

Hamlin Valley Pyrg (*Pyrgulopsis hamlinensis*)

Species Status Statement.

Distribution

The currently understood distribution of Hamlin Valley pyrg is White Rock Cabin Springs, a small spring complex that straddles the Utah-Nevada border in Beaver County, Utah, and Lincoln County, Nevada (Hershler 1995, Hershler 1998). The Utah portion of the complex is all on private land, while the Nevada portion is contained within the White Rock Range Wilderness managed by the Bureau of Land Management. Several springs emerge on both sides of the state line, and all flow east approximately 340 meters into a manmade pond.

Table 1. Utah counties currently occupied by this species.

Hamlin Valley Pyrg
BEAVER

Abundance and Trends

Robert Hershler first collected this species in 1993, and described it as a newly discovered species in 1998 (Hershler 1998). UDWR personnel visited the site in 2009, and found the species to be abundant and the habitat in relatively good condition. In 2010, the landowner accompanied UDWR personnel to visit the site again. They observed the species but did not assess its distribution or abundance. In 2012, UDWR personnel conducted distribution and abundance surveys at White Rock Cabin Springs (Wheeler 2012). They found the Hamlin Valley pyrg downstream of six of the eight springheads they surveyed. Springsnail density was examined at three 100 cm² plots throughout the wetland. The densities at these plots ranged between zero and 880 springsnails, with an average of 384 springsnails per plot (Wheeler 2012).

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 Hamlin Valley pyrg sites, however, known immediate threats at this site appear low (Wheeler 2012). A portion of the population lives within the White Rock Range Wilderness, and thus experiences protection from development and many other anthropomorphic threats. The current private landowner on the Utah side has indicated that he has no desire to develop the springs or wetland further, and he does not use it for livestock. Elk, deer, and wild horses occasionally visit the springs, but currently do not appear to pose a threat. The springs feed into a man-made pond, but the maximum elevation of this pond is below than the natural downstream extent of springsnail occurrence in the spring outflows, and thus the pond does not impact the population (Wheeler 2012).

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).

Hamlin Valley Pyrg
Very High
Small Isolated Populations

Rationale for Designation.

Hamlin Valley 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. Hamlin Valley 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 Hamlin Valley pyrg would impact management and development of water

resources in Beaver County. There would also be increased costs of regulatory compliance for many land-use decisions and mitigation costs.

Literature Cited.

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