

Pest Profile



Photo credit: (Left & Right) Sturgis McKeever, Georgia Southern University, Bugwood.org

Common Name: Deer Fly

Scientific Name: *Chrysops spp.*

Order and Family: Diptera, Tabanidae

Size and Appearance:

	Length (mm)	Appearance
Egg	1-3 mm	The eggs are whitish in color when first laid but soon darken to a grayish or blackish. The eggs are curved, or cigar shaped.
Larva	6-10 mm	The larva can be creamy white, brown, or greenish in color but can often have a darkish pigmentation near the border of each segment. They are cylindrical and somewhat pointed at both ends and have a very small black head that they can retract into the thorax (fusiform). The mouthparts consist of strong parallel mandible.
Adult	6-10 mm	The adult is a medium-sized fly, with most species having iridescent eyes that are commonly spotted by colors of red, green, or purple. The adult's wings are partially held over the abdomen in an open scissor-like manner. The wings usually have one or more brownish transverse bands. Many species have a blackish abdomen with orange or yellow patches or bands. The second segment of the antennae is long and cylindrical and does not have any projections, with the third segment having four small subdivisions. The adults can be sexed by looking at the eyes. Females have a distinct space on top of the head that separates the eyes (dichoptic); whereas in males, eyes are large and either touch each other or are very narrowly separated (holoptic).
Pupa (if applicable)	6-10 mm	The pupa is tan or brown in color. The eyes, legs, and wing pads are visible.

Type of feeder (Chewing, sucking, etc.): Adult females have lacerating-sponging mouthparts (pool-feeders). Adult males have sponging mouthparts. Larvae have chewing mouthparts.

Host/s: Both adult male and female deer flies feed on naturally occurring sugary secretions; however, the female also feeds on the blood of a wide variety of mammals, including humans, deer, monkeys, and other herbivores and carnivores. This list includes domesticated animals such as horses and cattle. The larvae are mainly scavengers that feed on decaying plant or animal matter.

Description of Damage (larvae and adults): The adult female can deliver a painful bite that can cause allergies such as swelling, and in a rare instances, hives and wheezing. Female deer flies can be responsible for spreading mechanical vectors like anthrax (*Bacillus anthracis*). Deer flies have also been incriminated with the spread of tularaemia (*Francisella tularensis*) in North American and Russia. It has been suspected that they can mechanically transmit Lyme disease (*Borrelia burgdorferi*). One of the more important and cyclically transmitted diseases that female deer flies spread to humans is loiasis, which is caused by the nematode *Loa loa*. This disease is mainly located in the equatorial rainforest of Ghana, Nigeria, Cameroon, Equatorial Guinea, Gabon, the Republic of Congo, the Democratic Republic of the Congo, northern Angola, southern Sudan, and western parts of Uganda.

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