

Kansas Insect Newsletter

For Agribusinesses, Applicators, Consultants and Extension Personnel



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Nuisance Moths = “Miller Moths” = Army cutworm Moths

Recent questions have been received inquiring about the annoying “miller moths”. Also, numbers of moth captures in my (at home) blacklight trap have picked up

What are they? Why so many? What can I do about them?



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“Miller moth” is an all-inclusive umbrella term used to describe any plain brown drab moth. Because virtually all moth species have wings covered with scales, those scales are fluffed off like dust-in-the-air (as dust associated with flour milling plants). At this time of year, the “miller moths” of note are army cutworm moths, *Euxoa auxillaris*.

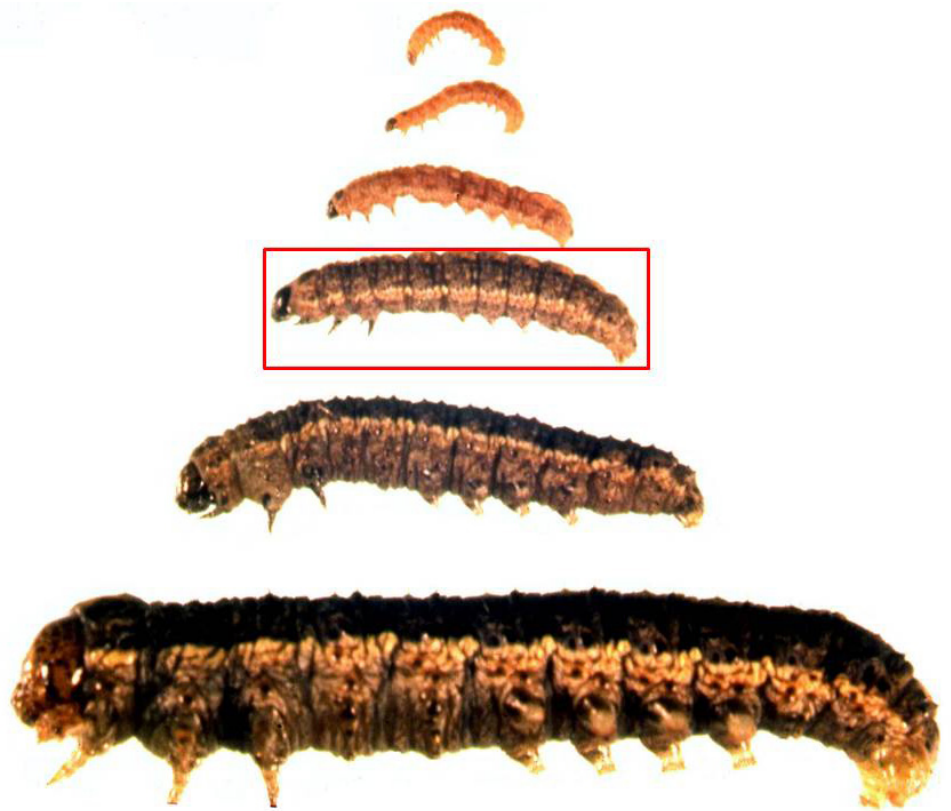
Upon close examination, army cutworm moths definitely are not plain, brown or drab. There are 5 morphological forms (called varieties) of army cutworm moths. Each possesses its own intricate and distinctive wing pattern. Adding more to the visual array, brown forms of each variety are males, whereas grayish individuals are females.



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The seasonal life history begins in the fall of the year when moths deposit eggs in the soil in fields of fall-seeded wheat, alfalfa stands and weedy fields/patches. Eggs may hatch within several days of being deposited, but may be delayed under unfavorable/dry conditions. Larvae preferably feed during the dark of night, and seek shelter in the soil during daytime hours. Army cutworms overwinter as partially grown larvae (red rectangle).



Each year in the central plains states, overwintered army cutworm larvae resume their feeding as temperatures moderate/become warmer. They complete their development towards the beginning of May, after which they burrow into the ground where they create protective earthen cocoons inside of which they pupate.



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Moth emergence usually begins by late May. Although moths are the mature form of the army cutworm, at this point in time, they are not sexually mature. For a period of time, moths remain near areas where they emerged. Then an undefined stimulus (likely photoperiod driven) signals moths across the central plains states to migrate westward to the higher elevations in the Rockies. There in the cool-of-summer, they feed, accumulate body fat and attain sexual maturity. In mid- to late September, they migrate back to the central plains where they deposit eggs (as previously described) to initiate the next generation of army cutworms.

The current complaints revolve around the moths. Again, because moths are active during evening hours, they shun daylight. That is, with the approach of daylight, army cutworm moths seek shelter/cover in any conceivable space. Excluding moths is difficult because they will exploit very small openings. Because garage doors seldom are tight fitting, when one opens the garage door, a flurry of moths may rush out. A car window left open overnight provides an attractive entry point – and when one gets ready to drive to work, he/she will be greeted by a flurry of excited moths. Open a polycart to deposit a trash bag and you may be greeted by a rush of moths. Take an early morning walk and as you pass a line of shrubs, you may be startled by hundreds of excited moths darting out. And so on. In homes, catch or swat a moth on your wall or curtains/sheers and you will find a coating of “dust” (wing scales) left behind.

An example of the “dust” produced by army cutworm moths can be seen where moths gathered from a single blacklight trap are dumped out of a garbage can. Talk about being up-to-your-neck in army cutworm moths!



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Another interesting tidbit about army cutworm moths: food for grizzly bears. During summer months, bears move to the higher elevations to feast on army cutworm moths. It was determined that single moth possesses $\frac{1}{2}$ calorie of fat content. It was further estimated that a bear obtains 20,000 calories of fat on a daily basis by consuming 40,000 moths per day.



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Millipedes On-The-March?

While I am not saying that this will happen, the excessive spring rains might be conducive to promoting movements of massive populations of millipedes. Millipedes in of themselves are harmless (do not bite, sting transmit diseases), and in fact are beneficial in their natural role as decomposers (feeding on dead organic matter). It is the sudden presence of large populations moving in and about residential properties that can be disconcerting.

Millipedes are elongated wormlike arthropods. They can be differentiated from centipedes by virtue of the number of legs per body segment. Whereas centipedes have a single pair of body legs per segment, millipedes appear to have 2 pairs per body segment. I use “appear” because what appears to be a single body segment actually is comprised of two fused segments, each with a pair of legs.

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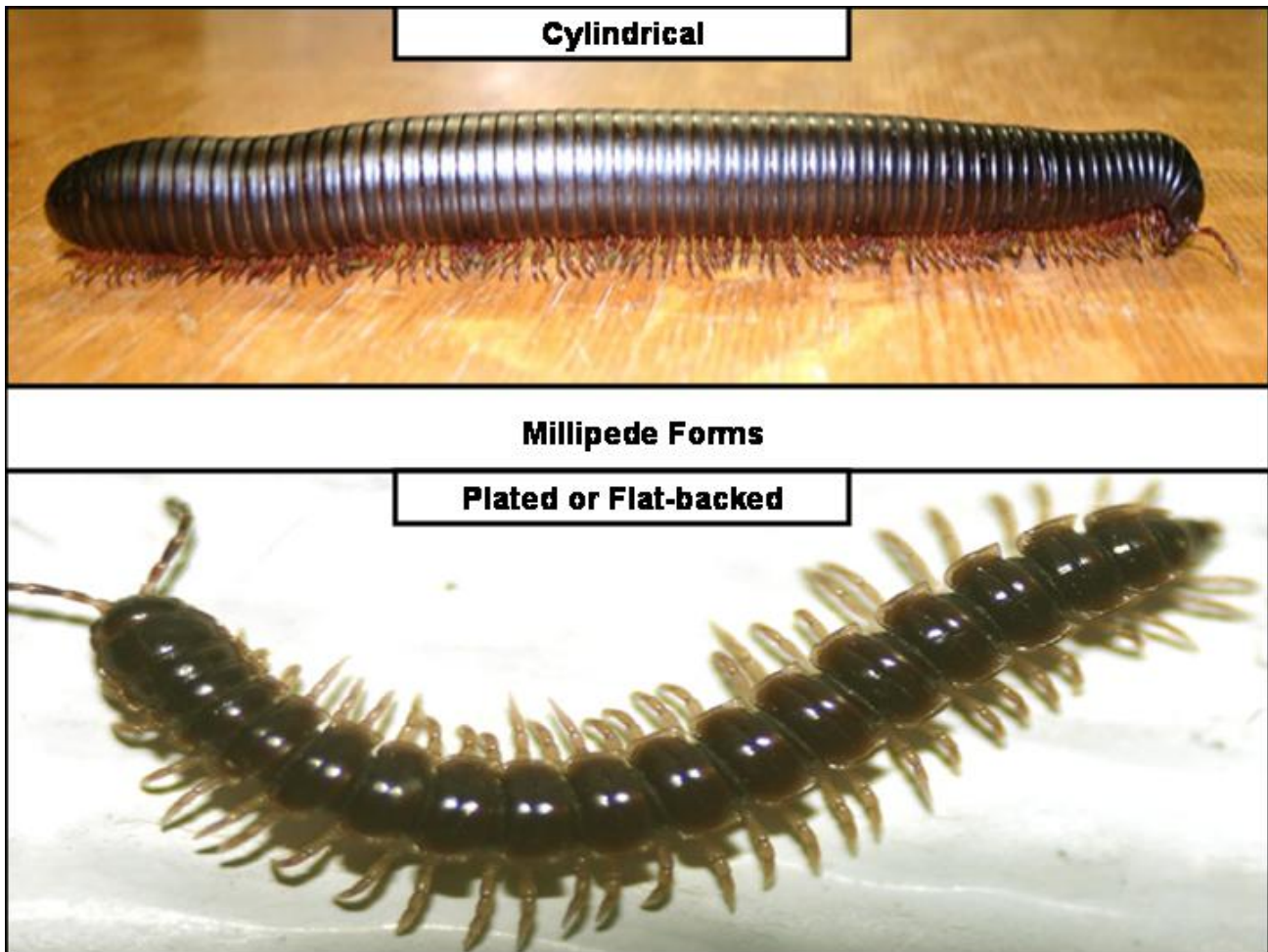


Millipede – appear to be 2 pairs of legs per body segment

Centipede – 1 pair of legs per body segment



Photo Credit: Peter Hollinger
Cambridge, MA



The two most common body forms for millipedes common are cylindrical and plated (flat-backed). Cylindrical millipedes are sometimes referred to as “wireworms” (not to be confused with “true wireworms” – the larvae of click beetles), and when viewed from above, their legs are somewhat hidden due to their ventral position. The legs of flat-backed millipedes are more highly visible as they project outward from beneath the extended plate.

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The life cycle of millipedes extends over a period of years. Depending of conditions, development from egg to adult may require 2 - 4 years, with adults living additional years. Thus over time, millipede populations build up (especially) in heavily wooded areas which satisfy their preference for shaded and moist environments where they primarily feed on decaying organic matter, notably leaf litter.



For reasons unknown, countless numbers of millipedes move/march in droves. They make their presence known when they invade yards and homes. This accounts for reports the reports of “worm invasions”. And although millipedes are harmless to people and pets, they may enter garden areas and sometimes feed on tender plants.

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The most common complaint, however, is their disconcerting presence. They are mostly observed around daybreak when massing on sides of buildings, patios/decks, driveways and sidewalks and decorative rocks. Especially on hot sunny days, they rapidly disappear as they seek protective shelter/cover, only to re-emerge during the ensuing evening.



Frustrations arise when attempting to control millipedes. Again, millipedes seek “hiding places” ---- any available crack or crevice in the soil, under bark mulch, under landscape stonework, gravel, plastic ground cover, leaf litter in and around homes. Elimination of these protected sites is impractical-to-impossible. Insecticides registered for use as perimeter treatments will eliminate those millipedes in the target area. However repeated applications will be required for the duration of millipede invasions. Another nuisance factor: the dead millipedes will have to be swept up and disposed of. The best news is that millipede activities stop as suddenly as they began!

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Bob Bauernfeind

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Insect Diagnostic Laboratory Report

<http://entomology.k-state.edu/extension/diagnostician/recent-samples.html>

Eva Zurek

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Sincerely,

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