

Bifid Duct Pyrg (*Pyrgulopsis peculiaris*)**Species Status Statement.**Distribution

The currently understood distribution of bifid duct pyrg is eight spring complexes in Millard County, Utah and White Pine County, Nevada (Oliver and Bosworth 1999). Six of these are in Utah, with one on private land and five on public land.

- Church Spring is on private land north of the town of Holden.
- The Bureau of Land Management manages Antelope Spring and Red Cedar Spring, which are both in the House Range.
- Fishlake National Forest manages Maple Grove and Copleys Cove, both in the Pavant Range, and Big Spring, which is in the Canyon Mountains.

Table 1. Utah counties currently occupied by this species.

Bifid Duct Pyrg
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Abundance and Trends

Robert Hershler first collected this species in 1993, and described it as a newly discovered species in 1998 (Hershler 1998). In 2016, Don Sada accompanied Utah Division of Wildlife Resources (UDWR) staff to visit all six Utah sites and sample their springsnails. They estimated abundance of snails by gently agitating a ~12 cm diameter kitchen sieve (1 mm to 1.5 mm mesh) over substrate or in vegetation for 3 seconds. Using the average of repeated samples at each site, they used these qualitative abundance categories to describe results: None; Scarce: average catch per unit effort < 6 snails; Common: average catch per unit effort 6 - 20 snails; Abundant: average catch per unit effort > 20 snails.

- Antelope Spring – scarce.
- Red Cedar Spring – abundant.
- Big Spring – scarce.
- Church Spring – abundant.
- Maple Grove - abundant.
- Copleys Cove - abundant.

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 aquatic 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 bifid duct pyrg sites in Utah. Immediate threats to the six Utah populations were not evident in 2016, except perhaps at Church Spring where an unknown portion of the population may now be restricted by the installation of a pipe that replaced a ditch. The habitat at some sites, particularly at Red Cedar Spring and Maple Grove, was in good condition.

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).

Bifid Duct Pyrg
High
Droughts
Improper Grazing (current)
Roads – Transportation Network
Medium
Small Isolated Populations
Presence of Diversions

Rationale for Designation.

Bifid duct 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 maintain understanding of the distribution and status of this species in Utah, managers need to conduct occasional surveys, and monitor potential threats. Bifid duct 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. The listing of bifid duct pyrg would impact grazing practices and the management and development of water resources in Millard County. There would also be increased costs of regulatory compliance for many land-use decisions and mitigation costs.

Literature Cited.

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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. Utah Division of Wildlife Resources publication number 99-29. Salt Lake City, Utah, USA.
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