



Wood Boring Insects

Wood boring insects are a diverse group that spend most of their lives inside the wood of trees or logs. The majority of borers are beetles, but certain wasps and moth caterpillars are also well-known borers that are common in Idaho forests. Wood borers can damage trees and logs through their tunneling, but they can also transmit stain and decay fungi which can affect the value of logs delivered to lumber mills. In Idaho's natural forest environment, wood borers act as nutrient recyclers, and usually only attack stressed, damaged, or freshly downed/cut trees. In other words, they are often found in trees already stressed or killed by something else. It is when landowners manage their forests for wood products that borers become a management concern.

Identification

Borer-infested trees may have evidence of woodpecker activity, and will often have large galleries (up to 3/4" under the bark) packed with frass (boring dust or shavings). Various species of longhorned beetles (called roundheaded borers as larvae) (**Figure 1**) and metallic wood borers (called flatheaded borers as larvae) (**Figure 2**) are most commonly encountered. The photos show examples of common species and there are many other similar looking borers in Idaho (130 species of longhorned beetles and 85 species of metallic wood-boring beetles). Other types of borers in Idaho, such as horntail wasps (also called wood wasps), clear winged borers, and ambrosia beetles cause additional unique signs and symptoms that are detailed on the back of this page.

Life Cycle

Wood borers usually take one or more years to develop from egg to larva to adult and two years is common for many species. Metallic and longhorned borers lay eggs in or on the bark of dying trees or logs in the spring or summer. Larvae hatch and chew their way into the phloem (inner bark). The following spring, the larvae begin to tunnel in the sapwood. Depending on the species, the larvae may tunnel into the heartwood as well. However horntail wasps insert eggs into the wood with their ovipositor, an egg-laying appendage that is often mistaken for a stinger. Borers develop within their host trees and emerge as adults in the spring or summer.

Management

Wood borer management is usually only needed in order to minimize damage to trees that will be used for wood products. Promoting tree health through thinning and proper silviculture, alleviating tree stress, and removing wind thrown trees can reduce wood borer damage. In salvage operations, damaged trees should be removed promptly. Harvested logs should be transported to the lumber mill as soon as possible and processed promptly. Mills can implement protective measures, such as keeping log decks wet to minimize damage due to tunneling, sap decay and blue stain.

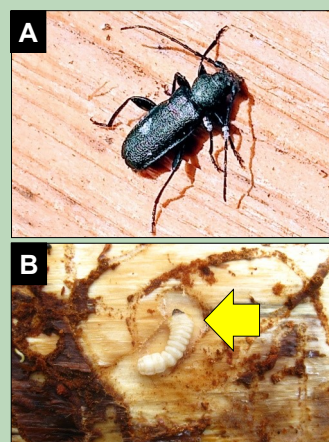


Figure 1. Longhorned beetle adult (A) and larva (B) (also called a roundheaded borer).

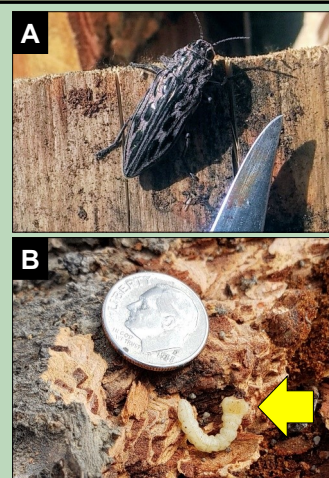


Figure 2. Metallic wood boring beetle adult (A) and larva (B) (also called a flatheaded borer).


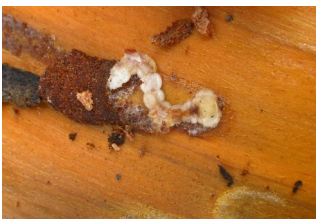
















For more information:

IDL website: <https://www.idl.idaho.gov/forestry/insects-and-disease/>

U.S. Forest Service Management Guide: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5188592.pdf



FOREST PEST FACT SHEET

BORER FAMILY (ADULTS)	ADULT IDENTIFICATION	LARVAE	LARVAL IDENTIFICATION	SIGNS OF INFESTATION	GALLERY/SIGN
Metallic wood Borers 	Distinctive almond shape, short antennae, often bright colors		Flattened segments behind head, no visible legs	Winding galleries filled with fine frass 	
Longhorned Beetles 	Long antennae, often longer than body		Prominent jaws, segments behind head not flattened, no visible legs	Coarse wood shavings on bark surface 	
Horntail Wasps 	Large wasp (>1"), ovipositor looks like stinger, cannot sting		Well defined head capsule, three pair of legs visible spine on posterior end	Round exit holes 	
Clearwinged Borers 	Moth that mimics wasp, wings transparent		Well defined head capsule, visible legs	Large pitch mass, pupal skin upon exit 	
Ambrosia Beetles 	Tiny adults (~1/8"), rarely seen outside wood		Small size, well defined head, no visible legs, dark-stained galleries in the wood	Fine, flour-like boring dust on bark 