



Dwarf Mistletoes

Arceuthobium spp.



HOSTS:

Lodgepole pine, Douglas-fir, larch, limber pine

DAMAGE: DEFORMITY, EVENTUAL MORTALITY

Dwarf mistletoe plants draw nutrients from the tree and reduce growth. Severe infections can cause top-kill or ultimately kill the entire tree. Deformity resulting from brooms can impact timber value.

Ecology

Dwarf mistletoes are native, parasitic plants that grow on coniferous trees. There are four dwarf mistletoe species in Montana that each infect a particular host. Crossover between species is known to occur, but generally dwarf mistletoes are host-specific. Dwarf mistletoe causes bushy growths on branches called "witches' brooms". Brooms are lush and healthy while the rest of the tree competes for water and nutrients. Over time, the parasite starves the tree above the broom, often causing top-kill and thinning in the canopy. Dwarf mistletoe plants produce seeds that are explosively shot up to 50 feet away in the fall, infecting nearby regeneration. For this reason, dwarf mistletoe spreads more quickly in uneven-aged stands. Although damaging to trees, witches' brooms can benefit wildlife by providing food and shelter.



Witches' brooms in Douglas-fir



Lodgepole dwarf mistletoe

Identification

- Witches' brooms on branches
- Small mistletoe plants growing on infected branches (size and color vary by species)
- Tapered branch swellings, often with mistletoe plants growing from swollen areas

Management

- Clear a buffer strip of all host trees at least 30 feet from any infected tree(s).
- Remove infected trees from overstory within 7-10 years if susceptible species are regenerating in the understory.
- Promote non-host tree species (Note that each dwarf mistletoe is specific to a particular tree species.) Shift stand composition to non-host species.