

Sweltsa hondo (Taos Sallfly)

No Photo Available

Taxonomy

- **Class:** INSECTA
- **Order:** Plecoptera
- **Family:** Chloroperlidae
- **Genus:** Sweltsa
- **Scientific Name:** Sweltsa hondo Baumann & Jacobi, 1984
- **Common Name:** Taos Sallfly
- **Synonyms:**
- **Taxonomic Name Source:** Baumann, R.W. & Jacobi, G.Z. (1984) Two new species of stoneflies (Plecoptera) from New Mexico. Proceedings of the Entomological Society of Washington, 86(1), 147–154.

Agency Status

- **NMDGF:**
- **Federal Status:**
- **BLM Sensitive:**
- **USFS:**
- **IUCN Red List:** [Not Evaluated](#)
- **Nature Serve Global:** [G3](#)
- **NHNM State:**
- **NM Endemic:**NO

Description

Habitat and Ecology

The species is known from seven locations in New Mexico and Utah (Baumann and Stark 2021, GBIF.org 2024). The stonefly uses montane streams during the early stages of their lifecycle before emerging (Baumann and Stark 2021) and has been found between elevations of 2,286 and 3,353 m (Baumann and Stark 2021). Little is known about the ecology of the Taos Sallfly, however as a member of the family emerges in late winter after spending spring to fall in diapause. As a whole the family is known to be detritivores as juveniles but will eat plant material as adults (Bugguide.net 2024). The exact emergence date is not known but all occurrences have been in May to August (Baumann and Stark 2021). More research is needed on the ecology of this species.

Geographic Range:

The Taos Sallfly occurs in the southwestern United States in areas of high elevation in New Mexico and Utah, it is found between elevations of 2,286 and 3,353 m (Baumann and Stark 2021). The northern and westernmost part of its range is eastern Utah, east of Moab, Utah. The range continues south to Albuquerque, New Mexico and goes as far east as Wheeler Peak, New Mexico (Baumann and Stark 2021, GBIF.org 2024) The species is known from seven locations; one in Utah and six in New Mexico. In Utah the stonefly occurs along the La Sal Mountains near Dons lake and Lake Oowah. In New Mexico there are four locations within the Sangre De Cristo mountains, the northernmost location is surrounding Wheeler Peak along the South Fork Rio Hondo and near the Middle Fork Lake trailhead. The stonefly also occurs along the Agua Fria Creek west of Holman, New Mexico. The stonefly occurs north of Gallinas, New Mexico along Beaver Creek. The stonefly occurs along the Little Tesuque Creek from the Chamisa trailhead to Ski Santa Fe along the Medio, Rio en. There is another location within Valles Caldera National Preserve, the stonefly occurs along the Redondo Creek west of the Redondo Peak and along the Valle Jaramillo. The southernmost location occurs within the Sandia mountains near Albuquerque, the stonefly occurs along Huertas Creek, west of Palomas

Peak, New Mexico (Baumann and Stark 2021, GBIF.org 2024).

Conservation Considerations:

There are no known range-wide conservation actions in place for this stonefly. The stonefly was given the rank of “Imperiled” in a 2009 NatureServe assessment (NatureServe 2025).

Threats:

This stonefly’s range includes the Southwestern United States, which 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) and droughts are projected to become more prolonged, severe, and common in the region under future climate change scenarios (USGCRP 2018). Drought conditions over the last few years have severely limited food and resources (Hughes 2020) and environmental stochasticity, especially variation in plant quantity, quality, and phenology (Ehrlich and Murphy 1987). Another threat facing this stonefly is catastrophic fire or lack of fire. The impacts of fire on this species may depend on the intensity and size of the fire, as well as seasonal timing (USFWS et al. 2004). With population numbers in small areas one fire, controlled or wild, could wipe out a large percentage of this species (Cary et al. 2004, Wasserman et al. 2023). On the other hand, with no fire this habitat may grow senescent or be succeeded which will also drive the taxa towards potential extinction (Cary et al. 2004, Wasserman et al. 2023). The impacts of land use on fire intensity and spread may also be consequential. For example, grazing may temper a fire, as grazed meadows carry less fuel load, but the presence of some invasive grasses which are more abundant in grazed areas, such as Cheatgrass (*Bromus tectorum*), may cause more frequent fires due to invasive grasses adding novel and continuous fuels (USFWS et al. 2004, Fusco et al. 2019). In the juvenile stages of life the stonefly makes use of streams (Blinn and Ruitter 2006). These Riparian habitats are threatened by drought, riparian corridor severance, damage due to cattle grazing, and hydrological modification for farming, ranching, and industry. In Arizona, for example, from the 1780s to the 1980s, an estimated 36% of wetlands were lost (Dahl 1990), largely due to increased demand for water from agriculture, urbanization, and industry (Fretwell et al. 1996). Many of the major rivers have been dammed, diverted, or otherwise modified and many perennial streams and wetlands have been lost due to groundwater drawdown of aquifers and altered hydrology of drainages (Fretwell et al. 1996). Spending the first stages of their life as an aquatic species leaves them with limited mobility, exposing them to environmental stochastic events such as wildfires and predation. Lastly, stoneflies are partially sensitive to pollution, leading to their use as bioindicators for stream health (McCaffery 2021). Their range occurs on public land (Jacobi and Cary 1996, GBIF.org 2024) leading to pollution from recreation being a possible concern. More research is needed on the threats to this stonefly.

Population:

The population size and trend are not known for this species. Determination of population size and monitoring of population trends is necessary to ensure the population is stable.

References:

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More Information

