

FOOD-INFESTING FUNGUS BEETLE

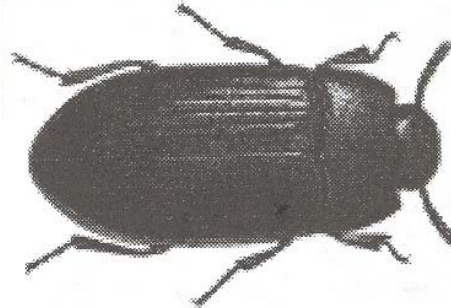
FAMILY : Tenebrionidae, Mycetophagidae

SPECIES : *Alphitobius* spp. *Typhaea stercorea*

IDENTIFICATION CHARACTERISTIC

Black Fungus Beetle

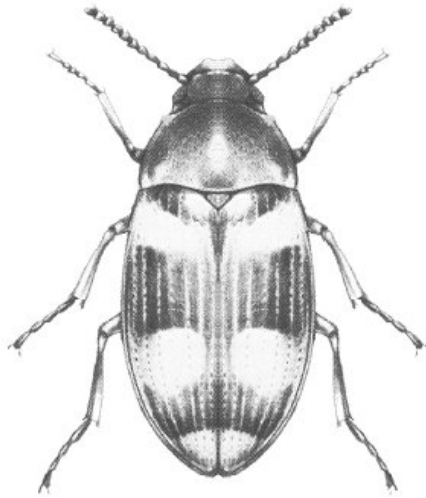
Two fungus beetles that infest food products are closely related to the lesser mealworm beetle. The black fungus beetle, *Alphitobius laevigatus* is of similar size (1/4", 6mm), shape and coloring to the lesser mealworm beetle, however, its eyes when viewed from the side, are different. The eye of the black fungus beetle is partially divided in two by the margin of the head, while the eye of the lesser mealworm beetle is almost entirely divided by the margin.



Black Fungus Beetle

Two-Banded Fungus Beetle

The two-banded fungus beetle, *Alphitophagus bifasciatus* is a small beetle (1/10", 2.5mm) that is reddish-brown in colour. A broad band of black is found across the middle of the elytra (wing covers), along with a thinner band of black towards the rear of the wing covers.



Two-Banded Fungus Beetle

Hairy Fungus Beetle

The hairy fungus beetle, *Typhaea stercorea*, is a tiny beetle of the family Mycetophagidae (means “fungus eater”) measuring approximately 1/10 inch (2.5 to 3mm) in length, is broadly oval in shape and is brownish in color. The entire body and legs are covered with fine hairs, and the antennae have 11 total segments and ends in a distinct three-segmented club. Other species of the family Mycetophagidae may be encountered and these will generally be brown or black in colour with some species having spots on the wing covers.



Hairy Fungus Beetles

BIOLOGY AND LIFE CYCLE

Black fungus beetle is similar in biology to the lesser mealworm beetle, but it is less commonly encountered, although it may be found throughout the world where grain is grown and stored. The life cycle is completed in 35 to 60 days. Black fungus beetles survive only where high moisture conditions are present. These conditions permit the growth of the molds and fungi that serve as their food source.

Two-banded fungus beetle is partial to moist and moldy grain and grain by-products. The molds and fungi is its primary food source.

Hairy fungus beetles live primarily outside under the bark of trees and logs. One species, *Typhaea stercorea*, is the most common species found living in moist and moldy grain, and it can be a significant pest in some areas. Other species may occasionally be found in buildings, however, these infestations are likely opportunistic occurrences where the specific conditions are right for survival and the beetle happened to enter the building and find them.

DAMAGE

Fungus beetles infest food products that have become damp and moldy. They also may appear in buildings where excessive moisture conditions have lowered fungi to grow in crawl spaces, inside walls and in basements. Black fungus beetles have been reported in corn storage and processing facilities where grain spillage accumulates, absorbs moisture and becomes moldy. Corn spilled outside around loading areas and railroad tracks, as well as waste grain dumped outside, are likely breeding sources for this beetle. Other foods besides corn that are attacked include cereal, bread, flour, linseed, cotton seed, cocoa, chocolate and peanuts.

INSPECTION AND MANAGEMENT

Fungus beetles prefer moldy, moist and out-of-condition grain products so inspections should focus on identifying sites where these food sources could be allowed to accumulate. Move grain about with a screwdriver or a knife and look for larvae, pupae and adult beetles. Be especially aware of moist grain that gives off a faint odor of fermentation. In rare cases, hairy fungus beetles or similar species may infest buildings surviving on fungi and mold growing in moist areas in walls, crawl spaces, basements, etc. Be aware of this possibility and inspect for moist situations created by leaks, poor ventilation, etc.

When infestations of fungus beetles are found, removal of all infested food product should be completed. Treatments of cracks in those areas with a residual insecticide may be needed in case adults or larvae are harboring there. Spot treatments using appropriately labeled residual insecticide may be helpful in situations where large numbers of these beetles are present. Applications should be made only after infested food materials have been cleaned up and discarded.

If fungus beetles are found to be living on fungi in wet areas, take steps to dry the areas out. Appropriately labeled dust or liquid insecticides may be applied to these areas to provide temporary relief until the moisture conditions are eliminated.