



**Occasional Invaders
and
Miscellaneous Pests**



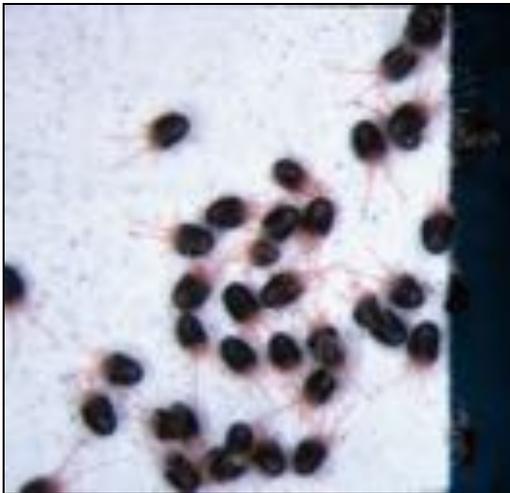
What is an Occasional Invader?

- A pest that often occurs in buildings at some stage in its life, but that does not usually complete its entire life cycle inside the building.
- Most live outside and come indoors only on occasion.
- Although occasional invaders may enter the structure in large numbers, they usually do little damage and are considered a nuisance pest simply because of their presence.

Some Occasional Invaders Are:

- Clover mites
- Centipedes
- Millipedes
- Pillbugs and Sowbugs
- Slugs and Snails
- Crickets (House & Field)
- Earwigs
- Boxelder Bugs
- Ground Beetles
- Lady Bugs (Ladybird beetles)

Clover Mites



Clover Mites

- Are arachnids (not insects) & don't bite people or pets or do damage to structures.
- Are red, smaller than the size of a pinhead.
- Have 4 pairs of legs. The front pair are pink in color, are much longer than the other three pair, and extend forward.
- Feed on the juices of plants such as clover and grasses



Clover Mites

- Migration into homes is often triggered by the overpopulation or by the onset of unfavorable feeding conditions, which may occur during periods of drought or by the onset of cold weather.



Clover Mites

- Adult Clover mites lay eggs in cracks inside foundations, inside exterior walls of structures, and on the underside of the bark at the base of trees...where they overwinter.
- They are inactive in cold weather as well as very hot weather.
- During brief periods of warm weather in late winter or early spring, they migrate both to the outside and inside walls of the house.



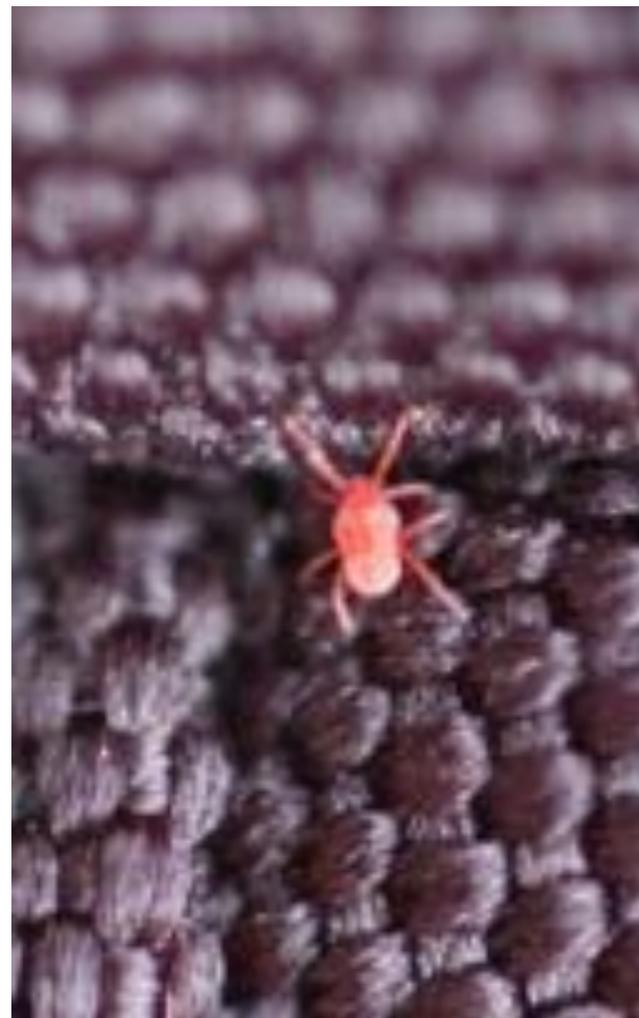
Clover Mites

- They often enter homes in large numbers when they migrate to the south & west walls of structures due to the warming effect of bright sunshine on the building.
- Clover mites often have heavy migrations into houses in early summer and fall.



Clover Mites

- They often enter homes in large numbers through cracks and around windows and doors.
- They are soft-bodied and are easily crushed.
- It is extremely annoying to homeowners who try to brush them off light-colored drapery or walls, resulting in red stains.



Centipedes



They are beneficial, feeding on insects & spiders

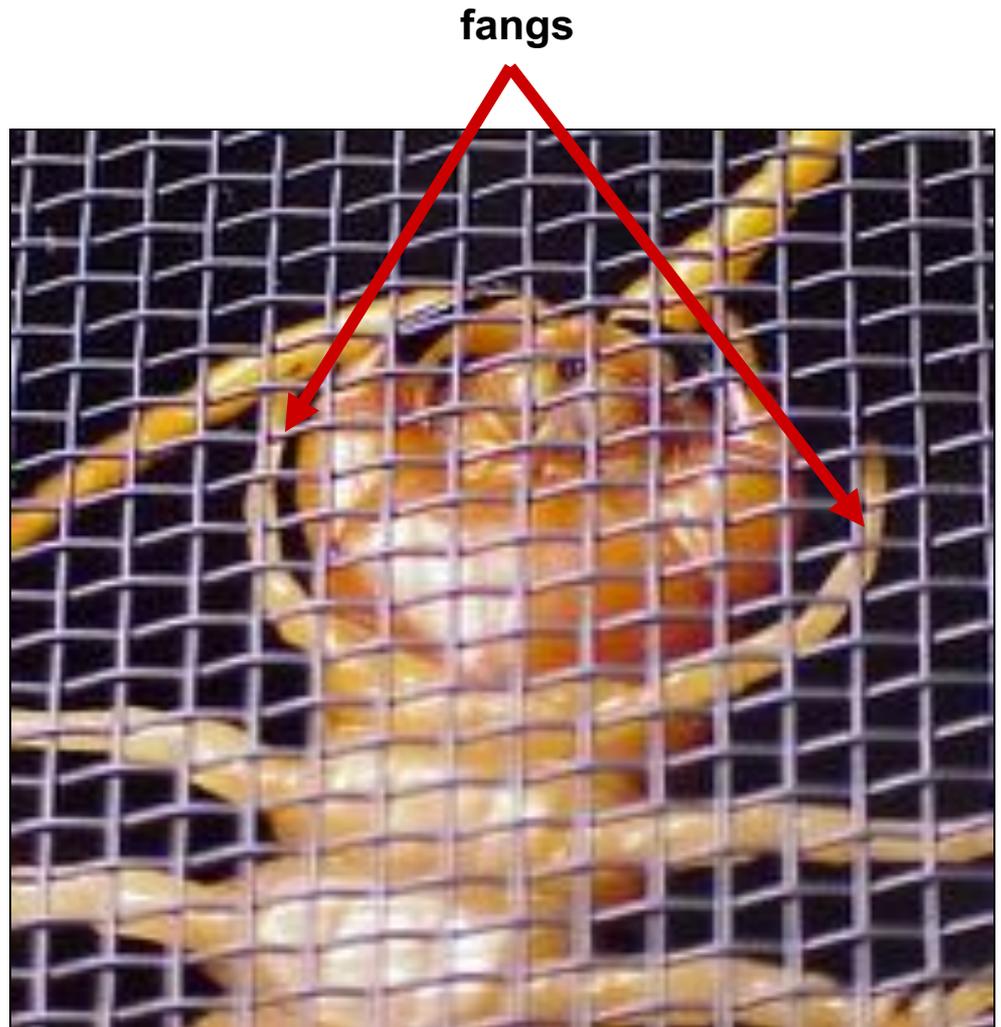
Centipedes

- Belong to the Class Chilopoda
- They have many segments, each with one pair of legs
- Their body is flattened and they have long antennae



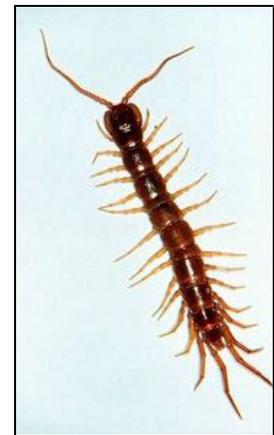
Centipedes

- They are predators and feed on insects and spiders at night (nocturnal).
- Their front legs have fangs and their bite injects venom that can cause pain and swelling

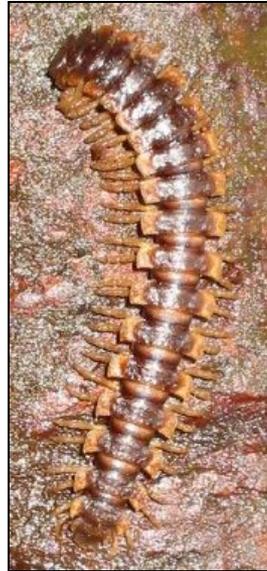


Centipedes

- Centipedes live outdoors in damp areas such as under leaves, stones, boards, or tree bark or in mulch around outdoor plantings.
- They may be found in moist voids such as under attached slabs and in the voids of exterior walls (ie. - weep holes)



Millipedes



Millipedes

- They belong to the Class Diplopoda.
- They have many segments, each of which has two pairs of legs.
- Their body is cylindrical and they have short antennae.
- They feed on decaying organic matter.
- In dry weather, they migrate out of piles of leaf litter and may enter homes in large numbers.



Pillbugs & Sowbugs



Pillbugs & Sowbugs

- They belong to the Class Crustacea
- They are the only land forms of Crustaceans
- Water forms of Crustaceans are lobster, shrimp, crab, crawfish, etc.
- They have at least five (5) pair of legs
- Pillbugs do not have any appendages at the end of their abdomen and can roll into a tight ball
- Sowbugs have two (2) pair of appendages at the end of their abdomen, but cannot roll into a tight ball

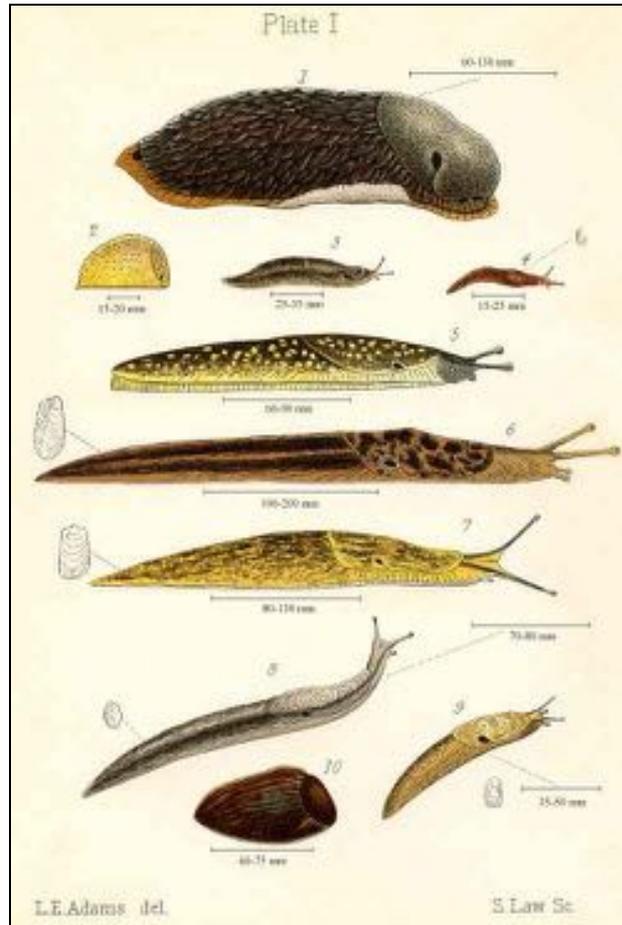


Pillbugs & Sowbugs

- Pillbugs & sowbugs feed on decaying vegetable matter
- They live outside under mulch, vegetable debris, and under other objects that are on damp ground (firewood piles, trash cans, and potted plants & planters)
- They may invade damp basements and crawlspaces, and may infest potted plants
- A heavy infestation inside generally indicates that there is a large population living immediately outside the building

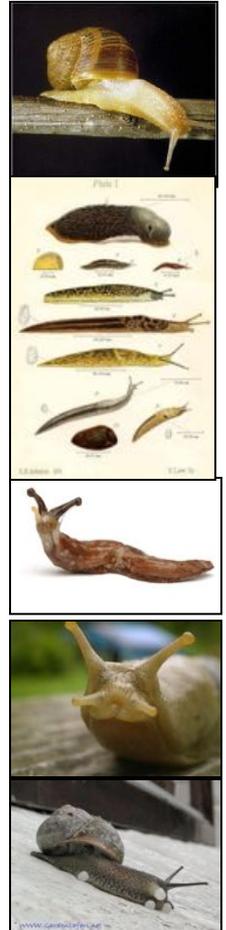


Slugs & Snails



Slugs & Snails

- They belong to the Phylum Mollusca (Class Gastropoda) that is related to oysters
- Slugs are soft-bodied, slimy creatures without a shell. Snails are soft-bodied, slimy creatures with a shell
- They require a large amount of moisture
- They are nocturnal
- They are plant feeders, but often deface buildings with their fecal material
- They leave glistening mucous trails as they walk at night



Slugs & Snails

- They are often found under boards and in firewood piles on the ground and in wet areas (under shrubbery, in landscape areas, and in crawlspaces)



Crickets (House & Field)



Crickets (House & Field)

- Are insects related to cockroaches
- They feed on both plant and animal material
- Can be a considerable annoyance inside and can cause damage to some fabrics such as linens, furs, silk, woolens, and rayon
- Field crickets are often attracted to lights at night



Crickets (House & Field)

- Crickets are found outdoors almost anywhere around a building...in flower beds, under garbage cans, in mulch surrounding shrubbery that is adjacent to the exterior foundation walls of the building, in firewood piles, in ground cover, etc.



Cave/Camel Crickets



Cave/Camel Crickets

- They often are found on wood and on the exterior foundation walls within 3' to 5' of the junction of the exterior foundation wall and the flooring inside moist crawl spaces.



- Infestations of cave/camel crickets are often obvious because of fecal stains that they leave on surfaces on which they rest.

Cave/Camel Crickets

- They become pest problems when they enter homes around openings surrounding pipes entering the house from the crawl space or from outside the house.
- They may be found outside in firewood piles that are resting on the ground and are placed next to the house.



Cave/Camel Crickets

- Cave/camel crickets can hop quite well and readily become a nuisance pest once inside the house. However, they can be more than a nuisance.
- They can chew and stain fabrics...although they are not considered a fabric pest, as they do not digest keratin.



Earwigs



Earwigs

- Earwigs belong to the Order Dermaptera
- They have two pair of wings, the front pair are shortened and the rear pair are membranous and folded under the 1st pair
- They have a pair of forceps-like appendages at the rear of their abdomen
- They are scavengers on dead animal and plant material, or are predators



Earwigs

- Earwigs are nocturnal
(active at night)
- Some are attracted to lights
- Some can fly
- They are found outside under rocks, stones, boards, and debris.
- They are found under garbage cans and in and under firewood piles on the ground



Earwigs

- Earwigs often build-up in large numbers in voids under slabs that are adjacent to buildings.



Boxelder Bugs



Boxelder Bugs

- Belong to the insect Order Hemiptera
- Related to Bed bugs and chinch bugs
- Are plant-feeders, primarily sucking the juices of boxelder trees and maple trees
- They have piercing-sucking mouthparts, that can puncture the skin, but generally do not bite man
- They can stain curtains and other fabrics with their fecal spots and can produce a foul odor.



Boxelder Bugs



Boxelder Bugs

- They build up to large populations and are found crawling on the south and the west walls of buildings in the fall, where they often enter the building through cracks & crevices and overwinter in the voids of walls, between floors, and in the attic.
- They emerge in the spring to seek out new host trees on which to feed and lay eggs
- They are primarily a nuisance pest in homes



Boxelder tree



Boxelder Bugs



**They accumulate in large numbers outside homes
and in the walls and attics of homes**

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Ground Beetles



Ground Beetles

- Ground beetles are one of the largest families of beetles
- Beetles have 2 pairs of wings, the front pair of wings are hardened and meet in a line down the middle of its abdomen. The rear wings are membranous and fold underneath the front pair
- Beetles are predators and live on the ground under leaves, stones, logs, firewood, and other debris



Ground Beetles

- Ground beetles are mostly active at night when they feed on other insects and arthropods
- Only a few species of ground beetles are attracted to lights or fly
- Most ground beetles are dark in color, although some are brightly colored
- Inside a home, they become primarily a nuisance pest



The Asian multi-colored lady beetle is the most common lady beetle that overwinters inside buildings



Adult Lady Bugs/Beetles are predators



Farmers release them in their fields to kill the bad bugs attacking their crops.

Lady Beetle larvae are predators



They're the good guys!

They eat soft-bodied insects such as aphids, mealybugs, and scale insects.

...but Lady beetles may also be:

- a nuisance when they overwinter in the voids of homes



Lady Beetles

- Lady beetles are predators of many plant-feeding pests such as aphids, mealybugs, scale insects and many other insects that attack trees, shrubs, flowers, or vegetables in the garden.
- They build up in large numbers in the summer and enter the south and west sides of homes where they overwinter in wall voids and attics.
- In spring, lady beetles emerge from those voids and become nuisance pests in homes.

What is a Miscellaneous Pest?

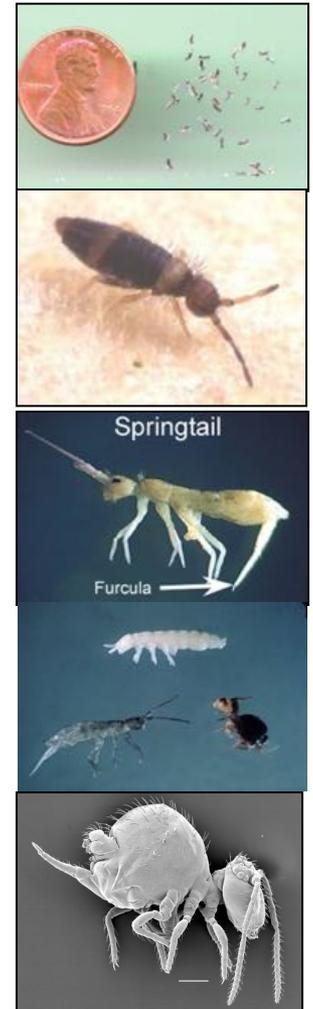
- A pest that occasionally enters structures, but is able to complete its life cycle inside the structure and maintain a continuous infestation inside the structure is referred to as a miscellaneous pest.
- Some miscellaneous pests are:
 - springtails
 - silverfish/bristletails
 - scorpions
 - cave/camel crickets
 - House centipedes
 - spiders

Springtails



Springtails

- These primitive insects are wingless
- They have a forked appendage, called a furcula, that is attached to the underside of the abdomen and extends underneath the thorax. When released, the furcula moves suddenly away from the body against the ground and it makes the insect jump...giving this insect its name.
- They are very small, generally less than 1/12th of an inch in length



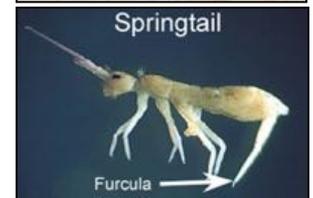
Springtails

- Springtails feed on algae, fungi and decaying organic material.
- They develop outside in large numbers in mulched areas in the thatch of surrounding lawns.
- Indoors, springtails are often found in damp places such as in bathrooms and kitchens, around drains, in potted plants and around the baseboards of exterior walls and around window moldings.

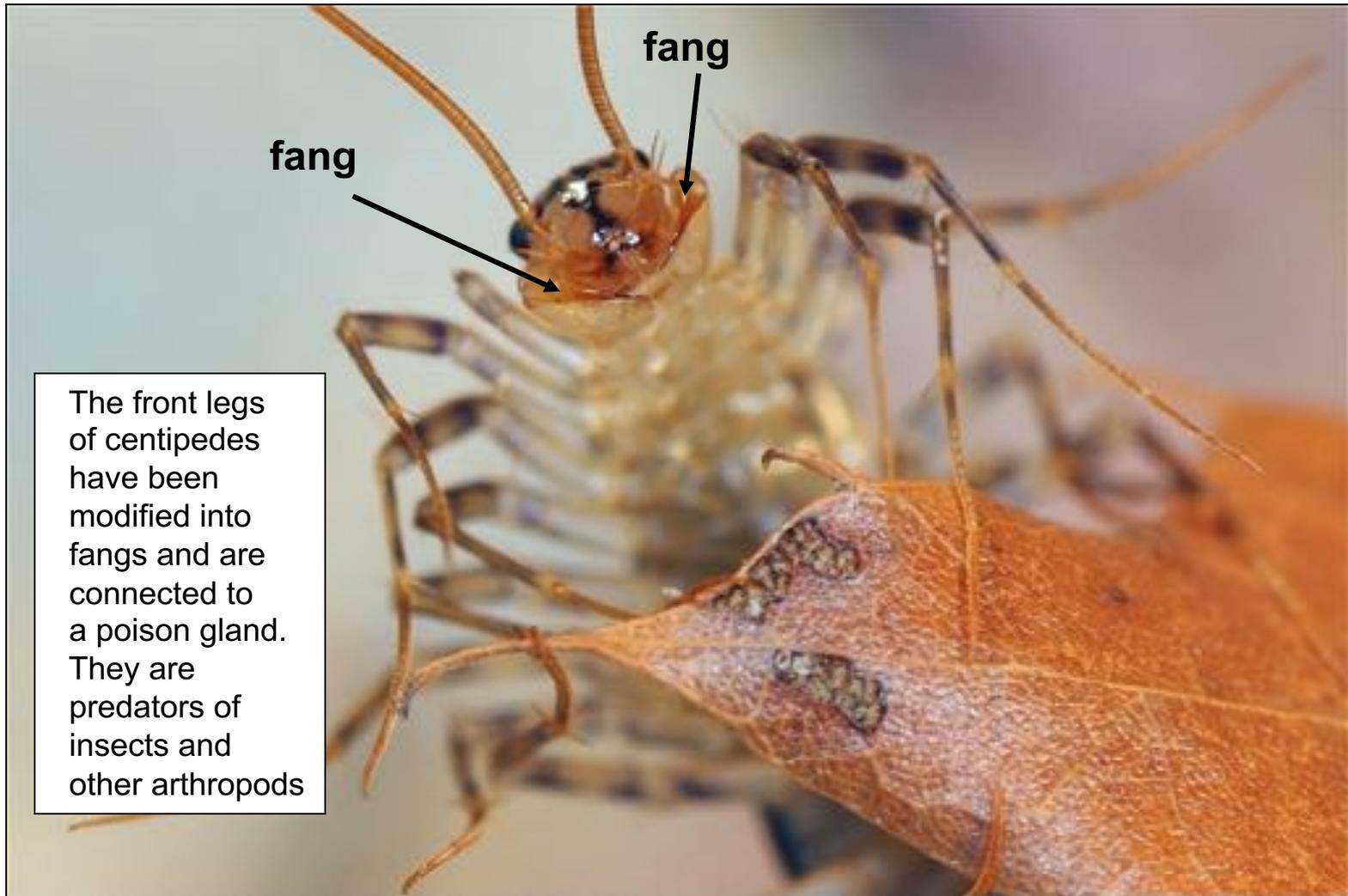


Springtails

- Springtails do no damage to structures.
- Homeowners sometimes think that springtails are fleas because they jump like fleas.
- Homeowners generally consider them as nuisance pests because they enter homes in large numbers inside.
- Extremes in weather often stimulate large numbers of springtails to move indoors.



House Centipedes



The front legs of centipedes have been modified into fangs and are connected to a poison gland. They are predators of insects and other arthropods

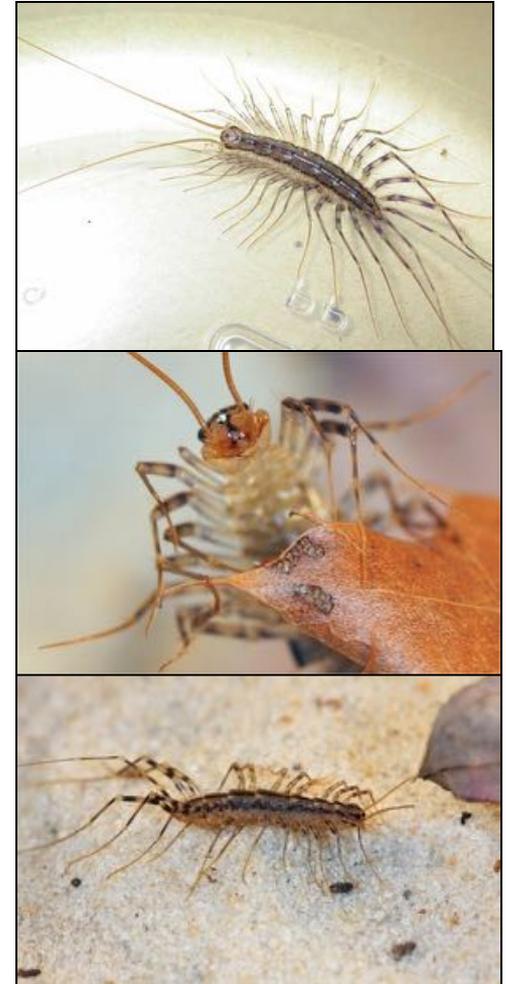
House Centipedes



House centipedes are centipedes with long legs that are brown and yellow-striped.

House Centipedes

- Like other centipedes, they are also nocturnal and are predators, feeding on other arthropods at night.
- They may build-up in large numbers inside...often in the basement where there is more moisture.



House Centipedes



- They often forage for prey at night along the walls

House Centipedes



- They often forage for prey at night along the walls

Spiders

Because of its size, when a two-inch Wolf spider like this one gets inside, customers get a bit concerned.



Spiders



The Jumping spider's movements are nothing to be afraid of, but most homeowners get concerned when they see these spiders inside

Spiders



Wolf spider



Jumping spider



Brown recluse spider



Yellow sac spider



Black widow spider



Cellar spider

Spiders

- Spiders are arachnids. They have 4 pairs of legs and have two body regions with no wings or antennae.
- Spiders have fangs connected to poison glands and use their poison as predators to secure their food... insects and other arthropods.
- Although poisonous, most spiders do not normally bite man and should be of no serious concern to our customers. However, there are three spiders in Georgia that homeowners are concerned about:
 - Black Widow spiders
 - Brown Widow spiders
 - Brown Recluse spiders

Scorpions



Scorpions

- Scorpions are arachnids that have two very large pedipalps for grasping their prey, eight (8) legs, and a stinger on the end of their abdomen which is connected to a poison gland.
- They are predators that search for their food at night (nocturnal).



Scorpions

- Scorpions are fluorescent at night under an ultraviolet light.



Scorpions

- Scorpions are often found under rocks and in rock piles, under leaf litter and mulch piles, and in firewood piles.



Scorpions



Scorpions taste pretty good when they're barbequed on a stick

**The next time your mother makes you eat
broccoli...just be happy it's only broccoli!**

Scorpions on a stick

A plate full of
insect "goodies"





How do they become indoor pests?

Conditions allow them to build up and harbor in great numbers close to the building

Lighting attracts them to the building

Other factors stimulate pest movement into structures

- Environmental extremes (excessive dry spells or excessive rainfall)
- Onset of winter
- Some unusual food source inside the structure

What can customers do to help us help them?

Exclusion

- Seal cracks & crevices in the exterior of the building lead into the structure to prevent pest entry
- Seal cracks and crevices (weather-strip) around and under doors and windows to prevent pest entry
- Maintain tight-fitting soffit, gable and foundation vents to prevent pest entry to the attic and crawlspace areas
- Weather-strip the sides and bottom of the garage door

What can customers do to help us help them?

Remove harborage

- Remove mulch, leaf litter and ground cover from areas adjacent to the structure
- De-thatch the lawn
- Move firewood piles up off of the ground and away from the house
- Remove piles of bricks, rubbish, and improperly stored items which might provide harborage for pets

What can customers do to help us help them?

Environmental alteration

- Reduce moisture in the house by use of a dehumidifier or air-conditioning
- Add ventilation +/- or a vapor barrier to the crawlspace
- Cut back shrubbery and tree branches away from the structure so that they don't touch the structure

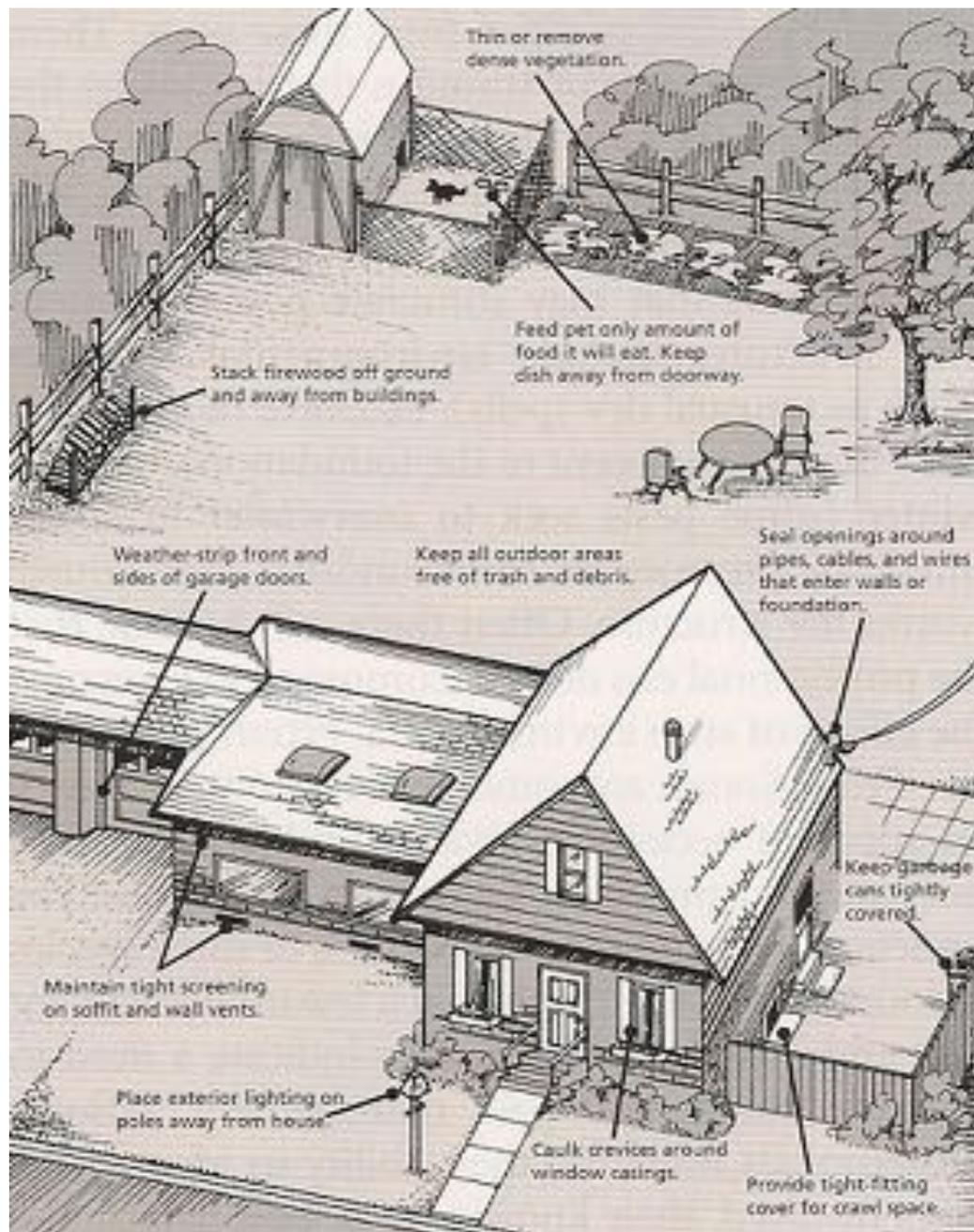
What can customers do to help us help them?

Sanitation

- Keep the lid of the garbage can sealed
- Clean-up trash
- Only leave out the amount of pet food that the pet will eat that day

Lighting

- Change lighting from white bulbs to yellow bulbs (bug lights) or mercury vapor to sodium vapor lamps of low wattage.



What can homeowners do to help control Scorpions?

- Make sure that foundation vents, gable vents and soffit vents are properly screened to prevent scorpion entry.
- Make sure that weep holes are properly proofed to prevent scorpion entry.
- Caulk up any cracks in your foundation or siding so scorpions cannot gain easy access to the home
- Make sure screens do not have any holes in them and fit tightly so the scorpions can not enter through an open window

What can homeowners do to help control Scorpions?

- Remove and dispose of rubbish, rock piles, etc. from their property that may provide harborage for scorpions
- Move firewood piles away from the structure and store firewood off the ground
- Keep the grass short and landscaping trimmed and make sure that there are no branches overhanging above the house
- Insects are attracted to lights and scorpions feed on insects. Change “white” lights that attract insects to “bug” (yellow) lights that attract fewer insects.

Control of Scorpions

What can we do to control Scorpions?

- Scorpions prey on insects. If you can eliminate an insect problems around and in the house, the scorpions will have nothing to prey on
- Treat areas adjacent to a building in a band up to 10' wide with a microencapsulated synthetic pyrethroid pesticide product labeled for such use.
- With the same type of product, treat the building foundation to a height of 2' or 3' in areas where scorpions are active or where they can find entrance to the structure.



Control of Scorpions

What can we do to control scorpions?

- Seal up the cracks and crevices around windows and doors.
- Treat the cracks around windows and doors and in exterior walls with a dessicant dust that contains silica aerogel or diatomaceous earth.
- Make directed contact treatments with synergized pyrethrins for rapid knockdown of any scorpions that you see crawling around outdoors or indoors.



Control of Scorpions

What can we do to control scorpions?

- Treat the cracks between the bottom of the siding that is closest to the grade and the exterior foundation walls with a dessicant dust that contains silica aerogel or diatomaceous earth.
- Use monitoring traps adjacent to the walls of a garage, unfinished basements and any other areas that are likely infested with scorpions.



Control of Scorpions

What can we do to control scorpions?

- Make spot treatments (about 3” wide by 6’ long) on the concrete floors along the walls in garages and in unfinished basements where crickets crawl with a microencapsulated formulation of a synthetic pyrethroid pesticide product that is labeled for that application.
- Use insect monitoring traps along walls in areas where there has been cricket activity to monitor your control of the cricket infestation.



Control of Clover Mites

What can the homeowner do to help?

- Close mowing of grasses and clovers or other ground covers that support clover mite populations.
- Avoid excessive watering or fertilization so that the lush growth of host plants is not encouraged.
- The use of bark around shrubbery will discourage mite populations around buildings.
- Seal up cracks and crevices around windows and doors.



Control of Clover Mites

What can we do to control Clover mites?

- Treatment of the cracks around windows and doors with a dessicant dust containing silica aerogel or diatomaceous earth.
- Seal us cracks and crevices around windows and doors.
- Spot treatments of the area between screens and storm windows, along baseboards, and other entry points with a microencapsulated formulation of a synthetic pyrethroid pesticide product.



Control of Clover Mites

What can we do to control Clover mites?

- Treat areas adjacent to a building in a band up to 10' wide with a microencapsulated synthetic pyrethroid pesticide product labeled for such use.
- With the same type of product, treat the building foundation to a height of 2' or 3' in areas where clover mites are active or where they can find entrance to the structure.
- Make directed contact treatments with synergized pyrethrins for rapid knockdown of clover mites crawling around indoors.



Control of Centipedes

What can the homeowner do to help?

- Reduce the outdoor habitat that encourages the presence of centipedes by removing the trash, boards, rocks, poorly maintained compost piles, leaf litter and leaf piles, thick thatch, mulch, firewood piles that are on the ground, and other moist areas around the structure.
- Caulking cracks & crevices and other openings that permit centipedes to gain entrance to the structure.



Control of Centipedes

What can we do to control centipedes?

- Treat the areas adjacent to a building in a band up to 10' wide. Rake the mulch back, and using a microencapsulated formulation of a synthetic pyrethroid pesticide product, treat the soil and the top of the mulch after raking the mulch back.
- Also treat the building foundation to a height of 2' or 3' in areas where centipedes are active or where they can find entrance to the structure.



Control of Centipedes

What can we do to control centipedes?

- Seal up the cracks and crevices around windows and doors.
- Treat in the cracks around windows and doors with a dessicant dust that contains silica aerogel or diatomaceous earth.
- Make directed contact treatments with synergized pyrethrins for rapid knockdown of centipedes that are crawling around indoors...or simply vacuum them up.



Control of Centipedes

What can we do to control centipedes?

- Make spot treatments (about 3” wide by 6’ long) on the concrete floors along the walls in garages and in unfinished basements where centipedes crawl with a microencapsulated formulation of a synthetic pyrethroid pesticide product that is labeled for that application.
- Use insect monitoring traps along walls in areas where there has been cricket activity to monitor your control of the centipede infestation.



Control of Millipedes

What can the homeowner do to help?

- Reduce the outdoor habitat that encourages the presence of millipedes by removing the trash, boards, rocks, poorly maintained compost piles, leaf litter and leaf piles, thick thatch, mulch, firewood piles that are on the ground, and other moist areas around the structure.
- Seal or caulk cracks & crevices and other openings that permit millipedes to gain entrance to the structure.



Control of Millipedes

What can we do to control millipedes?

- Make spot treatments (about 3” wide by 6’ long) on the concrete floors along the walls in garages and in unfinished basements where millipedes crawl with a microencapsulated formulation of a synthetic pyrethroid that is labeled for such applications.
- Use insect monitoring traps along walls in areas where there has been millipede activity to monitor your control of the millipede infestation.



Control of Millipedes

What can we do to control millipedes?

- Treat the areas adjacent to the building in a band up to 10' wide. Rake the mulch back, and using a microencapsulated formulation of a synthetic pyrethroid pesticide product that is labeled for such use, treat the soil and the top of the mulch after raking the mulch back.
- Treat the foundation walls of the building with the same type of product, up to a height of 2' or 3' from grade in areas where millipedes are active
or where they can find entrance to the structure.



Control of Millipedes

What can we do to control millipedes?

- Treat the cracks around windows and doors and in exterior walls with a dessicant dust containing silica aerogel or diatomaceous earth.
- Seal up the cracks and crevices around windows and doors.
- Make directed contact treatments with synergized pyrethrins for rapid knockdown of the millipedes that are crawling around indoors...or simply vacuum them up.



Control of Pillbugs & Sowbugs

What can we do to control pillbugs & sowbugs?

- The behavior and feeding habits of both pillbugs and sowbugs are very similar to those of millipedes...therefore, the management and pest control methods will be similar.
- Don't forget to lift-up potted plants, trash cans, and other items that might trap moisture underneath...and treat under those areas with a microencapsulated formulation of a synthetic pyrethroid product that is labeled for that application.



Control of Pillbugs & Sowbugs

What can the homeowner do to help?

- Reduce the outdoor habitat that encourages the presence of pillbugs and sowbugs by removing the trash, boards, rocks, poorly maintained compost piles and other damp hiding spots around the structure.



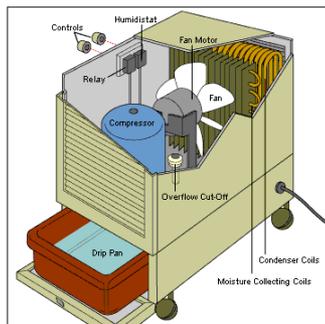
- Caulk the cracks & crevices and seal up other openings to the building that permit pillbugs and sowbugs to enter the structure.



Control of Pillbugs & Sowbugs

What can the homeowner do to help?

- Don't over-water potted plants outdoors or indoors.
- Place firewood up off the ground (so it will stay dry) and store it away from the house.
- Use dehumidifier to dry-out a damp basement.



Control of Slugs & Snails

What can the homeowner do to help?

- Remove all rotting boards, firewood stored on the ground, and other clutter or debris that provide hiding and breeding sites for slugs and snails.
- Reduce watering around shrubbery, potted plants, flower beds, and landscaping to reduce or eliminate damp conditions that favor snails and slugs.



Control of Slugs & Snails

What can we do to control slugs & snails?

- Use bait formulations to control slugs and snails (Mesurol or metaldehyde) in areas where activity is seen...in damp crawlspaces, under shrubs, around rotten stumps, etc.
- Take care to make sure that the bait is placed in areas inaccessible to children & pets.
- Make sure that the homeowner does not use an irrigation system or water the area in which you have placed the bait.



Control of Crickets (House & Field)

What can the homeowner do to help?

- Switching white lights to yellow (bug) lights that will not attract crickets
- Turning lights off outside when crickets are numerous
- Using tight-fitting screens and doors



Control of Crickets (House & Field)

What can the homeowner do to help?

- Reduce the outdoor habitat that encourages the presence of crickets by removing thick mulch, trash, boards, rocks, firewood stored on the ground and other hiding spots around the structure.
- Caulking cracks & crevices and other openings that permit crickets to enter the structure.



Control of Crickets (House & Field)

What can we do to control house & field crickets?

- Seal up the cracks and crevices around windows and doors.
- Treat the cracks around windows and doors and in exterior walls with a desiccant dust that contains silica aerogel or diatomaceous earth.
- Make directed contact treatments with synergized pyrethrins for rapid knockdown of the millipedes that are crawling around indoors...or simply vacuum them up.



Control of Crickets (House & Field)

What can we do to control house & field crickets?

- Rake the mulch away from the foundation wall and shrubs, and using a microencapsulated formulation of a synthetic pyrethroid pesticide, lightly treat the top of the soil, through the mulch. After raking the mulch back, lightly treat the top of the mulch.
- Using the same type of formulation, treat the building foundation to a height of 2' or 3' in areas where crickets are active or where they can find entrance to the structure.



Control of Crickets (House & Field)

What can we do to control house & field crickets?

- Apply a granular bait around the foundation walls of the house in flower beds, in ground cover, around shrubbery, in and around firewood piles, and in other areas where crickets may find harborage
- Granular bait should be scattered outside in areas not accessible to children and pets



Control of Crickets (House & Field)

What can we do to control house & field crickets?

- Make spot treatments (about 3” wide by 6’ long) on the concrete floors along the walls in garages and in unfinished basements where crickets crawl with a microencapsulated formulation of a synthetic pyrethroid pesticide product that is labeled for that application.
- Use insect monitoring traps along walls in areas where there has been cricket activity to monitor your control of the cricket infestation.



Control of Cave/Camel Crickets

What can the homeowner do to help?

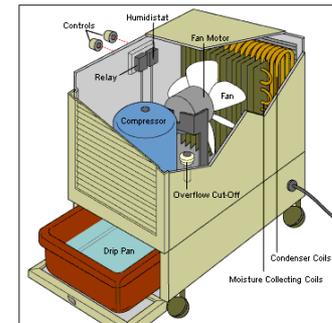
- Reduce the outdoor habitat that encourages the presence of crickets by removing thick mulch, trash, boards, rocks, poorly maintained compost piles and other hiding spots such as firewood piles around the structure.
- Caulking cracks & crevices and other openings that permit crickets to enter the structure.



Control of Cave/Camel Crickets

What can the homeowner do to help?

- Install a dehumidifier in the basement to lower the moisture content of the basement. Cave and camel crickets need a moist environment in which to live. Eliminating the moisture that is found along a basement wall will eliminate this site as a harborage area inside.



Control of Cave/Camel Crickets

What can the homeowner do to help?

- Keep the door to the crawlspace closed to prevent cricket entry.
- Insure that the foundation vents are screened to prevent cricket entry to the crawlspace.
- Keep the crawlspace dry (keep the foundation vents open in warm weather and install a vapor barrier over 70% to 80% of the soil in the crawlspace)



Control of Cave/Camel Crickets

What can we do to control cave/camel crickets?

- Install a vapor barrier over 70% to 80% of the soil in the crawlspace
- Install Temp Vents to provide for the proper ventilation of the crawlspace
- Scatter granular bait in and around firewood piles, around shrubbery, in ivy and other ground cover, and around other harborage areas outside



Control of Cave/Camel Crickets

What can we do to control cave/camel crickets?

- Treat the wooden joists, headers, subflooring and sills within 3 feet of the exterior foundation walls and along the top 2 to 3 feet of the exterior foundation walls inside the crawlspace with a microencapsulated formulation of a synthetic pyrethroid labeled for such an application.

a crawlspace



Control of Cave/Camel Crickets

What can we do to control cave/camel crickets?

- Treat the wooden joists, headers, subflooring and sills within 3 feet of the unfinished basement foundation wall and along the top 2 or 3 feet of the unfinished basement foundation wall with either a wettable powder or a microencapsulated formulation of a synthetic pyrethroid pesticide product that is labeled for such use.

In an unfinished basement



Control of Earwigs

What can the homeowner do to help?

- Switching white lights to yellow (bug) lights that will not attract earwigs
- Turning lights off outside when earwigs are numerous
- Using tight-fitting screens and doors



Control of Earwigs

What can the homeowner do to help?

- Reduce the outdoor habitat that encourages the presence of crickets by removing thick mulch, trash, boards, rocks, poorly maintained compost piles and other hiding spots around the structure.
- Caulking cracks & crevices and other openings that permit crickets to enter the structure.



Control of Earwigs

What can we do to control earwigs?

- Treat the cracks around windows and doors and in exterior walls with a desiccant dust containing silica aerogel or diatomaceous earth.
- Seal up the cracks and crevices around windows and doors.
- Make directed contact treatments with synergized pyrethrins for rapid knockdown of the earwigs that are crawling around indoors...or simply vacuum them up.



Control of Earwigs

What can we do to control earwigs?

- Treat the areas under mulch and objects that are adjacent to the foundation walls of a building. Rake the mulch back, and using a microencapsulated formulation of a synthetic pyrethroid pesticide, lightly treat the soil, through the mulch and the top of the mulch after raking the mulch back.
- Also treat the building foundation to a height of 2' or 3' in areas where earwigs are active or where they can find entrance to the structure.



Control of Earwigs

What can we do to control earwigs?

- Apply a granular bait around the foundation walls of the house in flower beds, in ground cover, around shrubbery, in and around firewood piles, and in other areas where earwigs may find harborage
- A granular bait should be scattered outside in areas not accessible to children and pets



Control of Earwigs

What can we do to control earwigs?

- Earwigs often find harborage under things...under potted plants, under garbage cans, under splash blocks, firewood, under stepping stones, and under concrete slabs that are attached to the building.
- Lift items up and treat beneath and treat the cracks between attached concrete slabs and the building with a microencapsulated formulation of a synthetic pyrethroid product.



Control of Earwigs

What can we do to control earwigs?

- Lift up stepping stones, trash cans, rocks, boards, splash blocks under downspouts, and rubbish and treat underneath them with a microencapsulated formulation of a synthetic pyrethroid pesticide product.



Control of Springtails

What can the homeowner can do to control springtails?

- Springtails need moisture under thatch and leaf litter. Eliminating excess thatch eliminates the moisture that springtails need to survive. Homeowners need to dethatch the grass with excess thatch!



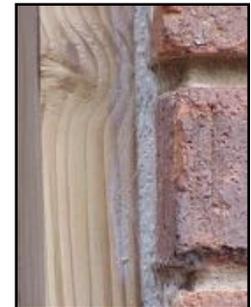
Control of Springtails

What can the homeowner can do to control springtails?

- Springtails need moisture under thatch and leaf litter. The homeowner can eliminate the moisture by raking up leaf litter.



- Springtails can gain entrance through very small cracks in the foundation wall, around windows, around and under doors, around pipes going through walls, etc. The homeowner should caulk cracks & crevices and other openings that permit springtails to gain entrance to the structure.



Control of Springtails

What can we do to control springtails?

- Treat the areas adjacent to the building in a band up to 10' wide. Rake the mulch back and using a microencapsulated formulation of a synthetic pyrethroid pesticide product that is labeled for such use, treat the soil and the top of the mulch after raking the mulch back.
- Treat the foundation walls of the building with the same type of product, up to a height of 2' or 3' from grade in areas where springtails are active or where they can find entrance to the structure.



Control of Springtails

What can we do to control springtails?

- Seal up the cracks and crevices around windows and doors.
- Treat the cracks around windows and doors and in exterior walls with a dessicant dust containing silica aerogel or diatomaceous earth.
- Make directed contact treatments with synergized pyrethrins for rapid knockdown of the springtails that are crawling around indoors...or simply vacuum them up.



Control of Asian Lady Beetles & Cluster Flies

What can the homeowner can do?

- Mechanical exclusion seems to be the best method of control to keep lady beetles, as well as all other overwintering pests, from entering homes and buildings. Cracks around windows, doors, siding, utility pipes, behind chimneys, and underneath the wood fascia and other openings should be sealed with good quality silicone or silicone-latex caulk. Damaged screens on doors and windows should be repaired or replaced. Attics, fireplace chimneys, and exhaust vents should be covered with number 20 (or smaller) screen mesh.



Control of Asian Lady Beetles & Cluster Flies

What can we do?

Communication with the customer is essential to create the proper expectation!

- We cannot stop overwintering pests from trying to invade a structure...so mechanical exclusion is the only way that their entry...and that must be done either by the homeowner or the PCO to limit entry.
- Mechanical exclusion (if we choose to)
- Light traps in an attic
- Vacuum up lady beetles & cluster flies that are overwintering in the attic.