

Insec(tc)ure*:

Are you insecure about your insect cures?

A University of Tennessee Urban IPM Lab Newsletter for the Pest Management Industry

Bizarre Occurrence of Blister Beetles Indoors

Karen Vail, UT Entomology & Plant Pathology

Thanks to Jarvis Mimes for submitting this image of a black insect in the blister beetle family *Meloidea* found on a glue board in a school in far western Tennessee on January 14, 2026. I must say this is the first time I've "seen" a blister beetle indoors, not including barns. Adult blister beetles can release cantharidin, which can blister skin when contacted, and has been known to kill livestock when consumed in baled hay. At first, the presence of blister beetles in a school perplexed me, and their appearance in the middle of January only added to the mystery. Sure, there were 19 days from December 1 to January 14 when the highs were above 60 degrees F, which may have allowed the adults to remain active, but there were also 12 days when the lows were below freezing in Memphis. Maybe the freezing temperatures weren't long enough to affect the adult beetles, or perhaps the beetles were introduced on flowers into the building. Both possibilities seem unlikely.

Further investigation revealed that this is an oil beetle, *Meloe* sp., in the blister beetle family. Their short wing covers (elytra) and lack of hind wings prevent flight and reduce dispersal. While other blister beetles overwinter in the last larval stage, pupate in the spring, and adults appear in the summer, some species of oil beetles are present as adults throughout the winter and spring. Now it makes sense. It's challenging to identify this *Meloe* to species from the given photo, but I'll describe the behavior and biology of *M. americanus* to explain its possible appearance in the school. *Meloe americanus*, the only North American *Meloe* species known to be attracted to light, is primarily active at night and can be found in leaf litter and under rocks and logs during the day to avoid light. Unlike other species of blister beetles, these usually don't aggregate. The adults feed on plants such as buttercups, sow thistles, and other plants. Many of their food plants are close to the ground, and they don't spend much time on the plant, which reduces predation risk. Large numbers of eggs (~1000) are laid into excavated soil cavities, which are then covered with soil. The first instar larvae are often active on flowers and may engage in phoresy or hitch a ride on a bee to its nest, where they become grub-like in subsequent molts after feeding on nest provisions or the bee larvae. Their life cycle is too complicated to describe here, but suffice it to say they go through various larval stages before pupating, and the adults emerge in the winter.

The mystery remains as to how the beetles entered the structure. The beetles were found in an area with no exterior doors nearby. That is, they were found in a classroom that connects the gym to the library, and the exterior door was on the gym side, so it was not too close. No piles of stacked hay were noted nearby,



An oil beetle, Meloe sp. found on a school glue board.

grass was cut closely, no piles of leaves or grass that would have protected them from the cold or light were found, and no trees were present.

I warned Jarvis not to touch the beetles to prevent any cantharidin from coming into contact with his skin, and he has removed the beetles from the school. There's not much more he can do, except be watchful of their appearance next year. It wouldn't hurt to check the seal on exterior doors. Even if they didn't enter this route, having a sound envelope will keep other occasional invaders out.

References

Colorado Insect of Interest: Black Blister Beetle. <https://wci.extension.colostate.edu/wp-content/uploads/sites/14/2017/03/BlackBlisterBeetle.pdf>

Pinto, John D.; Selander, Richard B. (1970). *"The Bionomics of Blister Beetles of the Genus Meloe and a Classification of the New World Species"*. Illinois Biological Monographs. **42**. doi:10.5962/

Yep, add another ACE to the list.

Please congratulate Meredith Boyd of Waynes Pest Control for passing the Entomological Society of America's Associate Certified Entomologist (ACE) Exam. Each year, I challenge the class to beat my score. If they do, I'll treat the class to dinner. Meredith had me worried - I even scoped out restaurants that were open on Mondays. Find out more about becoming an ACE (<https://entocert.org/ace>) and our UT ACE Exam Prep Course (<https://tiny.utk.edu/ACEPrepFall2025>). Be aware that I'm planning changes to the ACE class and will likely invite undergraduates to join us on Monday evenings. More to come on this subject.



Upcoming Category 7 PMP Educational Opportunities

Chattanooga Area Pest Control Association Spring Conference, February 11, 2026

Register: Contact Ron Schwalb

7:45 am Introductions

8:00 Chris Jamison - Safety and Calibration of Pest Management Equipment

9:05 Dr. Dan Suiter - Termite Management Pre and Post 1995

10:05 Break with vendors

10:35 Lisa Ames - Mimicry and Deception in the Pest World

11:35 Lunch

12:30 Dr. Karen Vail - Assisting Suspected Delusional Infestation Sufferers

1:35 Dr. Jamel Sandidge - Cockroaches

2:35 Break with vendors

3:05 Dr. Jamel Sandidge - Ant Investigations

4:10 Dr. Dawn Ford - Mosquitoes and Mosquito-Borne Diseases of the South

5:10 pm Dismissal

2026 TPCA Winter Conference, Embassy Suites, Franklin, February 17 - 19, 2026

Register: <https://tpca.info/event-6471264>

TPCA WINTER CONFERENCE

TUESDAY, FEBRUARY 17

5:00-7:00 **PWMP & PestVets Happy Hour & Axe Throwing**
Sticks & Stones Axe Co
615 Bakers Bridge Ave, Franklin, TN 37067

WEDNESDAY, FEBRUARY 18

6:00-7:30 **Breakfast Included for Hotel Guests at Embassy Suites Hotel**

7:30 **Registration**

8:00 **Welcome**

8:15 **Battling the Invaders: Strategies for Managing Stinging Ants and Other Updates from UT**
Dr. Karen Vail, Professor of Entomology, UT Knoxville

9:15 **How to Hire, Train and Motivate the Next Generation of Techs**
Nancy Troyano, PhD, BCE, Rentokil-Terminix, Jeremy Bradley, ACE Arrow Exterminators, Jennifer Emerson, Golden Circle Exterminators, Facilitated by Lexus Jenkins, All-American Pest Control.

10:15 **Break**

10:30 **Brown Recluse: Myths, Facts & Strategies**
Dr. Janel Sandidge, MA, PhD, BCE, National Director, Technical Services, Nisus Corporation

11:30 **Vendor Expo & Lunch**

1:00 **Hidden Threats Mastering the Art of Unseen Pests**
Dr. Mohammed El Damir B.C.E., Technical & Training Director, Adam's Pest Control

2:00 **Break**

WEDNESDAY, FEBRUARY 18

2:15-4:15 **Get Your Business Found with Practical AI Strategies**
Kathryn Good, Founder, Good Circle Marketing

6:00-9:00 PICKIN' & PARTNERIN'
SONGWRITERS' NIGHT & RAFFLE FUNDRAISER

Enjoy a night of Tennessee storytelling, networking, live music, and dinner! This exciting event is included in your registration.

Buy raffle tickets for you and your team online or in person to benefit Dr. Karen Vail's Urban Entomology Fund and a chance to win amazing prizes.

THURSDAY, FEBRUARY 19

6:00-7:30 **Breakfast Included for Hotel Guests at Embassy Suites Hotel**

8:00 **TPCA Annual Industry Awards and Board of Directors Meeting**

9:00 **Importance of Pest Control within a Robotic Environment & Warehouse**
Robert Lockwood, CE, PCQI - HACCP Technical Service Manager, Region 4B Support & Non-Food Manufacturing & Logistics/Warehousing, Rentokil

10:00 **Stages of Growth Panel - Bold Moves & Lessons Learned**
Facilitated by Josh Topham, Azum Pest Management

11:00 **Conclude**

7 CEUs in TN pending approval; CEUs applied for in AL, GA, KY & MS

51st Mid-Atlantic Mosquito Control Association (MAMCA) Annual meeting, Double Tree, Memphis, February 17 - 19, 2026

Register: <https://www.mamca.org/annual-conference>

TPCA's PestEd: Virtual CEUs, February 25th, 2026

8:00 AM - 9:00 AM (Central Time)

Speaker: Dr. Aaron Ashbrook, LSU

Topic: Red Imported Fire Ants (RIFA)

Register: <https://tpca.info/event-6331960>

Wood-destroying Organisms (WDO) and General Pest and Rodent Control (GRC) Licensing Training, ^aApril 14, ^bJuly 14 and ^bOctober 27, 2026

<https://psep.tennessee.edu/licensed-pest-control-operator/>

^a Rutherford County Extension Office, 315 John R. Rice Blvd., Murfreesboro

^b Central Region Extension Office, 5201 Marchant Dr., Nashville, TN 37211

Register:

https://secure.touchnet.com/C21610_ustores/web/store_cat.jsp?STOREID=1&CATID=14&SINGLESTORE=true

Pest Control Advisory Board to the Tennessee Department of Agriculture

April 7, July 15, October 28, 9:30 am

Typical location: Ellington Agricultural Center, Porter Building, 436 Hogan Road, Nashville, TN

<https://www.tn.gov/agriculture/news.html>

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To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label and registered for use in your state.

Disclaimer

This publication contains pesticide recommendations that are subject to change at any time. The recommendations in this publication are provided only as a guide. It is always the pesticide applicator's responsibility, by law, to read and follow all current label directions for the specific pesticide being used. The label always takes precedence over the recommendations found in this publication.

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