

Envenomation by *Trachelas tranquillus* (Araneae: Corrinidae) in Connecticut

Author(s): Charles R. Vossbrinck and William L. Krinsky

Source: Journal of Medical Entomology, 51(5):1077-1078.

Published By: Entomological Society of America

URL: <http://www.bioone.org/doi/full/10.1603/ME13215>

BioOne (www.bioone.org) is a nonprofit, online aggregation of core research in the biological, ecological, and environmental sciences. BioOne provides a sustainable online platform for over 170 journals and books published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Web site, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/page/terms_of_use.

Usage of BioOne content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

Envenomation by *Trachelas tranquillus* (Araneae: Corrinidae) in Connecticut

CHARLES R. VOSSBRINCK^{1,2} AND WILLIAM L. KRINSKY³

J. Med. Entomol. 51(5): 1077–1078 (2014); DOI: <http://dx.doi.org/10.1603/ME13215>

ABSTRACT We report a case of envenomation by *Trachelas tranquillus* (Hentz) in Connecticut in late September 2013. The bitten subject, a 50 yr-old-female Caucasian, reported a painful wasp-like sting and brushed the spider from her leg. An erythematous macule formed at the site of the bite. The macule was gone by the next day and there was no associated necrosis. The spider was collected and brought to our laboratory for identification. This is the second confirmed case of envenomation by *T. tranquillus* and the only case reported from Connecticut.

KEY WORDS sac spider, *Trachelas*, envenomation, Connecticut

Documentation of a spider bite by observation of a spider biting, collection of the spider, and reliable identification of the spider is rare. Most medical training in North America provides little information about the kinds of spiders that may bite or the means of identifying them. Consequently, misidentification of spiders by medical personnel is very common (Vetter 2009).

For a spider to bite a human, the spider must have chelicerae (fangs) with musculature strong enough to pierce human skin. For a reaction to occur, the person has to be susceptible to the venom released by the spider. Almost all species of spiders are venomous (secrete a toxin through their chelicerae), but are only defined as toxic if humans have a reaction to their venom.

Trachelas tranquillus (Hentz) is reported here as the cause of a painful bite. The victim of the bite was a female Caucasian ≈50 yr old. The victim, located in Hamden, CT, was bitten on the leg in late September 2013 and described the bite as very painful “like the sting of a wasp.” The bitten area became red and slightly swollen, but by the next day the swelling had subsided. She had brushed the spider from her leg onto the kitchen floor and recovered it from under the baseboard of the cabinets with a broom. The spider then appeared to be dead and was placed in an empty jar. The victim indicated that the spider probably had been brought home in her son’s lunch box.

The spider was identified as a female *T. tranquillus*, referred to commonly but not officially in the literature as the “broad-faced sac spider,” based on its characteristic appearance, color (Fig. 1A), and the mor-

phology of the epigynum (Fig. 1B). A confirmed case of envenomation by this species was reported from Delaware in 1973, based on a 1969 incident in which a 23-yr-old female Caucasian was bitten. The bite became infected and was cleared by two separate injections of penicillin (Uetz 1973).

Discussion

The taxonomy of *Trachelas* and related species has undergone extensive revision (see Ubick et al. 2005). *T. tranquillus* was previously considered a member of the family Clubionidae (Kaston 1981), along with other spiders such as *Cheiracanthium mildei* Koch, an immigrant from Europe (Bryant 1951), and *Cheiracanthium inclusum* (Hentz) implicated in spider bites. At present, the subfamily Corinninae, to which *Trachelas* belonged, has been elevated to family status, and *Cheiracanthium* now belongs to the family Miturgidae. In any case, envenomation by spiders, in general, does not seem to fall along taxonomic lines as spiders considered to be toxic to humans are found in distantly related taxa (Foradori et al. 2005).

Images of spiders and their bites have been placed on the internet. Although not an optimal format for spider identification, one current post shows an image that clearly looks like a *T. tranquillus* and reports a painful bite, but does not include any mention of infection or necrosis (I Dig My Garden; <http://www.idigmygarden.com/forums/showthread.php?t=23000>). Another image shows a *Trachelas* spider and a red spot on an ankle, again with no mention of necrosis (Dave’s Garden; <http://davesgarden.com/guides/bf/showimage/12324/#b>).

In conclusion, *T. tranquillus* has been reported to enter houses in the fall. We report here a confirmed case of a bite by *T. tranquillus* in a home in late September in Connecticut. The spider caused a painful “wasp-like” bite, which lasted for a couple of hours

¹ Center for Vector Biology and Zoonotic Diseases, Department of Environmental Sciences, The Connecticut Agricultural Experiment Station, 123 Huntington Street, New Haven, CT 06510.

² Corresponding author, e-mail: Charles.Vossbrinck@ct.gov.

³ Division of Entomology, Peabody Museum of Natural History, Yale University, New Haven, CT 06520-8118.

A



B

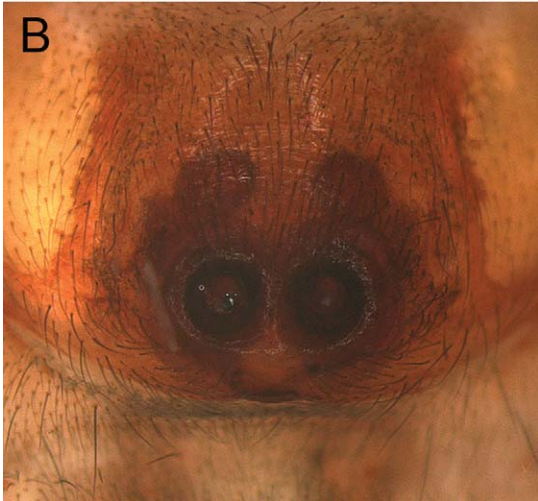


Fig. 1. (A) Shows typical *Trachelas* coloring with a deepening red color toward the front legs. (B) Close-up of the epigynum of *Trachelas tranquillus*.

and was gone by the next day. A previous report of a bee sting-like bite from *T. tranquillus* in Delaware described a painful bite, which lasted for several hours (Uetz 1973). The bite became infected and treatment

with antibiotics was necessary. A report of a stinging bite from a different species of spider, *C. mildei*, in Connecticut, has also been reported (Krinsky 1987). Instances of necrosis resulting from the only two confirmed envenomation species in Connecticut, *T. tranquillus* and *C. mildei* are still not confirmed but may occur in certain instances as individuals respond differently to spider bites. Given that *Cheiracanthium* species and *T. tranquillus* were among the most common spiders found in houses in Boston, MA (Spielman and Levi 1970), and that there are documented cases of painful bites associated with these species, a painful spider bite in Connecticut is likely to be the result of envenomation by *T. tranquillus*, *C. mildei*, or *C. inclusum*. The pain from a spider bite generally subsides within a few hours and the erythema disappears within a day. The bite should be monitored for bacterial infection and signs of necrosis.

Acknowledgment

We thank Michael Thomas for help in preparing the images.

References Cited

- Bryant, E. B. 1951. Redescription of *Cheiracanthium mildei* L. Koch, A recent spider immigrant from Europe. *Psyche* 58: 120–123.
- Foradori, M. J., S. C. Smith, E. Smith, and R. E. Wells. 2005. Survey for potentially necrotizing spider venoms, with special emphasis on *Cheiracanthium mildei*. *Comp. Biochem. Physiol. Part C* 141: 32–39.
- Kaston, B. J. 1981. Spiders of Connecticut, vol. 7. Department of Environmental Protection, State Geological and Natural History Survey of Connecticut, CT.
- Krinsky, W. L. 1987. Envenomation by the sac spider *Cheiracanthium mildei*. *Cutis* 40: 127–129.
- Spielman, A., and H. W. Levi. 1970. Probable envenomation by *Cheiracanthium mildei*; A spider found in houses. *Am. J. Trop. Med. Hyg.* 19: 729–732.
- Ubick, D., P. Paquin, P. E. Cushing, and V. Roth. 2005. Spiders of North America: an identification manual. American Arachnological Society, Keene, NH.
- Uetz, G. W. 1973. Envenomation by the spider *Trachelas tranquillus* (Hentz) (Araneae: Clubionidae). *J. Med. Entomol.* 10: 227.
- Vetter, R. S. 2009. Arachnids misidentified as brown recluse spiders by medical personnel and other authorities in North America. *Toxicon* 54: 545–547.

Received 29 October 2013; accepted 5 June 2014.