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Hide Beetle

Dermestes maculatus (De Geer)

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
- Broad, lighter colored band on dorsal and undersides

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 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 skeletization processing for zoological specimans. Special care should be taken to contain the hide beetles and it is recommended that the dermestariums are located seperate 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, particularily raw skins, rawhide, and carcasses. The larvae, in particular, are ferocious eaters. Food choices also include 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 dead beehives.

LIFE CYCLE

The female hide beetle has the potential to lay hundereds 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 35 to a couple hundred days. After getting their fill of food and going through several molting stages, the mature larvae will burrow into materials such as bone, wood, cork, plaster, tin, stryrofoam, or into cracks and crevices to create their pupal chambers. The pupal period typically lasts 5 to 30 days. Adults can live a couple hundred days and they can fly.

CONTROL & TREATMENT

In case of an infestation, isolate the infested object or food source and vacuum surrounding areas thoroughly, including cracks and crevices. There are a variety of pest management strategies to control infestations depending on the infested object. Different strategies may have to be taken to control the larvae if they are compromising a building structure with their network of pupal chambers. For information regarding pest control methods, please refer to the resources on the museumpests.net website.

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Information current as of 13 November, 2007

For more information visit www.museumpests.net

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Fact Sheet: Hide Beetle

Adult image by Alain VanRyckeghem, Insects Limited, Inc.