the springs are located in Tooele County, one is in Utah County, and one is in Sanpete County (Hershler 1998). In 2017 Liu et al. (2017) suggested that southern Bonneville pyrg and Ninemile pyrg (*Pyrgulopsis nonaria*) be synonymized with Bear Lake springsnail (*Pyrgulopsis pilsbryana*) based on a lack of genetic difference between the three species, but additional research on genetics, morphology, and distribution of these three species and the other *Pyrgulopsis* in the region are needed to fully understand whether these three species should collectively be called Bear Lake springsnail.

Table 1. Utah counties currently occupied by this species.

<b>Southern Bonneville Pyrg</b>
SANPETE
TOOELE
UTAH

Abundance and Trends

Recent taxonomic research indicates a need for a comprehensive status assessment of *Pyrgulopsis* in north-central Utah.

**Statement of Habitat Needs and Threats to the Species.**Habitat Needs

Southern Bonneville pyrg occurs in relatively small, mineralized, spring-fed water bodies. Individuals are commonly found on or between aquatic vegetation, bedrock, or pieces of travertine (Hershler 1998). They tend to congregate near the head of springs, where conditions are presumably more stable in comparison to downstream locations (Hershler 1998).

Threats to the Species

The localized distribution of this snail makes the species susceptible to catastrophic natural events, or human actions, that could destroy or degrade the spring habitats 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. Specific threats that have been identified for this species include improper grazing practices and spring alteration (Hershler 1995; Oliver and Bosworth 1999).

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).

<b>Southern Bonneville Pyrg</b>	
<b>High</b>	
	Small Isolated Populations
<b>Medium</b>	
	Improper Grazing (current)

### **Rationale for Designation.**

Southern Bonneville pyrg occurs in small, isolated spring systems. 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 improve understanding of the distribution and status of this species in Utah, managers need to conduct occasional surveys, and monitor potential threats. Southern Bonneville pyrg is included in the Conservation Agreement for Springsnails in Nevada and Utah (Springsnail Conservation Team 2017).

### **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 southern Bonneville pyrg would impact grazing practices and the management and development of water resources in Tooele, Utah, and Sanpete counties in Utah. There would also be increased costs of regulatory compliance for many land-use decisions and mitigation costs.

### **Literature Cited.**

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