

Otter Creek Pyrg (*Pyrgulopsis fusca*)

Species Status Statement.

Distribution

The currently understood distribution of this freshwater snail is three locations in southern Utah (Hershler 1998). One location is in Piute County, and two locations are in Sevier County.

Table 1. Utah counties currently occupied by this species.

Otter Creek Pyrg
PIUTE
SEVIER

Abundance and Trends

Managers know little about the status of this species. The scientific collector who performed surveys of the known Utah localities for this species did not provide any quantitative estimates of snail density (Hershler, 1995).

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Hershler (1995) noted that all three locations for this species were rheocrenes (a rheocrene is a spring that emerges from the ground as a flowing spring) at elevations between 6,720 and 7,250 feet. Water temperatures at these sites ranged from 7-13 degrees Celsius, and the conductivity of the water ranged from 190-200 micromhos/cm. The location in Piute County is described as a spring brook, fed by many small springs, that is 2 centimeters deep and 1 meter wide (Hershler, 1995).

Threats to the Species

The restricted and localized distribution of this species in Utah exposes its populations to catastrophic natural events, anthropogenic habitat destruction, and various forms of interactions with other species. The invasive New Zealand mud snail occurs elsewhere within the Otter Creek drainage. Managers do not know if they have yet invaded Otter Creek pyrg habitats, or what effect they may have on springsnail populations there. Based on impacts observed elsewhere, this invasive species could pose significant competition, parasite, or other risks to the Otter Creek pyrg.

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).

Otter Creek Pyrg
High
Invasive Wildlife Species - Non-native
Small Isolated Populations

Rationale for Designation.

Otter Creek pyrg lives in only three springs in Utah. 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. These activities will help prevent the possibility of Endangered Species Act listing of this species. Otter Creek 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 Otter Creek pyrg would impact management and development of water resources within Piute and Sevier counties. 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 report for Cooperative Agreement P 852-A1-0035 between U.S. Department of the Interior, Bureau of Land Management, and the Smithsonian Institution.
- Hershler, R. 1998. A systematic review of the Hydrobiid Snails (Gastropoda: Rissooidea) of the Great Basin, western United States. Part I. Genus *Pyrgulopsis*. *The Veliger* 41(1):1-132.
- Salafsky, N., D. Salzer, A.J. Stattersfield, C. Hilton-Taylor, R. Neugarten, S.H.M. Butchart, B. Collen, N. Cox, L.L. Master, S. O'Connor, and D. Wilkie. 2008. A standard lexicon for biodiversity conservation: unified classifications of threats and actions. *Conservation Biology* 22: 897–911.

Springsnail Conservation Team. 2017. Conservation Agreement for Springsnails in Nevada and Utah. Nevada Division of Wildlife and Utah Division of Wildlife Resources agreement. 13 pp plus signatory pages.

Utah Division of Wildlife Resources [UDWR]. 2015. Utah Wildlife Action Plan: A plan for managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act 2015-2025. Publication Number 15-14, 385 pp.