

Tooth Cave Pseudoscorpion
(Tartarocreagris texana)
5-Year Status Review:
Summary and Evaluation

U.S. Fish and Wildlife Service
Austin Ecological Services Field Office
Austin, Texas
July 25, 2023

5-YEAR REVIEW

Tooth Cave Pseudoscorpion (*Tartarocreagris texana*)

1.0 GENERAL INFORMATION

1.1 Listing History

Species: Tooth Cave Pseudoscorpion (*Tartarocreagris texana*)

Date listed: September 16, 1988

FR citation(s): 53 FR 36029

Classification: Endangered

Critical habitat/4(d) rule/Experimental population designation/Similarity of appearance listing: Not applicable

1.2 Methodology used to complete the review:

The U.S. Fish and Wildlife Service (Service) most recently evaluated the biology and status of the Tooth Cave pseudoscorpion as part of a status review conducted on July 6, 2018. We examined whether new information was available and whether that new information would alter or affect analyses and conclusions made in the previous status review. Data for this current review were solicited from interested parties through a Federal Register notice announcing the review on January 11, 2023. We also contacted State agencies, species experts, and partners to request any data or information we should consider in our review. Additionally, we conducted a literature search and a review of information in our files.

1.3 FR Notice citation announcing the species is under active review:

88 FR 1602, Endangered and Threatened Wildlife and Plants; Initiation of 5-Year Status Reviews of 31 Species in the Southwest, January 11, 2023

2.0 REVIEW ANALYSIS

Section 4 of the Act (16 U.S.C. 1533) and its implementing regulations (50 CFR part 424) set forth the procedures for determining whether a species meets the definition of “endangered species” or “threatened species.” The Act defines an “endangered species” as a species that is “in danger of extinction throughout all or a significant portion of its range,” and a “threatened species” as a species that is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” The Act requires that we determine whether a species meets the definition of “endangered species” or “threatened species” due to any of the five factors described below.

Section 4(a) of the Act describes five factors that may lead to endangered or threatened status for a species. These include: A) the present or threatened destruction, modification, or curtailment of its habitat or range; B) overutilization for commercial, recreational, scientific, or educational purposes; C) disease or predation; D) the inadequacy of existing

regulatory mechanisms; or E) other natural or manmade factors affecting its continued existence.

The identification of any threat(s) does not necessarily mean that the species meets the statutory definition of an “endangered species” or a “threatened species.” In assessing whether a species meets either definition, we must evaluate all identified threats by considering the expected response of the species, and the effects of the threats—in light of those actions and conditions that will ameliorate the threats—on an individual, population, and species level. We evaluate each threat and its expected effects on the species, then analyze the cumulative effect of all of the threats on the species as a whole. We also consider the cumulative effect of the threats in light of those actions and conditions that will have positive effects on the species—such as any existing regulatory mechanisms or conservation efforts. The Service recommends whether the species meets the definition of an “endangered species” or a “threatened species” only after conducting this cumulative analysis and describing the expected effect on the species now and in the foreseeable future.

2.1 Distinct Population Segment (DPS) policy (1996):

Not applicable

2.2 Updated Information and Current Species Status

2.2.1 Biology and Habitat:

There is no new information on the biology and habitat of the Tooth Cave pseudoscorpion. This species is still known only from five caves (i.e., one cave cluster and three individual caves) in the Jollyville Plateau Karst Fauna Region.

In 2021, Veni and Jones (2021, entire) reevaluated and updated the Karst Fauna Regions of Travis and Williamson counties, Texas including the Jollyville Plateau Karst Fauna Region. However, this update did not result in significant changes to the range of the Tooth Cave pseudoscorpion. Thus, our July 6, 2018, 5-year review still provides the most up to date information on this species.

2.2.2 Threats Analysis (threats, conservation measures, and regulatory mechanisms):

There is no new information on threats, conservation measures, or regulatory mechanisms. Please see our July 6, 2018, 5-year review for the most recent information on this species.

2.3 Synthesis:

After reviewing the best available scientific information, we conclude that the Tooth Cave pseudoscorpion remains an endangered species. The evaluation of threats affecting the species under the factors in 4(a)(1) of the Act and analysis of the status of the species in our July 6, 2018, 5-year review remains an accurate reflection of the species’ current status.

3.0 RESULTS

3.1 Recommended Classification:

No change is needed

3.2 New Recovery Priority Number:

No Change Recommended

Brief Rationale:

A Recovery Priority Number of 2C is indicative of a taxon with a high degree of threat, a high recovery potential, and the taxonomic standing of a species. The C indicates that the species' recovery conflicts with water demands, development projects, or other forms of economic activity. The Tooth Cave pseudoscorpion continues to be threatened by a high degree of habitat destruction, disturbance, and degradation across its range. However, we consider this species' potential for recovery to be feasible through the concerted efforts of Service personnel and our partners to restore, enhance, and protect habitat.

3.3 Listing and Reclassification Priority Number: Not applicable

Reclassification (from Threatened to Endangered) Priority Number:

Reclassification (from Endangered to Threatened) Priority Number:

Delisting (Removal from list regardless of current classification) Priority Number:

Brief Rationale:

Not applicable

4.0 RECOMMENDATIONS FOR FUTURE ACTIONS

- Continue to survey for additional locations potentially supporting the Tooth Cave pseudoscorpion
- Obtain information for sites within the Balcones Canyonlands Preserve to include surface and subsurface drainage basins, potential development impacts, tract acreage, management, and perpetual protection mechanisms among others. Review information to determine the potential for sites to be recognized as karst fauna areas.
- Work with geologists to compile an accurate and updateable geologic map at the largest scale possible with an eventual goal of 1:24k geologic mapping of karst geology throughout the species' range. This map, in conjunction with the work completed by Veni and Jones (2021), can be used to further refine and update the karst fauna regions and karst zones in the future, as well as allow more accurate range mapping to support the Service's *Information for Planning and Consultation* (IPaC) tool.

5.0 REFERENCES

Veni, G and M. Jones. 2021. Statistical analysis and revision of endangered karst species distribution, Austin area, Texas. National Cave and Karst Research Institute Report of Investigation 10. Carlsbad, New Mexico. 58 pp.

U.S. FISH AND WILDLIFE SERVICE

5-YEAR REVIEW of Tooth Cave Pseudoscorpion (*Tartarocreagris texana*)

Current Classification: Endangered

Recommendation resulting from the 5-Year Review:

No change needed

Appropriate Listing/Reclassification Priority Number, if applicable: Not applicable

FIELD OFFICE APPROVAL:

**Lead Field Supervisor, Fish and Wildlife Service, Austin Ecological Services Field Office,
Austin, Texas**

Approve _____