

Plutomurus grahami (a cave obligate springtail)

No Photo Available

Taxonomy

- **Class:** COLLEMBOLA
- **Order:** ENTOMOBRYOMORPHA
- **Family:** TOMOCERIDAE
- **Genus:** Plutomurus
- **Scientific Name:** *Plutomurus grahami* (Christiansen, 1980)
- **Common Name:** a cave obligate springtail
- **Synonyms:**
- **Taxonomic Name Source:** Bellinger, P.F., K.A. Christiansen, and F. Janssens. 1996-2020. Checklist of the Collembola of the World. Online. Available: <http://www.collembola.org> (accessed 2020).

Agency Status

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

Description

This springtail is white in color with bluish grey pigment spreading over the tergites of the body and top of the head. It is only one of four species in this genus known from North America; it is the eastern most representative. It is likely most closely related to *Tomocerus californicus*, though it can be readily distinguished by the small number of intermediate mucronal teeth, among other differences (Christiansen 1980).

Habitat and Ecology

Little is known about the habitat and ecology of this cave dwelling collembola. Species in this genus are among the largest spring-tails, often measuring a length of 5mm. They typically occur under loose bark, in damp, decaying logs, in moss, or on the ground under leaves, logs, or other objects (Folsom 1913). Tererro Cave, where the species is found, is located in the Pecos Wilderness, at the bottom of a cliff, on the west side of the Pecos River. It is named after the former mining town of Tererro, which is nearby. It is a limestone cave containing more than 0.4 km of passages and rooms. The sound of flowing water can be heard in some caverns and numerous speleothems have formed due to water dripping from the cave ceiling. This cave has profound spiritual significance for the Pueblo of Jemez (McQuillan 2022).

Geographic Range:

This species is known only from Terrero Cave, in Terrero, in the Pecos Wilderness of New Mexico, in the United States. It was found at the type locality in 1975 (Christiansen 1980), and it is unclear if it has been observed since then. Whether it may be found in neighboring cave systems is unknown.

Conservation Considerations:

Little is known about this species. Therefore, research is needed on the population status, threats, and habitats and ecology. Surveys in neighboring cave systems might also reveal whether this species is endemic to Tererro Cave.

Threats:

The threats to this species are not known. Tererro Cave was gated by the state of New Mexico in the 1980s, at the request of Jemez Pueblo. This was done to prevent vandalism, littering, and desecration, which had apparently been ongoing in the decades prior to being gated (McQuillan 2022). This likely protects the collembola from most threats.

Population:

Nothing is known about the population size and trend of this species. It is known from just one cave in New Mexico, so it is likely quite rare. It is unknown whether the species has been observed since it was first collected in 1975 (Christiansen 1980).

References:

- Christiansen, K.A.. A new Nearctic species of the genus *Tomocerus* (Collembola: Entomobryidae). *Proceedings of the Iowa Academy of Science* 87: (121-123).
- Folsom, J.W.. 1913. North American spring-tails of the subfamily Tomocerinae. *Proceedings of the United States National Museum* 46: (451-472).
- [McQuillan, D.. 2022. Caves in the Upper Pecos Watershed. 2022 New Mexico Geological Society Annual Spring Meeting & Ft. Stanton Cave Conference , Socorro, NM : \(61\). https://doi.org/10.56577/SM-2022.2850](https://doi.org/10.56577/SM-2022.2850)

More Information

