

Juniper Mistletoe

Minor effects on junipers

Pathogen—Juniper mistletoe (*Phoradendron juniperinum*) is the only member of the true mistletoes that occurs within the Rocky Mountain Region (fig. 1).

Hosts—Within the Rocky Mountain Region, juniper mistletoe is found in the pinyon-juniper woodlands of southwestern Colorado (fig. 2) and can infect all of the juniper species that occur there.

Signs and Symptoms—Juniper mistletoe plants are generally densely branched in a spherical pattern and are green to yellow-green (fig. 3). Unlike most true mistletoes that have obvious leaves, juniper mistletoe leaves are greatly reduced, making the plants look similar to, but somewhat larger than, dwarf mistletoes. However, no dwarf mistletoes infect junipers in the Rocky Mountain Region.

Disease Cycle—Juniper mistletoe plants are either male or female. The female's berries are spread by birds that feed on them. As a result, this mistletoe is often found where birds prefer to perch—on the tops of taller trees (fig. 1), near water sources, etc. When the seeds germinate, they penetrate the branch of the host tree. In the branch, the mistletoe forms a root-like structure that is used to gather water and minerals. The plant then produces aerial shoots that produce food through photosynthesis.

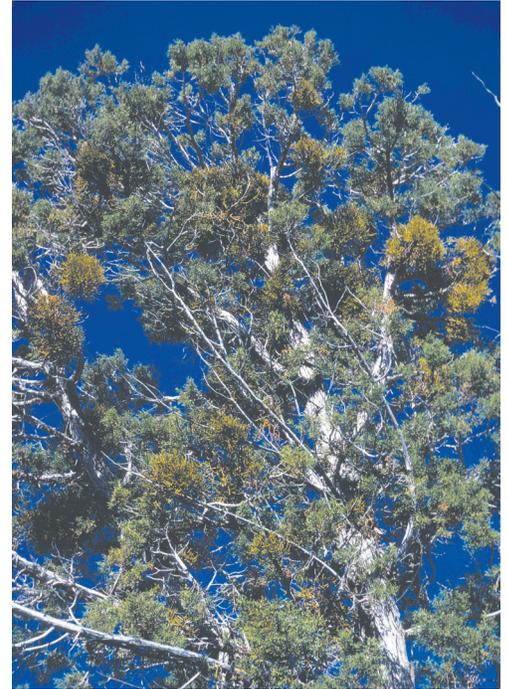


Figure 1. Juniper mistletoe plants on one-seed juniper in Mesa Verde National Park. Photo: USDA Forest Service.

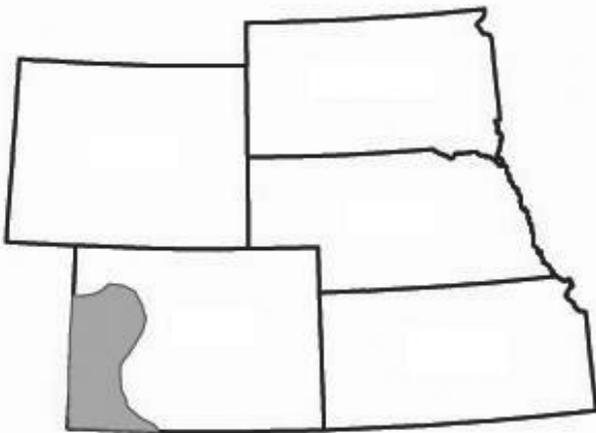


Figure 2. Distribution of juniper mistletoe in the Rocky Mountain Region (from Hawksworth and Scharpf 1981).



Figure 3. Closeup of juniper mistletoe on juniper branch. Photo: Robert Mathiasen, Northern Arizona University.

Impacts—Impacts associated with juniper mistletoe are generally minor. While the true mistletoe plants do receive some small proportion of their carbon nutrition from their hosts, they are considered only “water and mineral” parasites. Unlike dwarf mistletoes, true mistletoes produce most of their own food through photosynthesis. However, during periods of drought stress, when the host trees have shut down their transpiration to conserve water, juniper mistletoe plants continue to transpire, causing further drought stress on the host.

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Management—Juniper mistletoe is generally not considered worth managing as the impacts are minor. If management is desired, infected branches can be effectively pruned because juniper mistletoe requires a living host to survive. If mistletoe shoots are removed, they will resprout.

1. Geils, B.W.; Cibrián Tovar, J.; Moody, B., tech. coords. 2002. Mistletoes of North American conifers. Gen. Tech. Rep. RMRS-GTR-98. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 123 p.
2. Hawksworth, F.G.; Scharpf, R.F. 1981. Phoradendron on conifers. Forest Insect and Disease Leaflet 164. Washington, DC: U.S. Department of Agriculture, Forest Service. 7 p.

