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Insects and Other Pests in Firewood

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Firewood is frequently a source of insects and other pests that can be carried into the home. Insects that emerge from firewood can be annoying and a source of anxiety. Most, however, pose no threat to people, furniture or the home. The indoor nuisance problems created by firewood insects can be diminished or eliminated by following the recommendations given in this publication.

Biology and Habits

Pests associated with firewood can be grouped into two categories: wood-boring insects and the non-boring insects, spiders and scorpions that seek shelter or food in the woodpile.

Wood-boring insects, such as beetles and wasps, are attracted to firewood as a place to lay their eggs. Larvae hatch from eggs laid by the females and then begin their feeding by boring through the bark or wood. After mature larvae finish feeding, they construct chambers where they transform into adults. Adults then emerge from the firewood by chewing through the bark to the outside.

Infestation of firewood by wood-boring insects is influenced by several factors, including moisture content, species of tree, season of the year when the wood was cut, whether the bark is still attached and how the firewood is stored. If firewood is cut green, its attractiveness to different wood-boring insects changes as the wood begins to dry out. Some wood-boring insects prefer freshly cut wood that is still green and in a moist condition. Other insects prefer partly seasoned wood, while a few boring insects require wood that is dry and well seasoned.

Longhorned and Metallic Wood-boring Beetles — The longhorned beetles, whose larvae are known as round-headed borers, have long antennae from ⅓ to twice the length of the body (Figs. 1, 2). The metallic wood-boring beetles have very short antennae and are often brightly colored (Fig. 3). Their larvae are referred to as flat-headed borers. These two groups of beetles are among the most common insects emerging from firewood inside the home. They will often congregate at windows where they are attracted to light.

Fig. 1. Longhorned beetle adult (typical).

Fig. 2. Longhorned beetle adult (some species resemble wasps).

Fig. 3. Metallic wood-boring beetle adults.

Firewood conditions that invite infestation by these borers vary considerably. Many borers prefer recently cut logs. Others attack logs that have been seasoned for several months. The manner of handling logs after they are cut has a decided influence upon whether they will be attacked. Each species lays its eggs during only a brief time period and attacks only a particular group of hardwoods or softwoods, which must be in just the right condition to attract egg-laying females. Therefore, the possibility of infestation by any particular species is relatively small.

Bark Beetles — These small (1/12 to 1/5 inch), dark brown or black cylindrical beetles (Fig. 4) seldom infest logs that are cut in the fall and seasoned. Such wood is usually dry and unsuitable for attack before the beetles are active. The beetles work in wood only while the moisture content is high and the bark is still on the logs. Some species infest only felled, weak or dying trees but others apparently attack healthy trees, especially during epidemic conditions.

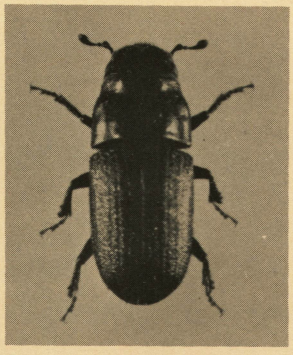

Fig. 4. Bark beetle adult.

Powderpost Beetles — Most of these small, flattened, black beetles prefer wood that has been cut several months. They show a decided preference for firewood that is cut either in the fall and slowly seasoned over winter or cut during the active season and dried rapidly. Occasionally they attack recently cut wood, but as a rule they are unsuccessful in establishing in it.

Horntail Wasps — These wood-boring wasps can be 1½ inches long and are dark in color with clear or amber tinted wings. Infested logs brought into the home in the fall can have wasps beginning to emerge about mid-winter. Females have an elongate structure projecting from the tip of the abdomen. This is called an ovipositor and is used to lay eggs in the wood of weakened or fire-killed trees. Although horntails may be annoying or arouse curiosity, they cannot sting and do no damage to the house or home furnishings.

Termites — It is highly unlikely that subterranean termites can infest a home from firewood brought indoors. Any termites in the wood will probably die before they can reestablish contact with moist soil. Dampwood termites have been transported in firewood, but again it is unlikely that they are a primary source of infestation in the home. Dampwood termites do not require contact with damp ground but do require wood with a high moisture content. Most firewood does not have a moisture content high enough to support dampwood termites.

Carpenter Ants — Firewood that has lain on the ground or old, rot-containing snags may harbor colonies of these large (¼ to ½ inch) black ants. The few ants brought indoors with firewood simply represent a nuisance and do not establish colonies or damage structural wood in a home. Of all the insects mentioned in this publication, however, carpenter ants have the greatest potential for infesting the home. **Therefore, wood that contains carpenter ants should never be transported from the forest or woodlot and stacked near the home.**

Transient Pests and Parasitic Wasps — Many flies, small beetles, wasps, spiders and sowbugs/pillbugs may hide or overwinter in firewood. These pests often warm up and leave the firewood several days after being brought indoors. Some wasps that emerge from firewood are parasites of the other wood-boring insects. The female wasps often have a long, slender ovipositer (Fig. 5), but it cannot be used to sting humans.

Spiders and Scorpions — This is the only group of pests inhabiting firewood that pose a serious health threat to people. Many different species of spiders may be associated with woodpiles. Most are harmless and are actually beneficial predators of insects. Of particular interest, however, are the black widow and aggressive house spiders. The venom of these two spiders is toxic and their bite can lead to serious health problems. The venom of the black widow spider is a neurotoxin that affects the nervous system and usually leads to severe nausea and breathing problems in people who have been bitten. The bite of the black widow can be life-threatening, but death rarely occurs.

The aggressive house spider has been identified only recently as a serious pest in Idaho. The symptoms of the bite are an initial small, insensitive hard area that soon expands to a reddened area 2 to 6 inches in diameter. Within 15 to 35 hours the area blisters and subsequently breaks to form an open, oozing wound. The lesion is very slow to heal and can be disfiguring. Fortunately, aggressive house spider bites are usually not life-threatening.

Fig. 5. Parasitic wasp adult.

Both the black widow and aggressive house spiders feed on insects that can be found in and around the woodpile, thus making it a desirable year-round habitat for them.

Scorpions, like spiders, may use a woodpile for shelter. Idaho has four species. These occur principally in the Snake River Basin of southern Idaho, but one species can be found along the Snake River as far north as Lewiston. Scorpions in a woodpile are usually found under the bark of logs where they search and feed on insects, spiders and other firewood inhabitants. The scorpions that occur in Idaho are not a serious health threat. Generally, their sting only results in localized pain and swelling unless the victim is hypersensitive.

For additional information on spiders and scorpions, including illustrations, see University of Idaho Current Information Series 414, *Spiders*, or Washington State University EB1466, *Aggressive House Spider.*

Detection

Many wood-boring insects push fine, sawdust-like particles out through holes in the bark. These particles, called frass, may accumulate in rather large piles (Fig. 6). This frass is often the only indication that the firewood is infested with wood-boring insects. Occasionally large borers such as the longhorned pine sawyers can be detected by the sound of chewing or grinding as they feed inside the log.

The presence of spiders in a woodpile can often be determined by the webs. Black widow spiders build irregular, unorganized webs, usually near the bottom of the woodpile. Aggressive house spiders prefer cool, moist areas where they build funnel-shaped sheet webs. However, not all webs are indications of significant problems because many harmless species of spiders will also live in a woodpile.

Prevention

The best way to avoid bringing pests into the home along with firewood is through a coordinated effort of prevention. Following are some suggestions for prevention.

Fig. 6. Sawdust residue is a typical symptom of the presence of wood-boring insects inside firewood.

Most insect-infested firewood logs are from trees cut in the spring and summer. Many wood-boring insects emerge from infested wood at this time and seek out freshly-cut logs as a place to lay eggs. Therefore, firewood should not be cut during the spring and summer.

Logs with bark on them should be cut in the late fall or early winter and then split and stacked. This allows the firewood sufficient time to dry out during the winter. Dry wood is not an attractive place for most insects to lay their eggs.

Split firewood should not be stacked against the house or garage but at least 3 feet away from any residential buildings. This permits better air circulation and hastens drying of the firewood. Firewood stacked against a house can contribute to moisture or insect problems in the building. Firewood should also be stacked off the ground to reduce wood rot and inhibit termites movement from the soil to the firewood. Ventilation is important in lowering the humidity and drying the soil, which reduces termite activity. Additionally, storing firewood under a shelter or covering it will maintain a dryer condition which in turn slows down development of wood-boring insects and usually prevents attactiveness to most egg-laying beetles.

After the firewood is cut and stacked, it can serve as a hiding place or hibernation site for a variety of insects and spiders. Before bringing firewood into the home, remove all loose bark and solidly knock logs together or drop them on a concrete surface to dislodge spiders, scorpions or other hiding pests. Given the possibility of encountering spiders in woodpiles, people should wear gloves when moving firewood to prevent accidental contact with these pests. Store firewood outside and bring it indoors only as needed, at most a couple of days supply at a time. Storing firewood in a warm home for more than several days allows insects hiding or developing in the wood time to emerge.

Do not spray any pesticides on the firewood under any circumstances. The pesticide will not penetrate the bark and kill the wood-boring insects. Additionally, firewood treated with pesticides may produce toxic fumes when burned.

For additional suggestions on storing and seasoning firewood, see University of Idaho Current Information Series 474, *Wood Storage.*

About the Authors

Marlin E. Rice and Craig R. Baird are Extension entomology specialists at Moscow and Parma, respectively. Joseph P. McCaffrey is associate professor and entomologist at Moscow.

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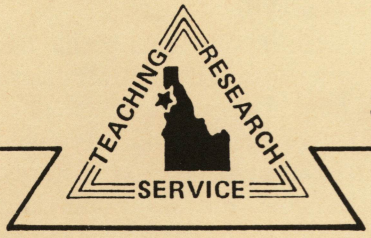
Figs. 4 and 6 courtesy of the Forest Service Collection, National Agricultural Library.



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