

# THE GOLDEN BUPRESTID



**A Wood Boring Beetle**



OREGON STATE UNIVERSITY

**EXTENSION  
SERVICE**



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## A Wood-Boring Beetle

Oval shaped holes appearing in siding, flooring, or other parts of a structure indicate activity of one of the beetles belonging to the family Buprestidae and commonly referred to as metallic wood borers. The first three body segments behind the head of the immature or larval stage are flattened and enlarged. From this characteristic they derive their common name, flat-headed borers.

One of the most familiar and destructive of this group of insects is the golden buprestid, *Buprestis aurulenta*. The adult beetle is iridescent, golden-green or blue-green in color, and about three-fourths of an inch long. When full grown the whitish larva is about one and one-half inches long. Across the wide, flattened segments of its sharply tapered body it has a breadth of about three-eighths of an inch.

Adult beetles lay eggs on trees, preferably those that are dead or dying or recently cut trees with the bark still on them. They are attracted to pitchy wood and may lay eggs on fire scars. The eggs are sometimes laid in cracks of freshly sawed lumber and less frequently on older, dry or partially dried structural material. There is some indication that beetles may occasionally lay eggs on older, dry, unpainted or untreated wood. Thus, it is possible for emerging beetles to reinfest a building. Such reinfestation, although possible, is probably a rarity.

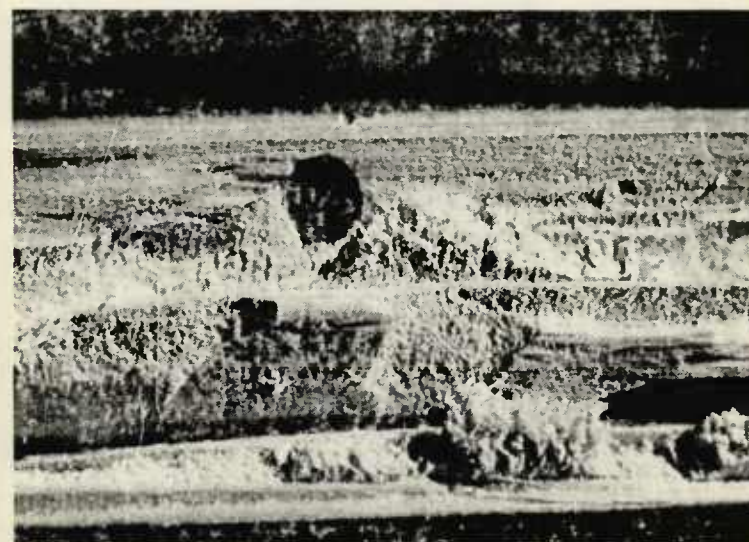
Under natural conditions adult emergence appears to occur with greatest frequency during the spring and early summer months. In buildings, emergence is most frequently noted from late fall until late spring. Adult beetles live for a relatively long time, about three to five months.



Typical Golden Buprestid larva resembles other flatheaded borers, but is the only species considered a serious structural pest in Oregon.



Oval exit hole is made by adult beetle, and usually is the first indication of damage.



Larvae may eat wood for 20 years, leaving a tunnel up to 15 feet long.

Upon hatching from the eggs the larvae bore into wood, excavating a mine which enlarges as the larvae grow in size. The mines are oval in cross section with a width of about three-eighths of an inch. They vary in length from 3 to 15 feet from the point where the eggs hatch to the point where the larvae reach their full growth. The tunnels are packed full of borings and excrement left by the larvae. The powdery borings left by golden buprestids are an aid in distinguishing their damage from that of the round-headed borers occasionally found in lumber whose borings consist of mixed fibrous and powdery material.

Under natural conditions out of doors, larvae usually complete their development in from two to four years. Larvae mining in various wood products may require a much longer period for their development. There are authentic records of beetles emerging from wood products, including furniture and lumber used in construction of houses, under circumstances in which eggs must have been deposited at least 15 to 20 years earlier. Most of the mining by larvae in houses and all of the mining in finished products is due to infestation prior to manufacture. Damage to underpinnings of buildings, however, may come from infestations by beetles emerging from lumber used in construction of the building or from firewood in the basement. As previously mentioned, this type of reinfestation is probably not a significant factor.

Douglas-fir is preferred by the golden buprestid, but it has been found in several species of pine, spruce, and fir. The insect has also been found in western redcedar.

When the larvae reach full size they go into a resting or pupal stage during which they change into beetles. This process occurs in oval chambers known as pupal cells. These cells are usually quite near the surface of the wood. After transformation to beetles is completed, they eat their way out of the wood, leaving a small, oval exit hole. This is often the first evidence of infested wood. Emerging beetles usually fly away and do no further damage to the wood from which they came.



# Control Measures

Once the work of the golden buprestid is detected in a building, there is little in the way of direct chemical control that is feasible. Plugging the holes and refinishing the damaged surface is an obvious remedy. Under some conditions it may be practical to paint, varnish, or otherwise treat wood that may be exposed to possible reinfestation by the golden buprestid.

Kiln drying kills all stages of the insect that may be in the wood. Damage may sometimes be avoided by not using lumber to which bark is still attached. Infestation is less likely to occur in lumber made from logs which have been removed from the woods soon after cutting. Infestations more frequently occur in lumber cut from fire killed or weakened trees.

The best time to control these beetles is at some stage in the manufacture or processing of lumber, before it becomes part of the finished structure. Once infested wood is used in a building, prospects of keeping the insects from completing their development are poor. However, infestations are seldom extensive enough to cause serious structural weakness.

To retain a rustic appearance, it is sometimes desirable that bark remain on material used in building log cabins, foot bridges, etc. Materials used for such purposes should be cut while the sap is down and piled under cover in a manner that allows free circulation of air. The material will be at least partially seasoned by the time beetles are flying and depositing eggs in the following year, and will be less attractive for egg deposition. It should not be inferred from this, however, that the wood will remain absolutely free from attack. The use of wood preservatives will give some protection and discourage egg laying by female beetles. The value of insecticides as a means of control of these beetles has not been established.

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