

Native Plants of Deer Canyon Preserve

Ponderosa Pine: December 2009



Ponderosa pine is found only in the higher elevations of Deer Canyon Preserve. But it grows in so many areas throughout the western United States that it is generally recognized as the most common and widespread of all our western conifers. The famous Scottish botanist David Douglas first discovered this species in Washington in 1826. Its scientific name, *Pinus ponderosa*, is identical to its common name; *Pinus* is the Latin word for pine and *ponderosa* is Latin for large (or ponderous). This name is

particularly appropriate as ponderosa pine is the tallest of all North American pines. The New Mexico state champion stands 129 feet tall, however ponderosa pines in other parts of the West grow more than 100 feet taller than that. It is also a relatively long-lived pine, sometimes reaching over 650 years old.



The bark of young trees is rather dark, but when the tree approaches 100 years of age the bark typically lightens and forms distinct yellow-orange plates that often have the appearance of jigsaw puzzle pieces. The bark is thick, fire resistant, resinous, and often has a pleasant aroma reminiscent of vanilla. Branches, which are typically lacking on the bottom portion of older trees, have dark colored twigs that bear needles in clusters of three. The long, yellow-green needles grow up to ten inches in length.



Male cones can be found in short dense clusters at the tips of some twigs in the spring. These small yellow or orange cones release their pollen in May and quickly wither and fall from the tree. Female cones, located near the tips of other twigs will receive the wind-blown pollen and begin a slow maturation process that takes over 16 months. During this developmental period the sperm carried inside the pollen grains fertilizes egg cells, then embryos develop surrounded by food reserves forming mature seeds ready for release in the fall of the second year. By this time the overall cone will have developed dozens of somewhat flexible woody scales and grown to an overall size of three to six inches. Each scale will bear a short prickle at its tip that is typically curved downward.



One might expect that such a common tree would have been used in many ways over the years and ponderosa pine does not disappoint. Native Americans used this tree for food, building materials, medicines, and ceremonial purposes. Seeds, buds, and the living inner bark tissue were eaten. Wood was used to construct buildings, fence posts, canoes and specialty items such as snowshoes and cradleboards. Resin was used as a waterproofing agent as well as for the preparation of ointments for sores and other ailments. Pollen and needles were used in healing ceremonies and branches were often burned in sweat lodges.

Ponderosa pine is ever as important today. It provides food, shelter, and nesting materials for a wide range of birds and other wildlife species. It is also a very effective plant for erosion control purposes. Ponderosa is regarded as the most commercially valuable pine species in the West. For example Oregon, the largest supplier of ponderosa pine lumber in the country, produces approximately 1.3 billion board feet annually. Indeed one need look no further than the attractive and functional vigas in many of the homes in Deer Canyon to see dramatic examples of the value and beauty of this tree.