

## Drugstore Beetles



Drugstore beetle. Photograph by Siga; Wikimedia Commons.

The drugstore beetle, *Stegobium paniceum*, is a tiny, brown beetle found infesting a wide variety of dried plant materials. Adult beetles are humpbacked and about 1/10th inch (2 mm) long. This beetle is found worldwide but is more common in warm climates. It was dispersed by human activities and its not clear where the beetle originated.

They are called drugstore beetles because they were originally viewed as pests of pharmacies or what was then known as apothecaries that compounded medicines from herbs and other natural materials. These beetles would feed on the dried herbs. They are known to feed on a wide variety of dried plants, some of which are very, very toxic, such as strychnine, tobacco, dried habanero peppers and cloves.

These beetles are generalized stored product pests. In addition to dried leafy plant material they will also feed on other dried foods, such as grains, tortillas, bread crumbs and pasta, as well as hair, leather, books and herbarium specimens. In keeping with this theme they will also feed on dried flower arrangements and paper mache.

Although drugstore beetles can fly and disperse out of doors, they are most likely to enter a home or business in bulk materials, such as dried dog food or bird seed. They can build up large populations in bulk materials before becoming noticeable. Adult beetles apparently do not feed but they are adept at chewing circular holes in food stuffs and packaging. The first indication of their presence might be the presence of circular holes in materials and fine powdery debris in the bottom of packaging.

The best way to control drugstore beetles is to find the source of the infestation. This is not always easy as the infestation may have spread to a number of separate packages or sites.

All edible materials, likely to be sources of infestation, need to be inspected and moved into sealed hard plastic, metal or glass containers and the packaging discarded. Infested materials can either be discarded or frozen. Freezing will kill adults, larvae and eggs but the material must be kept below  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) for one week.

Other kinds of clean-up are also needed. Areas where food or bulk materials are stored need to be thoroughly vacuumed, with particular attention to cracks and gaps. Other sites of infestation might include materials accumulated by rats and/or mice in crawl spaces, wall voids and behind cabinets, or bird nests.

Chemical treatments for this pest are not particularly recommended for home use. Diatomaceous earth powder can be applied to cracks, crevices, beneath appliances and similar areas. However, use of this material should be limited to low traffic areas as it is not good to inhale.

Pheromone traps are available that can be used to monitor the presence of these beetles. They use the drugstore sex pheromone produced by females. However the traps are not particularly good at controlling the beetles because they only attract males, and large numbers of traps must be used to collect enough of the male population to make a difference.



Drugstore beetle infested food. Photo courtesy of Bohart Museum.