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A Product of the Integrated Pest Management Working Group

Hide Beetle

Dermestes maculatus (De Geer)



GENERAL INFORMATION

In nature, the hide beetle *Dermestes maculatus*' primary function is to aid in the decomposition of carcasses. They have a special enzyme that helps them digest keratin unique to the dermestidae family. Hide beetles are cosmopolitan, distributed around the world in both tropical and temperate regions. Hide beetles are commonly used as "museum volunteers" to clean carcasses as part of the skeletonization processing for zoological specimens. Special care should be taken to contain the hide beetles and it is recommended that the dermestariums are located separate from collection areas.

SIGNS OF INFESTATION

Hide beetles damage museum specimens through feeding and there will be casts of their shed skins as they complete several molting stages on the way to maturity. They also can cause considerable structural damage to specimens or buildings when the larvae burrow pupal chambers.

FOOD SOURCES

Both the adults and larvae of hide beetles feed off a variety of animal-based foods, particularly raw skins, rawhide, and carcasses. The larvae, in particular, are voracious eaters. Food choices also include small bones, wool with high protein stains such as sweat or blood, fur, feathers, hair, stored tobacco, cured and dried meat, fish, stuffed animals, dead insects and rodents in wall voids, dry pet food, abandoned bird nests, and inactive beehives.



DIAGNOSTIC MORPHOLOGY

Adults:

- 7-9 mm long
- Antennae end in a 3 segmented club
- Dark brown to black dorsal plates.
- A unique feature is that the elytra have pointed tips.
- The pronotum is bordered by white hairs.
- The underside is white with lateral black spots



Immature Stage:

- Up to 12 mm long
- Densely covered with long or short black setae (hairs), giving a "fuzzy" appearance

LIFE CYCLE

The female hide beetle has the potential to lay hundreds of eggs, and these are laid singly or in small batches on the food source. These creamy white eggs can hatch in as little as 2-6 days. The larval period can be between 35 and 200 days, after several molts, the mature larvae will burrow into materials such as bone, wood, cork, plaster, tin, styrofoam, or into cracks and crevices to create their pupal chambers. The pupal period typically lasts 5 to 30 days. Adults can live 200 days and have the ability to fly.

CONTROL & TREATMENT

In case of an infestation, isolate the infested object and use the standard treatment recommended for that object. Vacuum surrounding areas thoroughly including cracks and crevices. Treatment of wood used for pupation may be required. For information regarding pest control methods, please refer to the resources on the museumpests.net website.

Fact Sheet: Hide Beetle

Adult image by Alain VanRyckeghem, Insects Limited, Inc.

Laval image by Joyce Gross, 2005, from www.bugguide.net