

# Foliar Diseases

## **Black Leaf Spot** *Marssonina populi* (Lib.) Magnus

**Hosts:** Aspen and cottonwood

**Symptoms/signs:** Black leaf spot, caused by several species of *Marssonina* is common on aspen and cottonwood. Small brownish spots appear on infected leaves in late July and early August. The spots later enlarge and turn blackish, are of various sizes and irregular in outline, and have a yellowish to golden border. Infected leaves fall prematurely.

**Biology:** Primary infection occurs soon after leaves emerge in spring, from spores produced on twig lesions or from infected fallen leaves. Additional spores are produced on newly infected leaves, which initiates the repeating cycle of disease that continues with wet weather until leaves fall. Symptoms intensify and seem to ascend trees as the season advances. *Marssonina* spp. survives the winter as tiny stromata in fallen leaves and twig lesions.

**Effects:** Severe outbreaks may cause foliar browning in midsummer and nearly complete defoliation by late August. Regrowth follows in late summer and early autumn, and twig dieback may follow in winter because late season shoots lack normal cold hardiness. Defoliated trees produce less wood for 1 or more years following an outbreak.

**Similar Insects and Diseases:** Several agents can cause premature defoliation of aspen including aspen tortrix, western tent caterpillar, melampsora rust, frost, and drought. The irregular brown to black blotches on leaves distinguish black leaf spot from the other agents.



Figure 175. Black leaf spot of aspen caused by *Marssonina populi*.

**References:** 39, 93