

Nuwuvi Pyrg (*Pyrgulopsis nuwuvi*)

Species Status Statement.

Distribution

The currently understood distribution of Nuwuvi pyrg is a spring complex at the headwaters of Water Canyon, in the Quail Creek drainage of the Pine Valley Mountains of Washington County, Utah (Hershler et al. 2017). This spring complex is on a private land inholding within Dixie National Forest.

Table 1. Utah counties currently occupied by this species.

Nuwuvi Pyrg
WASHINGTON

Abundance and Trends

UDWR personnel first collected some springsnail specimens from the spring complex in 2016. Robert Hershler subsequently described this “new” species in 2017 (Hershler et al. 2017). No surveys to evaluate abundance or trends have yet been completed.

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 exposes the species 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 full species-specific threat assessment for Nuwuvi pyrg. However, during the 2016 site visit they noted livestock impacts to the springs in which it occurs.

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).

Nuwuvi Pyrg
No Identified Threats - Data Gaps Only

Rationale for Designation.

Nuwuvi 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 develop a better 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.

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 Nuwuvi pyrg would have unknown economic impacts to Dixie National Forest and Washington County. Designated Sensitive Species with no identified threats, only data gaps, will be researched until concerns are allayed, or specific threats are identified for management. In the absence of specific threats to manage, generic measures to protect springs are recommended.

Literature Cited.

- Hershler, R. 1998. A systematic review of the hydrobiid snails (Gastropoda: Rissooidea) of the Great Basin, western United States. Part I. Genus *Pyrgulopsis*. *Veliger* 41: 1-132.
- Hershler, R., H.-P. Liu, C. Forsythe, P. Hovingh, and K. Wheeler. 2017. Partial revision of the *Pyrgulopsis kolobensis* complex (Caenogastropoda: Hydrobiidae), with resurrection of *P. pinetorum* and description of three new species from the Virgin River drainage, Utah. *Journal of Molluscan Studies* 83: 161-171.
- 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.

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.