

Northwest Bonneville Pyrg (*Pyrgulopsis variegata*)**Species Status Statement.**Distribution

Northwest Bonneville pyrg occurs in small springs in the West Desert of Utah and Nevada (Hershler 1998). In Utah, this species lives in the most northwestern portion of Tooele County and the far western portion of Box Elder County (Oliver and Bosworth 1999).

Table 1. Utah counties currently occupied by this species.

Northwest Bonneville Pyrg
BOX ELDER
TOOELE

Abundance and Trends

The currently understood distribution of Northwest Bonneville pyrg in Utah is nine springs. Eight of these springs are in Box Elder County, and one is in Tooele County (Hershler 1998). Hershler (1995) reported the species was common in most of the springs it inhabited; but specified no estimates or trends in abundance.

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

Northwest Bonneville pyrg occurs in small rheocrenes (springs that emerge flowing from the ground) with temperatures between 13 and 19° C. Surveyors find them among aquatic vegetation, bedrock, or pieces of travertine (Hershler 1998). These snails 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 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 (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).

Northwest Bonneville Pyrg
High
Small Isolated Populations

Rationale for Designation.

Northwest Bonneville pyrg appears to be restricted to a handful of 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. Northwest Bonneville 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. An ESA listing of Northwest Bonneville pyrg would impact management and development of water resources in the northwestern portion of Tooele County and western portion of Box Elder 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 reports 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.

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

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