FLEAS

Physical Identification

Adult fleas are small insects usually measuring 1.0 to 8 millimetres. The bodies of fleas are flat from side to side, allowing them to move easily between the fur and feathers of their mammal or bird hosts. Their tubelike mouthparts are used to pierce skin and suck blood.

Feeding

The female flea consumes 15 times her own body weight in blood daily. While adult fleas all suck blood from a cat or dog or other mammal, their larvae live and feed on organic debris in the host animal's environment.

Lifecycle

The entire cycle, from egg to adult flea, is complete in 12 – 22 days when temperature and humidity conditions are ideal, but more commonly takes 3 – 4 weeks. Surprisingly, only approximately 5% of a flea infestation is made up of adult fleas on your pet, whereas 95% is in your home as eggs, larvae and pupae.

There are four stages in the life cycle of a flea: egg, larva, pupa, and adult. Depending on the environmental temperature and humidity levels, the total life cycle will take anywhere from a couple weeks to many months. Optimal conditions for fleas are between 70-85°F and 70 percent humidity.

Flea Eggs
The beginning of the life cycle occurs when an adult female flea lays eggs following a blood meal from the host (e.g., your pet). Blood is necessary for the adult flea to reproduce. These eggs are small, white objects (slightly smaller than a grain of sand) that are laid in the pet's fur in bunches of about 20. A single adult female can lay about 40 eggs every day.
The eggs will fall off your pet as s/he moves, allowing them to be disbursed throughout the environment where your pet spends his or her time. Eggs represent about one-half (50 percent) of the entire flea population present in an average home.

Eggs take anywhere from two days to two weeks to develop, hatching when environmental conditions are just right for them. If temperatures are cold and dry, the eggs will take longer; if temperatures are warm and humidity levels are high, the eggs will hatch at a faster rate. Larvae then emerges as the next life stage.

Flea Larvae

The emerging larvae are blind and will avoid being out in the light. They develop over several weeks by eating pre-digested blood (known as flea "dirt") that adult fleas pass, along with other organic debris in the environment.

In appearance, flea larvae can be up to 3mm and are white (almost see-through) and legless. Larvae make up about 35 percent of the flea population in the average household. If conditions are favourable, the larvae will spin cocoons in about 5-20 days of hatching from their eggs. This leads to the next life stage, called the cocoon or pupae stage.

Flea Pupae

The pupae stage of the flea life cycle accounts for about 10 percent of the flea population in a home. This cocoon stage is the last developmental stage before the adult flea emerges. The cocoon protects the pupae for several days or weeks before the adult flea emerges. If environmental conditions are not right for emergence, the cocoon can protect the developing flea for months, and in some cases, years.

Cocoons have a sticky outer coating that allows them to hide deep in the carpeting and not be easily removed by light vacuuming or sweeping. The cocoon also serves to protect the developing adults from chemicals.

The adult flea will not emerge until the presence of a potential host is made obvious - by vibrations, rising levels of carbon dioxide, and body heat. This may be triggered by your pet walking by, or people moving in the house, alerting the flea to emerge from its cocoon to feed.

Adult Fleas

Once a flea has emerged from the cocoon, it will need to begin feeding from a host within a few hours. Shortly after the first meal, adult fleas will breed and begin laying eggs within a few days. Female fleas are not able to lay eggs until they obtain a blood meal.

New adult fleas have a flat bodied appearance and are very small and dark in colour. Once they have had a chance to feed off your pet, they will become larger and lighter in colour, taking on the more recognizable flea shape. Adult fleas account for less than 5 percent of the entire flea population in a home. They spend the majority of their time living on the host while they feed, breed, and lay eggs, and can live anywhere from a couple of weeks to several months on the host animal.

Harbourage

Fleas can be found throughout the world. As part of the flea life cycle includes laying eggs on a warm-blooded animal, they commonly live in areas densely populated by potential hosts. The presence of high humidity and temperatures assists the development of larvae. The pests are sometimes forced inside homes due to prolonged periods of excessively wet weather. Fleas can gain entry into homes by attaching themselves to common household pets. Once inside, the parasites tend to gravitate toward places frequented by potential host animals. Pet beds, as well as cracks and crevices, make popular harbourage sites for fleas.

Health Risk

While too much itching and scratching can lead to infection, flea bites are also associated with other dangers. The dangers from flea bites are due to the disease carrying nature of fleas. The "black plague" is actually caused by a type of bacteria called Yersinia pestis spread by fleas, and killed 25 million people.