

Spilomyia kahli (Yellow-tailed Hornet Fly)



Patrick Alexander, 2007



Christopher Rustay,

Taxonomy

- **Class:** INSECTA
- **Order:** DIPTERA
- **Family:** SYRPHIDAE
- **Genus:** Spilomyia
- **Scientific Name:** *Spilomyia kahli* Snow, 1895
- **Common Name:** Yellow-tailed Hornet Fly
- **Synonyms:**
- **Taxonomic Name Source:** Miranda, G.F.G., A.D. Young, M.M. Locke, S.A. Marshall, J.H. Skevington, and F.C. Thompson. 2013. Key to the genera of nearctic Syrphidae. Canadian Journal of Arthropod Identification No. 23 (August, 2013). Available online: http://cjai.biologicalsurvey.ca/mylmst_23/mylmst_23.html

Agency Status

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

Description

This distinctive fly has a yellow face, black and red thorax, and a black, yellow and red abdomen (Snow 1895).

Habitat and Ecology

Little is known about the habitats and ecology of this species. It is primarily found in montane areas, often at higher elevations, where the habitat is likely arid pine forests. The ecology of *Spilomyia* larvae in North America is unknown (Orengo-Green et al. 2023), but it is inferred from European species that the maggots live in decaying wood (Curran 1951). Adult flies are pollinators, and some species use flowers as courtship and mating sites (Waldbauer and Ghent 1984). This species flies in August and September (Snow 1895, Curran 1951). Though *S. kahli* is harmless, the species mimics Vespidae wasps (e.g. paperwasps), in both appearance and in behavior. The flies stand on four back

legs and move the forelegs as if they are long, wasp antennae (Waldbauer 1970). When in distress, the flies buzz loudly and press down the abdomen as if to sting (Curran 1951). This convincing mimicry shared by several species of *Spilomyia* may be an effective strategy to deter predators (Waldbauer 1970).

Geographic Range:

This species is known from scattered occurrences in montane regions of the southwestern United States and northern Mexico. It has been recorded in the Manzano and Magdalena Mountains of New Mexico (Snow 1895, GBIF.org 2024), the White (Snow 1904, Curran 1951) Huachuca, Santa Rita, and Santa Catalina Mountains of Arizona (Curran 1951, GBIF.org 2024), Guadalupe Mountains National Park in Texas (GBIF.org 2024), and an unknown locality in Mexico (Evenhuis and Pape 2023). There are few recent observations of this species.

Conservation Considerations:

There is no targeted conservation for this species. Research on the current distribution, population size and trend, habitats and ecology, and threats is needed.

Threats:

Threats to this species are not known. Research is needed as the species may be quite rare.

Population:

No data is available of the populations of *S. kahli*.

References:

- [Evenhuis, N.L. and Pape, T.. 2023. Systema Dipterorum. In: O. BÅjnki, Y. Roskov, M. DÅrting, G. Ower, D. R. HernÅndez Robles, C.A. Plata Corredor, T. Stjernegaard Jeppesen, A. Årn, L. Vandepitte, D. Hobern, P. Schalk, R.E. DeWalt, K. Ma, J. Miller, T. Orrell, R. Aalbu, J. Abbott, R. Adla. Natural History Museum of Denmark 2023. <https://doi.org/10.48580/dfs-3bz>](#)
- Curran, C.H.. 1951. Synopsis of the North American species of *Spilomyia* (Syrphidae, Diptera). *American Museum Novitates* 1492: (11-Jan).
- Orengo-Green, J.J., Quinto, J., Ricarte, A. and Marcos-GarcÅa, M.Å. . 2023. Combined stereomicroscope and SEM disentangle the fine morphology of the undescribed larva and puparium of the hoverfly *Milesia crabroniformis* (Fabricius, 1775) (Diptera: Syrphidae). *Micron* 165.
- Snow, F.H.. 1904. Lists of Coleoptera, Lepidoptera, Diptera and Hemiptera collected in Arizona by the entomological expeditions of the University of Kansas in 1902 and 1903. *Kansas University Science Bulletin* 2: (323-350).
- Snow, W.A.. 1895. Diptera of Colorado and New Mexico: Syrphidae. *Kansas University Quarterly* 3: (225-247).
- Waldbauer, G.P.. 1970. Mimicry of Hymenopteran antennae by Syrphidae. *Psyche: A Journal of Entomology* 77: (45-49).
- Waldbauer, G.P. and Ghent, A.W.. 1984. Flower associations and mating behavior or its absence at blossoms by *Spilomyia* spp. (Diptera, Syrphidae). *The Great Lakes Entomologist* 17: (13-16).
- [GBIF.org. 2024. GBIF Occurrence Download. 2024. <https://doi.org/10.15468/dl.8qcfrb>](#)
- [Evenhuis, N.L. and Pape, T.. 2024. Systema Dipterorum. In: O. BÅjnki, Y. Roskov, M. DÅrting, G. Ower, D. R.](#)



[Hernández Robles, C.A. Plata Corredor, T. Stjernegaard Jeppesen, A. Årn, L. Vandepitte, D. Hobern, P. Schalk, R.E. DeWalt, K. Ma, J. Miller, T. Orrell, R. Aalbu, J. Abbott, R. Adla. Natural History Museum of Denmark2024. https://doi.org/10.48580/dfs-3bz](https://doi.org/10.48580/dfs-3bz)

More Information