BUG BIZ
Pest Management and Insect Identification Series
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The Greenhouse Millipede, *Oxidus gracilis* (Diplopoda: Paradoxosomatidae)

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Description

The greenhouse millipede is a member of the class Diplopoda, the millipedes. Millipedes are characterized by possessing body segments that each constitute two combined segments (diplosegments). Each segment bears two pairs of legs that are used for walking and climbing. The greenhouse millipede has no eyes and relies on its antennae to navigate its environment. They are black to dark brown in color with cream-colored or white legs and paranota (side extensions of the segments, as seen in the second image). Adults are approximately three-quarters of an inch or 1 inch (18 to 24 mm) in body length.

Additional common names include garden millipede and hothouse millipede. Species within the family Paradoxosomatidae are commonly referred to as dragon millipedes because of their vibrant colors and interesting external structures. By comparison, this nonnative species is drab in appearance.

Life Cycle and Ecology

The greenhouse millipede was likely introduced to the Americas and Europe through gardening soil from Asia. They occur in tropical and temperate areas and are common throughout the United States. In Louisiana, they often invade garages and other open structures and can be seen on paved areas such as cracks in sidewalks and driveways. They may enter homes under door gaps and, true to their common name, can infest greenhouses.

Millipedes are detritivores, feeding on leaf litter and other debris. They prefer moist habitats, such as flower beds and leaf piles, and scrape calcium carbonate off the surfaces of sidewalks and rocks. When their needs for moisture, debris and mineral-rich surfaces are met, they can reach large population densities. Like many millipedes, the greenhouse millipede releases foul smelling toxins when threatened. As a result, few predators will consume them. Greenhouse millipedes are poisonous if consumed by predators but are harmless to humans.

Adult greenhouse millipede, with coin for scale. Joseph LaForest, University of Georgia, Bugwood.org.

Adult greenhouse millipede. Joseph Berger, Bugwood.org.

Millipedes grow continuously until they reach adulthood, adding a new segment with each molt. Adult males have a pair of modified legs called gonopods that act as reproductive organs, leaving that diplosegment with a single pair of legs and another pair of gonopods. Adults may mate several times. After mating, females lay their eggs in moist soil. Little is known about the egg and juvenile stages of millipedes. When molting, the millipede will enclose itself in a ball of mud for protection until it is ready to emerge.

Ecological Significance and Pest Status

Millipedes are typically beneficial to ecosystems, recycling decaying leaves and other organic matter. However, the greenhouse millipede is not native to the United States and prefers urban environments. Their propensity to invade greenhouses and other structures, combined with their foul defensive odor, makes them a nuisance. Because of their adaptability to new environments and lack of natural enemies, greenhouse millipedes thrive in artificial environments.

Control

No pesticide control protocol currently exists for these millipedes. The best nonchemical solution is to vacuum them up, both alive and dead, and empty the bag outside to avoid the smell.

References

Hoffman, R. L. 1999. Checklist of the millipedes of North and Middle America. Virginia Museum of Natural History Special Publications 8: 1–553.

Contact us

For advice about arthropod identification or diagnosis, contact the LSU AgCenter Department of Entomology. Reach the department through the Contact Us webpage:

https://bit.ly/36c4awm

The pink dragon *(Desmoxytes purpurosea)*, a species from Thailand that is a more typical representative of the Paradoxosomatidae. This species' bright pink colors signal its poisonous chemical defenses. Chulabush Khatancharoen, used under the Creative Commons 2.0 license, Flickr.com.

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