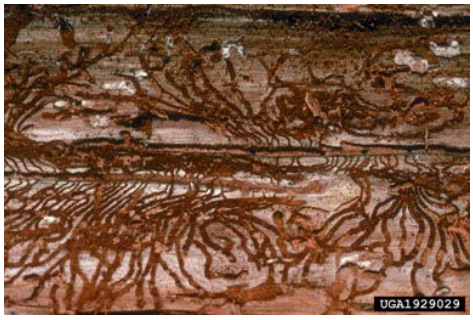
Ips Bark Beetles

IBB041017

IMPORTANCE: Pines of all ages and sizes are susceptible to Ips bark beetles *(Ips grandicollis, Ips calligraphus and Ips avulsus)*. They usually attack injured, stressed, dying or recently felled trees, and logging debris. They often kill only a few trees in a given spot, but under certain conditions, they can become epidemic and destroy hundreds of trees. Ips beetles vector blue stain fungi that accelerate tree mortality or further degrade infested timber.



IDENTIFICATION: Ips beetles are easily recognized by a scooped out rear end surrounded by spines. Black to reddish brown, adults vary in size from 3/32 to 1/4 inch in length. Adults not fully mature found under the bark are usually yellowish to light brown. Fully grown larvae and pupae are yellowish white and vary from 3/32 to 3/16 inch in length. Eggs are very small and white.

SIGNS OF ATTACK: Infested trees usually have numerous white to reddish brown pitch tubes on bark plates about the size of a wad of gum. In trees of low vigor, pitch tubes may be lacking and the earliest sign will be reddish boring dust in bark crevices at the tree's base. Brown needles on selected stems or in the entire crown is a common tree symptom of an Ips attack.

HABITS: Adult beetles are attracted to stressed or dying trees. They bore holes through the outer bark into the cambium layer. The adult beetles create "Y" or "H" shaped galleries in the inner bark parallel with the grain of the wood. These galleries are generally free of boring dust. The distinct gallery pattern is used for identification purposes even when larvae and adults are absent. Eggs are laid singularly in small egg niches cut along the main tunnel. Larvae hatch and feed in distinct lines. Larvae feeding tunnels are usually filled with boring dust. Larvae mature, pupate and emerge as adults in 25 to 40 days depending on the temperature. Emerging adults may or may not attack nearby trees.

CONTROL: Predators, parasites, diseases, and starvation will eventually control the beetle's population. These biological factors, changes in weather conditions, and proper management practices can reduce Ips attacks and timber losses. Maintaining tree vigor is the most practical management recommendation. For large infestations, a salvage cut of the affected area in the stand may be warranted. Spraying insecticides on trees that have been recently attacked and on adjacent trees next to infested ones is also a control option. An insecticide application is not practical for pines in a rural forest stand. Scattered mortality in forest stands may not generally warrant control measures.

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