## **Bud and Shoot Insects**

Bark Moths Dioryctria spp.

and

Pitch Moth Synanthedon spp.

**Hosts:** Piñon, ponderosa pine, and occasionally Douglas-fir and true fir

Symptoms/signs: Pitch moth attacks appear as large, ugly

masses of pitch that form at the wound site. Bark moth attacks typically produce less pitch.

**Effects:** Larger branches, limbs, and trunks of young trees are attacked. Repeated attacks can seriously weaken and kill branches. The most severe damage is to trees under 6 m, especially in urban areas. The insects are rarely a problem on larger trees or in the forest environment.



Figure 165. Damage to piñon caused by bark moths (Dioryctria) at Sunset Crater NP, Arizona.

**Biology:** Pitch moths require 2 years for one generation to mature, overwintering as larvae each winter. Bark moths require only 1 year for a generation to mature, overwintering as eggs or larvae. Eggs are laid in bark crevices or near mechanical wounds on the bark. Newly hatched larvae tunnel under the bark forming



Figure 166. Damage caused by pitch moth.

irregular galleries or elongated gouges in the sapwood. Pitch moth larvae feed on pitch the tree produces in response to their tunneling. Oozing pitch masses 25 to 75 mm in diameter cover entry holes and conceal larvae and their destructive tunneling. Full-grown larvae are 15 to 25 mm long, dirty white, yellow, orange, green, or light brown. Bark moth larvae feed on the inner bark and when full grown, are marked with rows of dark spots.

**References:** 9