

ASK A MASTER GARDENER



Chris Rusch
Master Gardener

Question: What can you tell me about the origin of the tradition of hanging mistletoe during the holiday season? Is mistletoe native to our area?

Answer: There are hundreds of species of mistletoe around the world. There are two types of mistletoes that are found in our forests in Douglas County – dwarf, and true or leafy mistletoes.

Dwarf mistletoes are flowering plants that form shoots on the branches or stems of the host tree. The shoots are yellow, purple, brown or olive green with small scalelike leaves that are usually indistinguishable from the stems. These plants can cause significant health issues in their host trees including growth loss, distortion and top kill.

They only grow on conifers and are generally species-specific or infect closely related species. This means a dwarf mistletoe growing on a ponderosa pine will not infect a white fir, only other ponderosa pines. The major hosts in our area are ponderosa pine, Douglas-fir, true firs and western hemlock.

Dwarf mistletoe is important for wildlife, supplying shelter and nesting sites for threatened animals such as spotted owls, pine martins and goshawks.

The true mistletoes of the Pacific Northwest are all members of the genus *Phoradendron*, and are associated with Oregon white oak and a few other



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Mistletoe fruits are white, sticky and globose berries. These berries are produced in winter and are an important food source for many birds.

hardwoods. These are the mistletoes harvested for holiday smooching.

Oak mistletoe (*Phoradendron villosum*) is a native plant, which has co-evolved with other animals and plants in oak woodlands. The ripe mistletoe fruit provides critical winter food for birds like American robin, cedar waxwing, Townsend's solitaire and the declining western bluebird.

True mistletoes are a perennial plant, with oppositely arranged olive-green leathery leaves. The stems are hairy and green to gray. In the summer, tiny yellow 3-petaled flowers are born in axillary clusters. The fruits are white, sticky and globose berries.

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This survival strategy is referenced in the genus name *Phoradendron*, derived from the Greek word "phor," meaning "a thief," and "dendron," meaning "tree." Mistletoe grows in round clusters, giving it the appearance of sprouting magically from tree branches.

The most conspicuous true mistletoes infect

oaks in Western and Southern Oregon. Typically, oak mistletoe does not kill its host. However, severe infestations can cause growth loss, branch dieback and tree mortality. Mistletoe weakens trees most during periods of stress, such as drought.

Host tree branches often develop large swellings at the point of mistletoe attachment. Branches are weakened

at the attachment point and often break in storms. Mistletoe can be an aesthetic problem, since the large growths can be unsightly.

Oak mistletoe has a fascinating life cycle, beginning with its fleshy and sticky white berries. The berries are produced in winter and are an important food source for many birds. The birds spread the sticky seeds through their droppings or by wiping the fruits from their beaks onto branches.

The berries then adhere to the wood and germinate. The plant sends a root-like feeding organ called haustoria into the tree's tissue where it absorbs water and nutrients.

In addition to supporting birds, the flowers attract a variety of pollinators and it is a larval host plant for the Great Purple Hairstreak butterfly.

Kissing under sprigs of mistletoe tied with a red ribbon and hung

in doorways, is a well-known holiday tradition, but this little plant's history as symbol dates back thousands of years.

The tradition of kissing under the mistletoe started in ancient Greece, during the festival of Saturnalia and later in marriage ceremonies, because of the plant's association with fertility. During the Roman era, enemies at war would reconcile their differences under the mistletoe, which to them represented peace.

In the 11th century Norse culture, the mistletoe plant was a sign of love and peace. The story goes that the goddess Frigga lost her son, the god Baldur, to an arrow made of mistletoe. After his death, she vowed that mistletoe would kiss anyone who passed beneath so long as it was never again used as a weapon.

In some versions of the tale, Frigga's tears then turned into mistletoe berries, which brought Baldur back to life, prompting Frigga to declare mistletoe a symbol of love. It wasn't until the 18th or 19th centuries, though, that the British started hanging mistletoe as part of New Year's celebrations.

Mistletoe is a symbol of renewal and peace in many cultures and provides food and habitat for our animal neighbors. So, kiss away, but please keep in mind: mistletoe berries are poisonous to humans.

Do you have a gardening or insect question? Contact the Douglas County Master Gardeners at douglasmg@oregonstate.edu, 541-672-4461 or 1134 SE Douglas Ave., Roseburg. Master Gardeners are trained volunteers who help the OSU Extension Service. serve the people of Douglas County.