

Drugstore Beetle

Order: Coleoptera (Beetles)
Family: Anobiidae
Species: *Stegobium paniceum*



Identification & Life History:

Drugstore beetles come from a large beetle complex of families called the Bostrichoidea that are all very difficult to identify, even to the trained eye. Adults are little reddish-brown beetles about 1/8 inches long. The head is almost totally concealed from view when looking down at the beetle's back. When viewing from the side, you can see that the head is tucked underneath the prothorax (the segment behind the head) giving it a hunch-backed appearance. The overall body shape is oval. The head, prothorax and elytra (wing covers) of drugstore beetles are covered in tiny, fine hairs, which are arranged in rows on the wing covers. The larvae are c-shaped, creamy white grubs with a dark head capsule.

The length and timing of the lifecycle for drugstore beetles is dependent on food and temperature. The complete lifecycle can range from two to seven months long. After mating, females lay up to 75 eggs. The newly hatched larvae feed for two to twenty months, depending on the environmental conditions. Pupation lasts for two to three weeks. Adults can live quite long, up to 65 days.

Damage & Monitoring:

The drugstore beetle is a cosmopolitan, junk food junkie. A more appropriate name would be the kitchen sink beetle, or the pig beetle, or better yet, the goat beetle, because they eat everything! It got its name because it can be found infesting prescription drugs. Drugstore beetles commonly feed on dried, stored products like: flour, dry mixes, chocolate, spices, dried herbs, cookies, stored grains and dried fruits and vegetables. Other edible items that this beetle has been found feeding on include: wool, leather, horns, hides, books, and wood. More amazing food items include drugs, toxins, such as strychnine powder, and tin cans! Much like wood-eating organisms, drugstore beetles contain symbiotic yeast that helps them digest these 'food' items. This yeast can produce complex nutrients such as B vitamins that make it possible for this beetle to eat junk.

Because they can survive with such interesting diets, an infestation can be difficult to get rid of if these beetles go unchecked for some time. Watch for accumulation of beetles at windowsills. Most samples coming into the office are from curious customers who collected adult beetles from windowsills in autumn. Look for adult beetles in stored food products regularly. Monitoring for the grubs is difficult due to their small size and secretive habits. The most common discovery of drugstore beetles in the grub stage is following the bad taste from your spoonful of morning cereal. Regularly check boxed cereals, mixes and grains, for small shot holes chewed through the sides. Look for small piles of dust and debris coming from containers and bags. If you are serious about monitoring drugstore beetles, pheromone traps and lures can be purchased.



Management:

Pesticides are not generally recommended or needed to remedy a drugstore beetle infestation. If the infestation were bad enough to warrant an insecticide, it would be worth calling a professional. Most infestations can be managed by diligence. Careful shopping, cleaning and food storage habits will rid you of your pantry pest problems.

If free-living adults are found, look for potential food items in your pantry. Once the food item is found, throw it out if it is heavily infested. Closely inspect other food items. Questionable food items can be temperature treated by freezing them for a few days or heating them to 120-130° F for a few hours. Heat to 180°F for faster results. Take care in temperature treating food items; you may ruin the product. Do not store dried food items exposed. Food items should be stored in airtight containers. Clear plastic Tupperware containers are good to use to monitor future beetle infestations. This storage practice should be used when buying bulk food items that will be around for a while in your pantry.



Thoroughly clean areas where food is stored. Pay attention to hard to reach places where food crumbs can accumulate. Do not store pet food in areas that are close to your pantry. Many dried pet foods harbor drugstore beetles, along with other pantry pests. Store pet food in airtight containers in the garage or outside. This storage practice should be used when storing birdseed, a great source for Indian meal moths. Many times, just by inspecting products at the store before you buy them can prevent infestations. I believe that this is the most common way for beetles to make it to your home. With an attentive eye, a little foresight and some diligence, drugstore beetle problems can be easily remedied or avoided. I've had college roommates with similar diets but was much harder to get rid of.