

# Oystershell Scale

Tiny, armored scale on many hardwoods

**Name and Description**—*Lepidosaphes ulmi* (Linnaeus) [Homoptera: Diaspididae]

Oystershell scale is believed to have arrived in North America in the 1700s with European settlers. It now has a worldwide distribution and is one of the more common armored scales on hardwoods in the Rocky Mountain Region. Full-grown female scale coverings are comma-shaped and resemble miniature oyster shells attached to bark on twigs or branches (fig. 1). Mature scales are gray or brown, range from 1/16-1/8 inch (1.5-3 mm) long, and have parallel, arcing ridges. Heavy infestations can impart a gray, mottled look to the bark (fig. 2). Older scales can stay attached to the tree for several years. Pale yellow crawlers are tiny and nondescript. Tiny adult males are winged and rarely seen.



Figure 1. Oystershell scales and eggs revealed under a lifted scale covering. Photo: Whitney Cranshaw, Colorado State University, Bugwood.org.

**Hosts**—Oystershell scale has been recorded on over 125 species of plants, mostly hardwoods, and is most commonly found on aspen and other poplars, ash, maples, willows, and lilac.

**Life Cycle**—The insects overwinter in eggs beneath the female scale covering. Upon hatching in May or June, the young insect crawls about looking for a suitable site to begin feeding. Some may be carried by the wind to other trees at this time. This stage is called the crawler stage, and the young are only mobile for a few days. Once settled down to feed, they develop the waxy shell that covers their body. The scales have relatively long mouthparts for their size, and they feed on the contents of individual plant cells. There is one generation per year in the gray form of oystershell scale, with winged males appearing in summer and mating with sessile females. Two generations are reported from the brown race of oystershell scale, but this form of the insect is less common in the Rocky Mountain Region.



Figure 2. Oystershell scale infestation on aspen. Photo: Whitney Cranshaw, Colorado State University, Bugwood.org.

**Damage**—Heavy infestations of this insect can encrust entire branches and cause branch dieback and can kill plants.

**Management**—Natural enemies are generally adequate to reduce populations of this insect. Heavy infestations may warrant management on high-value trees.

Oystershell scales can be physically removed from branches and stems with a plastic dish scrubber, but be careful not to damage thin bark on the trees. Horticultural oil or insecticide application can also give good control if timed properly. Insecticides are only effective against the crawler stage, which normally lasts a few days but may be extended over weeks. Insecticide control is best targeted at the beginning of the emergence period and requires monitoring for the presence of crawlers.

- 
1. Cranshaw, W.S. 2008. Oystershell scale. Extension Fact Sheet No. 5.513. Fort Collins, CO: Colorado State University, Cooperative Extension. 2 p.
  2. Shour, M. 2007. Shucking oystershell scale. Iowa State University Extension News. Ames, IA: Iowa State University 2 p.