

**Host:** Grand fir, with preference for trees that are windthrown, drought-stressed or infected with root disease

**Life Cycle:** Adult beetles emerge from trees and fly between July and August. Adults attack trees by boring under the bark and excavating a horizontal gallery, laying eggs along the margins. Eggs hatch into larvae that feed on the phloem until cold winter temperatures initiate dormancy. They resume feeding in the spring before emerging as adults later in the summer. Fir engraver beetles complete one generation per year.

**Identifying infested trees:**

- Light brown boring dust accumulating in bark crevices
- Distinct galleries etched into inner bark
- Presence of brown adult beetles that are approximately the size of a grain of cooked rice, or presence of small white larvae (less than ¼ inch)
- Crowns of infested trees may be green. Trees often turn red after beetles have left the tree.

**Damage:** Fir engraver beetles feed in the inner bark. They typically mass attack and kill trees outright but occasionally, small numbers of beetles attack trees and cause top kill, branch dieback, or patches of damage that the tree successfully heals over.

**Treatment:**

- PROMOTE non-host species such as ponderosa pine and western larch.
- THIN STANDS to reduce competition and promote individual tree vigor.
- BROOD TREE REMOVAL - Identify and remove beetle-infested trees. Trees may appear healthy but closer inspection will reveal boring dust in bark crevices.
- REMOVE or DESTROY infested material. Beetles will continue to develop in logs and firewood and, if left on site, can emerge the following summer to attack nearby trees. Preemptively remove windthrown trees to limit host material in stand.

**Additional Resources:**

- [FIDL](#)

- [Management Guide](#)