

Pest Profile



Photo credit: (Left) Susan Ellis, Bugwood.org; (Right) Hansell F. Cross, Georgia State University, Bugwood.org

Common Name: Chigger (Larva)

Scientific Name: *Eutrombicula alfreddugesi*, *Leptotrombium spp.*

Order and Family: Trombidiformes, Trombiculidae

Size and Appearance:

	Length (mm)	Appearance
Egg		Eggs are spherical. Eggs can vary in color from a pale yellow to a bright orange depending on species. Within about four to seven days, the egg splits, but the larvae remain in the eggshell; this stage is known as the deutovum or pre-larva stage.
Larva	0.15-1.0 mm	The larvae have six legs, unlike the adult or nymph stages. Both legs and body are covered with fine feathered hairs known as sensillae.
Nymph	0.5-1.0 mm	The nymphal stage goes through two inactive stages and one active stage. The first stage after the larva is the protonymph, which is inactive. The protonymph develops within the non-cellular outer layer of the body wall (cuticle) of the engorged larva. After seven to ten days, the protonymph molts into an active eight-legged deutonymph, which is reddish in color and covered with feathered hairs. After several days to two weeks, the deutonymph ceases feeding and goes through a second “pupation”, becoming the inactive tritonymph, which is also called an imagochrysalis. Like the protonymph, the tritonymph completely develops in the cuticle of the deutonymph and emerges as an adult.
Adult	1-2 mm	The eight-legged adults are small and usually reddish. They are covered dorsally and ventrally with numerous feathered hairs that give the adult a velvety appearance.

Type of feeder (Chewing, sucking, etc.): Trombiculidae have a pair of strong chelicerae that would be considered piercing-sucking mouthparts. The larva pierces the host skin and inject saliva. The saliva of the larva dissolves the skin tissue and in defense the surrounding skin hardens. This creates a tunnel known as a stylostome or histiosiphon, which helps the larva suck up digested tissues.

Host/s: The adults and the deutonymph are not parasitic and feed on the tissue fluids of numerous small soil-inhabiting arthropods and their eggs. The larval stage is parasitic and feed on the partially digested skin cells of humans, birds, amphibians, reptiles, and mammals (especially rodents). The larva does not burrow into skin or feed on blood. The protonymph and tritonymph stages are inactive and do not feed.

Description of Damage (larvae and adults): The larval feeding can cause chigger dermatitis that can leave intense itching and irritation on the skin. If the mouthparts are still attached when the chiggers are removed, irritation can increase in intensity. The larval mites commonly attack the legs. In the United States, these mites do not transmit any diseases (*Eutrombicula alfreddugesi*). In the Asian-Pacific area, there are over 40 mite species in 13 genera that are known to be vectors or suspected of being vectors of scrub typhus (*Oriental tsutsugamushi*). Of these species, *Leptotrombium* spp. are important vectors of this disease. The adults or nymph stages are not of any medical importance.

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