



Cat Flea, *Ctenocephalides felis*¹

N. C. Hinkle, P. G. Koehler and F. M. Oi²

The cat flea is the most common ectoparasite of both dogs and cats in the United States and has been found on over a dozen other animals. While it does serve as the intermediate host of some tapeworms, its main effect is the itching and irritation produced by its bite (along with flea allergy dermatitis in susceptible animals).

Biology And Behavior

Cat fleas have four stages in their development -- egg (Figure 1), larva (Figure 2), pupa and adult (Figure 3). The eggs, which are smaller than the period at the end of this sentence, are laid as the female feeds on the host and sift through the animal's coat to collect in the environment. The legless larvae which hatch from the eggs feed on excrement produced by the adult fleas and reach a length of about one-eighth inch. Outdoors these larvae develop in shaded soil and indoors they develop best in carpet. While under good conditions the larval stage takes only about a week, cool temperatures and low humidities can extend larval development for several weeks. The larvae spin cocoons of silk in which they incorporate debris from their environment (soil outdoors, soil and carpet fibers indoors) for pupation.

The pupa develops and metamorphoses into an adult flea within this cocoon. This stage is the most variable in length as the pharate (pre-emerged) adult remains within the cocoon, sometimes for months, until signaled to emerge by such stimuli as pressure or carbon dioxide.

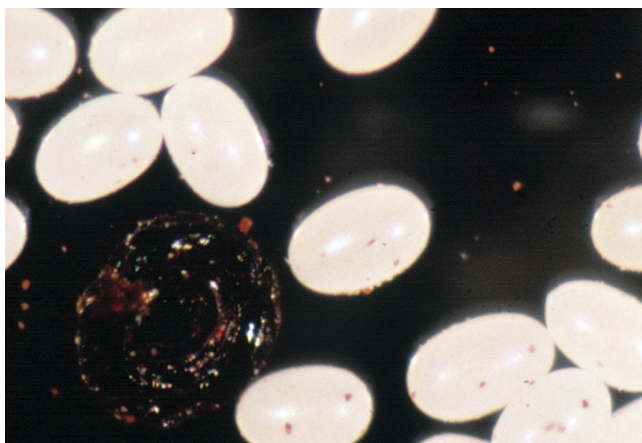


Figure 1. Cat flea eggs. Credits: N. Hinkle, University of Florida

Appearance

Cat fleas are laterally-flattened, wingless insects approximately one-eighth inch long when engorged

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2. N. C. Hinkle, Department of Entomology, University of Georgia, Athens, GA (formerly University of Florida student), P. G. Koehler, professor/extension entomologist, and F. M. Oi, assistant extension entomologist, Entomology and Nematology Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.

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Figure 2. Cat flea larva. Credits: J. F. Butler, University of Florida



Figure 3. Cat flea adult. Credits: N. Hinkle, University of Florida

(double their unfed size). Under magnification they can be seen to have both genal and pronotal combs (ctenidia), differentiating them from most other fleas of domestic animals.

Control

Combing the animal with a flea comb will remove many of the fleas, so long as the animal tolerates combing. The safest products to use on the animal are botanicals or silica gel. Flea collars have been found ineffective in controlling fleas on the animal. While treatment with a dust, shampoo, or dip can rid the animal of fleas, it is likely to be repopulated once it is put back into an infested area. Products for spot treatment of pets are available from veterinarians.

It is essential to treat the home, the yard and the animal simultaneously. Insect growth regulators (methoprene, hydroxyflorfen, and pyriproxyfen) are suggested for their ability to interrupt the flea life cycle and are particularly recommended because of

their safety to humans and pets. Several other products are registered for use against adult fleas and may be combined with one of the growth regulators to provide rapid knock-down of the adults present along with residual effectiveness against the immature stages.

Indoor treatments can be applied as surface treatments (Table 1) or space treatments (Table 2). These applications should be made to all areas where pets have access, concentrating on places where they spend the most time. Be sure to remove and protect children's toys and other items to prevent contamination with spray.

Outdoor treatments can be applied as barrier (Table 3) or broadcast application (Table 4). Be sure to read and follow label directions.

Table 1. Cat flea management products labeled for indoor surface treatment.*

Common Name	Homeowner Products*	Commercial Products*
Beta-Cyfluthrin		
Bifenthrin	Ortho Home Defense Perimeter & Indoor Insect Killer	
Deltamethrin		Suspend SC Insecticide
Methoprene		Precor Precor 2000 Premise Spray II
Permethrin		Dragnet SFR Termiticide/Insecticide
Pyrethrins		Kicker PT Tri-Die Silica & Pyrethrum Dust
Pyrethrins and Others		PT 565 Plus XLO PT Microcare CS Controlled Release Pyrethrum PT Microcare Pressurized Pyrethrum Capsule Suspension PT Tri-Die Pressurized Silica & Pyrethrin Dust
Pyrethrins, MGK-264, Permethrin	Ortho Ant-B-Gon	
Pyrethrins, PBO		PT P.I. Contact Insecticide Pyrenone 50 Pyrenone 100 Synerol Insecticide
Tetramethrin, Phenothrin	Ortho Flying Insect Killer 1	
Tralomethrin		Saga WP Insecticide
* Read label carefully to insure pest, site, and commodity are listed prior to applying product. Some product labels are very restrictive.		

Table 2. Cat flea management products labeled for indoor space treatment.*

Common Name	Homeowner Products*	Commercial Products*
Hydroprene		TurboCide Gold with Gentrol
Pyrethrins		PT ULD BP-300
Pyrethrins and Others		PT Pro-Control PT Pro-Control Plus PT ULD BP-100
Pyrethrins, PBO		Pyrenone 100 Synerol Insecticide
Pyrethrins, Permethrin	Ortho Indoor Insect Fogger	
* Read label carefully to insure pest, site, and commodity are listed prior to applying product. Some product labels are very restrictive.		

Table 3. Flea management products labeled for outdoor barrier treatment.*

Common Name	Homeowner Trade Name*	Commercial Trade Name*
Beta-Cyfluthrin	Bayer Power Force Carpenter Ant & Termite Killer Plus	
Bifenthrin	Ortho Termite & Carpenter Ant Killer	Talstar CA Granular Insecticide Talstar F Insecticide/Miticide Talstar GC Granular Insecticide Talstar PL Granular Insecticide Talstar Termiticide/Insecticide
Carbaryl	Ortho Bug-B-Gon Multipurpose Insect Killer Ready-to-Use Granules	
Cyfluthrin	Bayer Advanced Home, Home Pest Control Indoor Insect Killer Bayer Advanced Lawn & Garden Multi-Insect Killer Bayer Power Force Ant Killer Ready-to-Use Granules	PT Cy-Kick CS Controlled Release Cyfluthrin Tempo 20 WP Tempo SC Ultra
Cypermethrin		Cynoff EC Cynoff Power Spray Insecticide Cynoff WP Cynoff WSB Prevail FT Termiticide
Deltamethrin		DeltaDust Suspend SC Insecticide
Permethrin	Ortho Bug-B-Gon Multipurpose Insect Killer Ready-to-Spray	Dragnet SFR Termiticide/Insecticide
Pyrethrins		Kicker
Tau-Fluvalinate		Yardex Supplemental Labeling
* Read label carefully to insure pest, site, and commodity are listed prior to applying product. Some product labels are very restrictive.		

Table 4. Flea management products labeled for outdoor broadcast treatment.*

Common Name	Homeowner Trade Name*	Commercial Trade Name*
Beta-Cyfluthrin	Bayer Power Force Carpenter Ant & Termite Killer Plus	
Bifenthrin		Talstar CA Granular Insecticide Talstar F Insecticide/Miticide Talstar GC Granular Insecticide Talstar Termiticide/Insecticide
Cyfluthrin	Bayer Advanced Home, Home Pest Control Indoor & Outdoor Insect Killer Bayer Advanced Lawn & Garden Multi-Insect Killer Bayer Power Force Ant Killer Ready-to-Use Granules Bayer Power Force Carpenter Ant & Termite Killer Plus Bayer Power Force Multi-Insect Killer Ready-to-Spread Granules	Tempo 20 WP Tempo SC Ultra

Table 4. Flea management products labeled for outdoor broadcast treatment.*

Common Name	Homeowner Trade Name*	Commercial Trade Name*
Deltamethrin		Suspend SC Insecticide
Esfenvalerate	Ortho Bug-B-Gon Multipurpose Insect Killer	
Permethrin		Astro Insecticide Dagnet SFR Termiticide/Insecticide
Pyrethrins		Kicker
Pyrethrins and Others		PT Microcare CS Controlled Release Pyrethrum
Pyrethrins, PBO, Silica Gel		Drione
Tralomethrin		Saga WP Insecticide
<p>* Read label carefully to insure pest, site, and commodity are listed prior to applying product. Some product labels are very restrictive.</p>		