Hesperapis trochanterata (Melittid Bee)

No Photo Available

Taxonomy

- **Class**: INSECTA
- **Order**: HYMENOPTERA
- **Family**: MELITTIDAE
- **Genus**: Hesperapis
- **Scientific Name**: *Hesperapis trochanterata* Snelling, 1987
- **Common Name**: Melittid Bee
- **Synonyms**:
- **Taxonomic Name Source**:Integrated Taxonomic Information System (ITIS). 2008. World Bee Checklist Project (version 03-Oct-2008). Integrated Taxonomic Information System: Biological Names. Online. Available: http://www.itis.gov.

Agency Status

- **NMDGF**:
- **Federal Status**:
- **BLM Sensitive**:
- **USFS**:
- **IUCN Red List**: Not Evaluated
- **Nature Serve Global**: GNR
- **NHNM State**: S1
- **NM Endemic**:NO

Description

A description of this species could not be found.

Habitat and Ecology

Little habitat and ecology information is known for this species. Based on where it has been recorded, it is likely found in arid shrublands or grasslands in lowland areas of the Madrean Sky Island and Chihuahuan Desert ecoregions. Bees in this genus are often specialists on plants in various families (Carril and Wilson 2023). This species has been documented only on species of fiddleleaf (*Nama* spp.), including *Nama lobbii* and *N. hispidum,* in the Boraginaceae family (Ascher and Pickering 2024). *Hesperapis* species nest in the ground, often in sparse aggregations (Carril and Wilson 2023).

Geographic Range:

This species occurs in the southwestern United States, where it has been recorded at several localities across southeastern Arizona (Chesshire *et al*. 2023) and one locality in central New Mexico, at the Sevilleta National Wildlife Refuge (Wright *et al*. 2023). It is suggested the species is also known from Texas (Ascher and Pickering 2024), though no digitized records are available to confirm this.

Conservation Considerations:

There are no conservation measures in place for this species. It is known to occur in at least one protected are, the Sevilleta National Wildlife Refuge (Wright *et al.* 2023), though this will not protect against the main threat of increased

drought due to climate change. Research is needed to better understand the distribution, population size and trend, habitats and ecology, and threats to this species.

Threats:

The threats to this species are not well understood. Climate warming may have impacts across the range of this species, particularly due to increasing drought conditions. The southwestern U.S. saw its driest 22-year period from 2000 to 2021, since at least 800 CE (the time period used in previous climatic reconstructions) (Williams *et al*. 2022). Droughts are projected to become more prolonged, severe, and common in the region under future climate change scenarios (USGCRP 2018). Drought may negatively impact bee species by reducing floral resource availability (Phillips *et al.* 2017). Bees that are oligolectic, like this one, are generally at higher risk of extinction due to reduced host plant availability, especially under climate change scenarios (Roberts *et al*. 2011) and reduced effective population sizes (Packer *et al*. 2005).

Population:

The population size and trend are not known for this species. In the last 20 years, the species has only been recorded at the Sevilleta National Wildlife Refuge (Wright *et al*. 2023). Even then, only one specimen was found in 2012, despite surveys from 2002 through 2018. There are no recent records from Arizona. While sampling effort is unknown, there are regular bee surveys near Portal, Arizona at least, where this species has been recorded in the past.

References:

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More Information