

# Texella longistyla (a cave obligate harvestman)

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## Taxonomy

- **Class:** ARACHNIDA
- **Order:** Chelicerata
- **Family:** PHALANGODIDAE
- **Genus:** Texella
- **Scientific Name:** *Texella longistyla* Ubick and Briggs, 1992
- **Common Name:** a cave obligate harvestman
- **Synonyms:**
- **Taxonomic Name Source:** Ubick, D. and T.S. Briggs. 1992. The harvestman family Phalangodidae. 3. Revision of *Texella* Goodnight and Goodnight (Opiliones: Laniatores). Texas Mem. Mus., Speleol. Monogr. 3:155-240.

## Agency Status

- **NMDGF:**
- **Federal Status:**
- **BLM Sensitive:**
- **USFS:**
- **IUCN Red List:** [Not Evaluated](#)
- **Nature Serve Global:** [G2](#)
- **NHNM State:** S1
- **NM Endemic:** NO

## Description

*Texella* species are small arachnids, with round bodies and four sets of long, jointed legs. They have relatively large pedipalps, that are covered in spines, and large chelicera as well. This species is very small, measuring about 1.5 mm in total body length. The color is yellowish white, though one epigeal specimen collected outside of a cave was yellowish orange. The only other *Texella* species in the region, *T. welbourni*, lacks eyes (Ubick and Briggs 1992).

## Habitat and Ecology

Many species in this genus are cave obligates, and while this species has been found in cave habitats, it has also been found at the soil surface in an oak-juniper forest adjacent to a mesic riparian woodland. In the latter case, the specimen was found a moist microenvironment underneath a decaying prickly pear cactus (Ubick and Briggs 1992). Little else is known about the habitats and ecology of this species.

## Geographic Range:

This harvestman is known only from several occurrences in Carlsbad Caverns and Guadalupe Mountains National Parks, in Eddy County, New Mexico and Culberson, County, Texas, respectively. At Carlsbad Caverns, the species has been collected in both Musk Ox and Doc Burito Caves. In the Guadalupe Mountains, the species was collected in

McKittrick Canyon. While many species in this genus are cave obligates (troglodionts), this species has been found in caves, as well as outside of caves, in a moist environment under a decaying cactus (Ubick and Briggs 1992).

## Conservation Considerations:

There are no conservation measures in place for this species. While all known occurrences are currently located on National Park lands, this may not protect cave habitats from contamination from nearby oil and gas drilling, which may be the primary threat. This species is poorly understood, so research on the distribution, population size and trend, habitats and ecology, and threats is needed.

## Threats:

Threats to this species are not well understood. All known occurrences of this species are from National Parks, and therefore may be remote from some threats. However, Carlsbad Caverns and the Guadalupe Mountains sit at the convergence of the Delaware and Permian Basins, which is an extremely active oil and gas region. Oil and gas development in proximity to Carlsbad Caverns National Park may adversely impact the geology of the caverns and contaminate groundwater resources. In addition, oil and gas drilling could leak toxic and flammable gas or fluids into the passages of caves, killing the cave life and compromising the fragile cave ecosystems (Benck *et al.* 2017). Therefore, drilling in proximity to the habitat of this species is likely the most serious threat.

## Population:

Nothing is known about population size and trend for this poorly studied species. It has been found in a limited number of sites, so far, and therefore is likely quite rare. It is unclear if it has been observed since 1989, the latest collection date referenced in the description paper (Ubick and Briggs 1992).

## References:

- Ubick, D. and Briggs, T.S.. 1992. The harvestman family Phalangodidae. 3. Revision of *Texella* Goodnight and Goodnight (Opiliones: Laniatores). *Texas Memorial Museum Speleological Monographs* 3: (155-240).
- Benck, K.M., Allen, K., Nadeau, A.J., Hutchins, H., Davis, A.M. and Robertson, A.. 2017. Carlsbad Caverns National Park: Natural Resource Condition Assessment. Natural Resource Report NPS/CAVE/NRR—2017/1466. National Park Service, Fort Collins, CO .

## More Information