Phymata saileri (A Assassin Bug)

No Photo Available

Taxonomy

- **Class**: INSECTA
- **Order**: HEMIPTERA
- **Family**: Reduviidae
- **Genus**: Phymata
- **Scientific Name**: Phymata saileri Kormilev, 1957
- **Common Name**: A Assassin Bug
- **Synonyms**:
- **Taxonomic Name Source**:Masonick, P. and Weirauch, C. 2020. Taxonomic revision of the Nearctic erosa species group of Phymata Latreille, 1802 (Heteroptera: Reduviidae: Phymatinae). Canadian Journal of Arthropod Identification 41: 1-90.

Agency Status

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

Description

Approximately 8mm in length and around 3mm in total width. Both males and females have completely dark lateral surfaces of the head and thorax and have dark brown or black forelegs (Masonick and Weirauch 2020). This species is notable for having bristle-like granulation on the thorax and forefemur. Additional diagnostic characters are present in Masonick and Weirauch 2020.

Habitat and Ecology

This rare species is endemic to the Chihuahuan Desert and has been found on blooming members of the acacia clade (Senegalia spp.), and on White Sweetclover (Melilotus albus) (Masonick and Weirauch 2020, iNaturalist 2025). Specimens have been collected at elevations ranging between 1,411–1,579 m above sea level (Masonick and Weirauch 2020).

Geographic Range:

This species has been collected in Arizona at several locations including Oracle (the type locality), the Dragoon Mountains, Portal, near Alto Arizona, and on the New Mexico border just west of Coal Creek Campground (Masonick and Weirauch 2020, iNaturalist 2025). Though the species has yet to be observed in New Mexico, it has been observed less than a mile from the border and will likely eventually be found on the New Mexico side.

Conservation Considerations:

The conservation action most needed for Phymata saileri is more research. There are many research gaps when it

comes to this species and more research is needed on the distribution, ecology, population size and trends, and threats to this species.

Threats:

The threats to this species and to assassin bugs in general in the southwestern United States are not very well defined and more research is needed on the subject. However, some likely threats are broad spectrum insecticide use some of which can cause extreme mortality. In a 2021 study quinalphos was found to cause mortality of 85-100% on all life stages of Sycanus assassin bugs (Sriraksha et al. 2021). Insecticides targeted at assassin bugs are also employed in rural areas in the southwestern United States in an attempt to control Chagas disease which is transmitted by assassin bugs in the subfamily Triatominae (Galvão 2021). However, while these spray programs are widespread in central and south America they are infrequent in the United States and likely not a major threat to this species unless an outbreak occurs in the United States (Dye-Braumuller et al. 2021). Habitat destruction is also a potential threat to this species. This can manifest itself in several ways with one being a simple complete conversion or loss of habitat as areas of the Chihuahuan desert are converted to residential or commercial spaces. Overgrazing in the Chihuahuan desert may also be a threat to the species as it can alter plant and insect communities. Chihuahuan Desert grasslands have been invaded by several notable non-native grass species, especially buffelgrass (Cenchrus ciliaris), fountaingrass (C. setaceus), Lehmann's lovegrass (Eragrostis lehmanniana), and African lovegrass (E. echinochloidea), many of which were planted for use by livestock. Invasion by these grasses has been shown to negatively affect the local invertebrate communities; in one study, for every 100 g/m2 of E. lehmanniana, a 14% decrease in overall insect abundance was observed (Litt and Steidl 2010). This loss in biodiversity and abundance may partly be due to the crowding out of native plants required by these herbivores. Nonnative grasses can compete with native species for resources and reduce establishment success of native seedlings (Morales-Romero and Molina-Freaner 2008, Sommers et al. 2022). Overgrazing may also reduce understory vegetation. A reduction in understory vegetation was shown to cause dramatic declines in assassin bug populations in a 2023 study on palm oil plantations (Stone et al. 2023). The last potential threat is a decline in insect food sources in the region. Many recent studies indicate recent overall declines in global insect declines and studies on better known groups show that the southwestern United States insect communities are declining faster than other regions (Wagner et al. 2021, Gossner et al. 2023, Edwards et al. 2025). Eventually this reduction in prey items could result in declines of this species.

Population:

Nothing is known about the population size or trends of this rarely observed insect.

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