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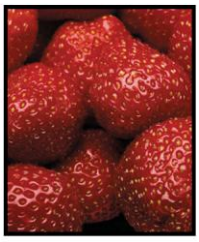

Powder Post Beetles
Families: Lyctidae, Anobiidae, Bostrichidae

The powder post beetles include wood boring beetles of at least three families, the Lyctidae or true powder post beetles (**Fig. 1**) , the Anobiidae or deathwatch beetles (**Fig. 2**), and the Bostrichidae (**Fig.** 3) or branch and twig borers (sometimes called false powder post beetles).

Fig. 1. An adult powder post beetle (Lyctidae). (Photograph University of Wisconsin – Madison, Department of Entomology)

Fig.2. An adult (*Euvrilletta pelatatus* syn. *Xyletinus pletatus*) Anobiid beetle (Anobiidae). (Photograph USDA Forest Service Archive, USDA Forest Service, www.bugwood.org)

Injury: The larvae of these beetles feed on cellulose in wood, and they can cause extensive damage to wood in structures and homes if conditions are suitable to them. Moisture plays a key role in attack from these insects. Losses are often heaviest in warm humid climates, but some species occur throughout the United States. In their feeding they reduce the wood to a fine powder (**Fig. 4**), not unlike talcum powder in consistency. Holes left by emerging beetles are about 1/8 inch in diameter and round. They are sometimes called "shot holes."

A tool such as an awl can be helpful in determining the extent of damage. If the awl pokes in easily and deeply, the wood may be severely damaged.

Life History: Eggs are deposited in cracks, crevices, pores or old emergence holes in wood, or in tunnels made by the females. A tiny larva hatches from an egg and burrows into the wood. It continues feeding and growing to maturity, when it burrows toward the surface and pupates. The adult emerges from the pupa and continues the tunnel to the surface. Adults leave the wood, mate, and then the females return to lay eggs. Exit holes and sawdust from beetles burrowing out are often the first symptom noticed.

Depending on the type of powder post beetle and the species, the life cycle may range from 3 months to 2 or more years. Some species are specific as to the types of wood they infest, while others are general feeders. However, they usually are either hardwood feeders, or softwood (conifer) feeders.

Management: The first step to management is deciding if there is an active infestation, or if you are seeing old damage. In an active infestation, look for borings accumulating in piles near holes or on the floor below, beetles crawling on the wood, or you may hear a ticking sound that is made by some larvae. If there is no active infestation, treatment is not needed.

For small infestations, removal of the infested item or replacement of infested wood may be all that is needed. In moist areas, pressure treated wood should be used.

If you have a severe infestation, professional control may be necessary. It may also be necessary when the infestation is very widespread, or is hidden behind paneled or plaster walls, or in other hard to reach places. If wood is badly damaged and its structural strength is impaired, it should be replaced. Fumigation may be necessary in some cases, either for individual pieces of furniture or an entire structure. Many pest control firms have fumigation facilities for items such as furniture.

Fig. 3. An adult "false powder post beetle" (Bostrichiade). (Photograph University of Wisconsin – Madison, Department of Entomology)

Fig. 4. Fine powder-like wood remains from powder post beetles. (Photograph University of Wisconsin – Madison, Department of Entomology)

Where excess moisture is a problem, all efforts to correct the cause should be undertaken. It does, however, take wood a long time to dry out, and reducing moisture may not be enough to completely control powder post beetle infestations.

Some powder post beetles lay their eggs in the pores of unfinished hardwood. Hardwood items are often finished with paint, shellac, varnish, sealer or wax and are therefore safe unless some bare wood is left exposed. If you find beetles emerging from finished hardwood, the infestation was most likely there before the wood was finished. Applying finish to wood can help deter infestations because the beetles are not able to deposit eggs on finished surfaces. However, if beetles are emerging from a piece of finished furniture or wood, the exit holes provide spaces for females to lay eggs again.

For small items, freezing or heating may offer a possible solution. CAUTION: Heating or freezing may have detrimental effects on some finishes. Placing small items in a deep freeze for 4 days or longer should kill larvae and eggs. A refrigerator freezer does not get the temperature low enough to give control. Heating in an oven until the internal temperature reach 120° F and keeping them at this temperature for 30 minutes also will control eggs and larvae.

Exposed wood under crawl spaces may be infested by beetles flying into the area and ovipositing on the wood. Where damage is severe, replace with pressure treated wood.

Species attacking softwoods or hardwoods indoors are usually brought into the house in wood or furniture which contains eggs or larvae. Remember the beetles attack either hardwoods or softwoods, but not both.

Use kiln dried wood in construction. Examine lumber for infestations before use. Repaint and refinish surfaces after a beetle emergence. Insects seldom reinfest dry refinished wood.

Borate insecticide (Disodium octaborate tetrahydrate) may be used by a pest management professional to treat structural wood.

Reprinted from *Powder Post Beetles:* Families: Lyctidae, Anobiidae, Bostrichidae. Prepared by Carolyn Klass, Sr. Extension Associate, Dept. Of Entomology, Cornell University, Dr. Larry Abrahamson and Dr. John Simeone, SUNY, Syracuse University. 4/86.

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