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The Lyctidae, Bostrichidae and Anobiidae families are only some of the wood pests that pest control operators need to consider.

Three Beetle Families Can Wreak Havoc in Wood

by J. Kenneth Grace

hree families of beetles are considered important pests of seasoned wood. These are the Lyctidae (True Powderpost Beetles), Bostrichidae (False Powderpost Beetles), and Anobiidae (Deathwatch Beetles).

In the pest control industry, these three families are often

referred to collectively as

"powderpost beetles." However, other beetles which are generally considered pests of stored food products also occasionally bore into wood and are capable of causing damage similar to that of the more common wood borers.

Wood boring by stored product

pests should come as no great surprise. After all, pests of stored products are found in all three of the major powderpost beetle families. In addition, these insects tend to have omnivorous feeding habits, and some possess mouthparts adapted to boring through tough seed coats.

According to Ebeling (1975, Urban Entomology, Univ. Calif. Div. Agric. Sci.), pantry, warehouse and granary pests reported to damage wood include the Drugstore Beetle (Anobiidae), Lesser Grain Borer (Bostrichidae), Larder and Hide Beetles (Dermestidae), Cadelle (Ostomidae) and Australian

Stored product pests occasionally bore into wood and are capable of causing damage similar to more common wood borers.

Figure 1. Damage by Dermestid beetles to (A) granary siding and (B) a wooden box used in a meat packing plant.

Spider Beetle (Ptinidae).

These insects may not actually derive any nutrition from wood, but bore through it either incidentally in search of food or purposely to excavate protected chambers in which the larvae can pupate. Damage is usually reported only with heavy beetle infestations in granaries (Fig. 1A), grain elevators, mills and packing plants (Fig. 1B).

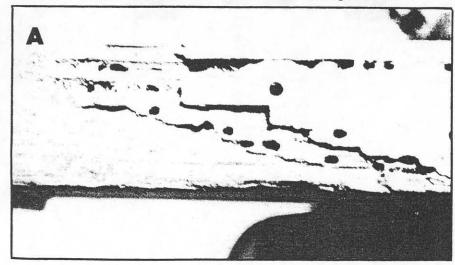
Damage to wood, however,

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can also occur in non-commercial situations. Ebeling mentions that the Hide Beetle, *Dermestes maculatus*, for example, has been known to bore pupal chambers in

hair brushes, tea chests and woodwork.

Kitchen examined
A kitchen cutting board and



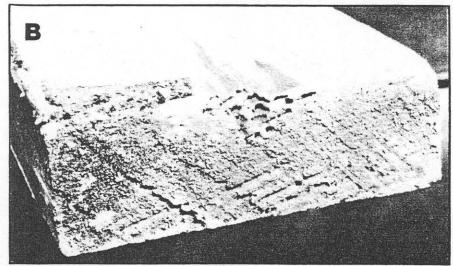
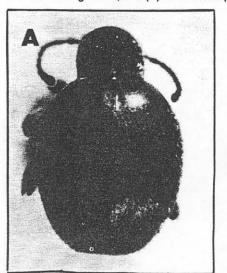
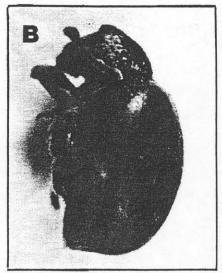


Figure 2. Damage by Spider Beetles (Ptinidae), showing (A) exit holes in edge of kitchen cutting board, and (B) laminated appearance of damaged end grain.





associated cabinetry that superficially appeared to have been damaged by Deathwatch Beetles (Anobiidae) were recently examined. Exit holes in the wood were slightly over one mm in diameter and round to slightly elliptical in shape (Fig. 2A).

Galleries of the same diameter extended no further than five mm below the surface, but ran parallel to the surface for distances up to 20 mm, and were packed with a coarsely powdered frass. Only the larger-celled springwood, or early wood, had been excavated, giving the damaged end grain a laminated appearance (Fig. 2B).

This damage was caused by Sphaericus gibboides, a Spider Beetle (Ptinidae) previously collected from spices, meal and seeds. Most members of this family have a distinctive globular abdomen and rather long legs, giving them a spider-like appearance. They are omnivorous scavengers and often infest stored products.

Both adult Spider Beetles (Fig. 3A-B) and larvae (Fig. 3C) were found in the galleries. The infestation seemed to radiate outward from a crack between the cutting board and a half-round molding attached to its front edge as a hand-pull. Although they may have been feeding on food debris which collected in this seam, tunneling of the surrounding wood by these "stored product pests" had certainly caused significant cosmetic damage.

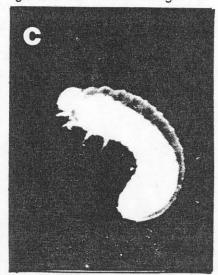


Figure 3. A Spider Beetle, Sphaericus gibboides, (Ptinidae) (A) top and (B) side view of adult beetle, and (C) larva. Both larva and adult are approximately 2 mm in length.

Original problem

Contaminated foodstuffs brought into the kitchen were probably the original source of the infestation. But, these beetles had apparently persisted in the cabinetry for some time, since no evidence of infestation could be found elsewhere in the kitchen

Pest control professionals should be aware of the possibility of wood damage by insects not normally found tunneling in wood. Obviously, correct identification of the pest is crucial. From the damage alone, the infestation of Spider Beetles might understandably have been misdiagnosed as "powderpost beetles," and fumigation recommended.

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Instead, the damaged cutting board was removed and replaced and the abutting cabinetry cleaned, filled and painted. This infestation could have been prevented simply by sealing the crack between the cutting board and the half-round molding affixed to its front edge to prevent food debris from accumulating in

It is not, of course, always possible to dig insect specimens out of infested framing and cabinetry, since most homeowners are not too pleased with pest control inspectors who do more damage than the insects themselves.

But, an alert inspector will try to accumulate as much information as possible and assess all aspects of the situation before drawing conclusions. Remember, with insects, there is always an exception to the rule. PC

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