



# **Crane Flies**

## Appearance / Identification



#### What Do Crane Flies Look Like?

Crane flies are known as true flies and share a resemblance with mosquitoes. The body is long and thin measuring between 15 mm to 25 mm. It is grey to brown in colour, with thin, smoky wings and extremely long legs. Much like other species of true flies, crane flies possess two tiny stemmed protrusions on the thorax called halteres which are used for balance. The last segment of the abdomen in the females is modified into a harmless ovipositor that looks like a stinger used to deposit eggs. Crane flies have no piercing proboscis like mosquitos. I.e they cannot suck your blood!

## Habitat

Crane flies are typically associated with moist vegetative habitats. Crane fly larvae can be found in moist soil feeding on decomposing vegetation and various plant roots. Some species may be found in streams feeding on small aquatic insects, invertebrates, and any decaying plant life found near the surface. They survive best in mild winters and cool summers, with adults emerging in late spring from lawns and pastures.

#### Life Cycle

Like other true flies, the crane fly undergoes complete metamorphosis with four distinct stages, eggs, larva, pupa and adult. A female crane fly lays up to 300 eggs in the ground. The eggs hatch within two weeks of being deposited. The hatched larvae feed on decaying wood, vegetation, and turf, and may cause damage to plant roots in large concentrations. Typically, the crane fly larvae goes through four instars and overwinters under the ground before pupating in mid-to-late spring, just below the soil surface. When the adult crane flies emerge, they leave behind pupal cases (puparia) which appear to be small, grey sticks. Crane flies adults live for several days, typically just long enough to mate and reproduce.

#### Larvae

Crane fly larvae are sometimes called "leatherjackets" for the tough skin these insects exhibit during their third and fourth instars. Crane fly larvae feed on the roots of the grasses. Light grey to greenish-brown in colour, the larvae also exhibit irregular black specks on the body. They are cylindrical in shape and taper slightly at both ends. The larvae do not have legs and appear similar to worms. Crane fly larvae range in size from 5 mm in the first instar up to 4 cm in the final instar before pupation.



## What Do Crane Flies Eat?

Adult crane flies do not feed. The larvae are the only feeding forms. They feed on roots of grasses and decaying organic matter. The food sources for the larvae remain abundant due to the regions the insects inhabit.



## Problems Caused by Crane Flies

The turf on home lawns, pastures, and golf courses may show signs of significant damage from crane fly larvae. Issues may include yellowing of the grass to thinning or bare patches throughout the yard. Additionally, secondary damage may occur when predators such as birds, crows may try to dig up the ground in order to feed on the developing larvae. As adult crane flies don't bite or sting and live extremely short lives, homeowners should focus on eliminating the insects at the larval stage. Registered insecticides may prove effective if used correctly. The optimal treatment time is the late fall season, when egg laying occurs and larvae are more active at the lawn surface. In extreme cases of crane fly infestation, contacting a professional pest control specialist may be necessary.

## Do Crane Flies Bite?

As adult crane flies don't bite or sting and live extremely short lives, homeowners should focus on eliminating the insects at the larval stage. Several things can be done to prevent crane fly infestations; maintaining a healthy and vibrant turf or lawn will make it less susceptible to the flies. Because crane flies lay eggs in wet soil and the eggs are vulnerable to desiccation, improving drainage to allow proper soil drying and aeration will prevent egg laying. If the eggs are already laid, they will still dry out. There are several registered products available in Australia that can applied as preventive treatment, but always remember to read and follow label instructions of the product. Insect-eating nematodes such as *Steinernema* species are also registered and available for use as biological control; they feed on the larvae. For severe infestations, consult a professional pest management specialist in lawn or turf management such as Globe Australia 03 9335 1330.

### Treatment

Whilst no treatment is recommended if plague numbers occur then, Exopest may be able to apply a residual to areas where they may congregate, but please remember they may only survive 2-3 days in any case.

