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Mistletoe might well be medicinal

This article is in response to a question by one of our readers:

First of a two-part series

In the southwestern desert during the winter season when certain trees and shrubs having shed their leaves, they may reveal high in their branches great masses of brownish-green stems which, when viewed from a distance, resemble large swarms of bees. The plants festooned with this apparition are usually leguminous in nature — such as ironwood, mesquite, catclaw, paloverde, dalea and sometimes creosote bushes, condalia, introduced tamarisks and other flowering plants. This peculiar pendulous mass of slender stems (two to five feet in diameter) with leaves reduced in size, and scale-like is referred to as Desert Mistletoe.

In the southwestern desert this semi-parasitic plant is a ruthless killer and does not possess the same botanical curiosity with seasonal romantic connotation held by northern and eastern residents of the United States. The genus name *Phoradendron* comes from the Greek phor (a thief) and dendron (a tree) in reference to the semiparasitic growth on trees — literally speaking “a tree thief.” The species name *Californicum* is for the state of California, a vernacular name for it being California Mistletoe.

Mistletoe figures prominently in mythology and figures still in traditional beliefs and usages of many countries. The Druids held it in great reverence and believed that its possessor was protected from all evil. Scandinavian legend has it that Balder the Fair, the god of peace, was slain with an arrow made of mistletoe and later, at the request of other gods, was restored to life with the mistletoe given into the keeping of the goddess of love, and it was ordained that everyone who passed under it should receive a kiss, to show that the branch had become an emblem of love and not of hate.

In Brittany the plant is called Herbe de la Croix, because according to an old legend, the cross was made from its wood, on account of which it was degraded to be a parasite.

The dried leaves and young twigs are attributed to have medicinal qualities in the treatment of epilepsy, convulsions, delirium, hysteria, neuralgia, nervous disability, urinary disorder and heart disease. It was also considered an

aphrodisiac and a panacea, and recent rumors persistently advance the theory as it being an agent in the treatment of cancer.

There are more than 900 known species of mistletoe in the world, and all of them mean business, although there are many which we, accustomed to *Phoradendron*, can hardly recognize as a relative. When the plant becomes established on a suitable host, it steals the moisture, the minerals and anything else it needs with such an insatiable appetite that the portion of the branch beyond the point of attack starves and dries up. It contributes nothing to the welfare of its host, reducing it to an impoverished victim to disease, insects and finally death. If it should survive, despite infection, its beauty is marred and usefulness impaired.

Some trees are exceedingly resistant to infection and live on for years in cohabitation with the mistletoe. The tenacity of this parasite was revealed in a recent study of an incense cedar that was calculated at 425 years of age and that of the mistletoe growing on it at 409 years. Since it possesses chlorophyll of its own, it can demonstrate its ability to survive, should the host plant's sap stream becomes insufficient or not to its liking, by manufacturing its proper food.

The desert ironwood, *Oleña tesota*, is quite frequently infested with desert mistletoe; and in combating the site of invasion, exudes a gummy substance that pushes the mistletoe seed away from the limb surface. The exudate eventually hardens and drops to the ground, carrying with it the young mistletoe plant. Some of these sites of invasion can result in great fusiform swellings due to the activity of the mistletoe roots within, and become quite grotesque, tumor-like malformations two- to three-feet in diameter and weigh from 400 to 800 pounds. With some species of mistletoe and their particular host plants, these swellings and unusual forms produce “flowers of wood,” resembling an open flower with the periphery breaking up into ramifying coral-like formations. Others produce burls of high decorative value.

In Australia, there is a type of mistletoe that grows on tree roots, giving to a type of “wood flower” similar to the one just described. To pick these “flowers” one needs pick, shovel and saw.