

Stygobromus jemezensis (Jemez Mountains Amphipod)

No Photo Available

Taxonomy

- **Class:** MALACOSTRACA
- **Order:** CRUSTACEA
- **Family:** CRANGONYCTIDAE
- **Genus:** Stygobromus
- **Scientific Name:** Wang and Holsinger, 2001
- **Common Name:** Jemez Mountains Amphipod
- **Synonyms:**
- **Taxonomic Name Source:** Wang, D. and J.R. Holsinger. 2001. Systematics of the subterranean amphipod genus *Stygobromus* (Crangonyctidae) in western North America, with emphasis on species of the hubbsi group. *Amphipacifica*, 3(2): 39-147.

Agency Status

- **NMDGF:**
- **Federal Status:**
- **BLM Sensitive:**
- **USFS:**
- **IUCN Red List:** [Not Evaluated](#)
- **Nature Serve Global:** [G1](#)
- **NHNM State:** S1
- **NM Endemic:** YES

Description

The Jemez Mountains Amphipod (*Stygobromus jemezensis*) is a medium sized ground water amphipod; the largest females and males are 7 mm and 4.5 mm, respectively. It appears to be closely related to *S. arizonensis* due to the structure of the gnathopods (the appendages on crustaceans that are used for grasping and prehension). It can be distinguished as the propod of the first gnathopod has more teeth on the palmar margin, preopod six has a distinct posterior lobe, the posterior margins of the pleonal plates have one setule, uropods one and two have more spines on the rami, uropod 3 has a proportionately broad peduncle, and the telson has short spines and a slight apical notch (Wang and Holsinger 2001).

Habitat and Ecology

Like most other member of the suborder Grammaridea, this species is found in a subterranean environment; it was discovered in a deep freshwater well (Wang and Holsinger 2001). Restriction to groundwater aquifers inhibits dispersal abilities, resulting in extreme isolation. Little else is known about the ecology of this species.

Geographic Range:

The Jemez Mountains Amphipod (*Stygobromus jemezensis*) is known only from the type locality, in Bland, New Mexico (Wang and Holsinger 2001). Bland is now an unoccupied ghost town on private property on the Pajarito Plateau of the Jemez Mountains, in north-central New Mexico. All of the structures were destroyed in the 2011 Las Conchas fire.

Conservation Considerations:

There are no conservation measures in place for this species. Though it has been petitioned for listing under the United

States Endangered Species Act (ESA) (Rosmarino and Tutchtton 2007), the US Fish and Wildlife Service found the petition lacked substantial scientific information to warrant listing (USFWS 2009). Therefore, the species is not currently protected under the ESA. Research is needed to better understand the distribution, population size and trend, habitats and ecology, and threats to this narrowly endemic species.

Threats:

The threats to this species are not known, as the habitat and ecology are not well understood. As the species is restricted to a deep freshwater well, any potential drawdown of the aquifer, as a result of increasing incidence and severity of drought due to climate change, for example, may be problematic. In addition, many species of *Stygobromus* are used as biological indicators of water quality and therefore, may be sensitive to groundwater pollution (Wang and Holsinger 2001).

Population:

Nothing is known about the population size and trend of this species. It is unclear whether it has been seen since the type specimen was collected in 1994 (Wang and Holsinger 2001). As it is only known from private property, surveys may be difficult.

References:

- Wang, D. and Holsinger, J.R.. 2001. Systematics of the subterranean amphipod genus *Stygobromus* (Crangonyctidae) in western North America, with emphasis on species of the *hubbsi* group. *Amphipacifica* 3: (39-147).
- [U.S. Fish and Wildlife Service \(USFWS\). 2009. Endangered and threatened wildlife and plants: Partial 90-day finding on a petition to list 475 species in the southwestern United States as Threatened or Endangered with Critical Habitat. Federal Register 74: \(419-427\).
<https://www.govinfo.gov/content/pkg/FR-2009-01-06/pdf/E8-31454.pdf>](#)
- Rosmarino, N.J. and Tutchtton, J.J.. 2007. A Petition to List All Critically Imperiled or Imperiled Species in the Southwest United States as Threatened or Endangered Under the Endangered Species Act, 16 U.S.C. §§ 1531 et seq.. Forest Earth Guardians, Santa Fe, NM .

More Information