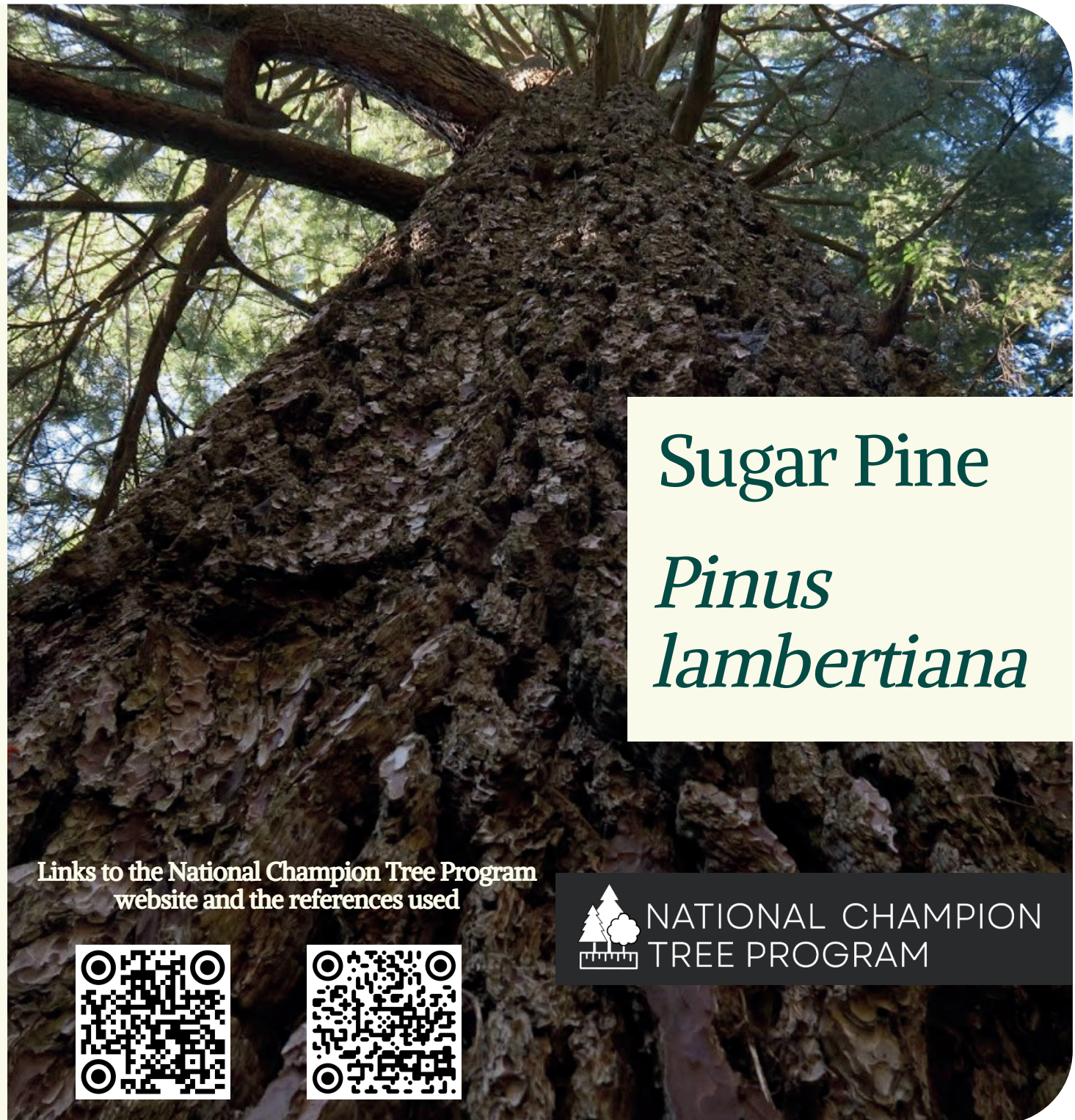




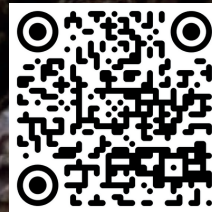
Overview

Sugar Pine is found scattered throughout mixed conifer forests in the mountains of Oregon and California. It has a very large torpedo shaped cone that can reach lengths of up to 18 inches. It is also the largest of the pine species, often reaching heights of over 200 feet. Being well adapted to grow in gaps after a disturbance, Sugar Pine is both an early successional and a serial species. Individuals are known to live up to 500 years. Its thick bark and open canopy makes Sugar Pine resistant to moderate severity fire.



Sugar Pine
Pinus lambertiana

Links to the National Champion Tree Program
website and the references used



NATIONAL CHAMPION
TREE PROGRAM

White Pine Blister Rust (*Cronartium ribicola*)



The introduction of White Pine Blister Rust fungus to North America in the early 1900's from Asia has posed a significant threat to white pines across the continent, including Sugar Pine. The rust infects trees of all ages and sizes, infecting the tree's needles and then traveling into the branch and stem. Over the next few years the infection will spread until it completely encompasses the stem, girdling the tree leading to branch or top die back. This is especially consequential for smaller trees as the infection often reaches the main stem of the tree before the branch dies, often leading to whole tree mortality. White Pine Blister Rust is not able to spread directly between individual pines but rather relies on gooseberries and currant species (*Ribes ssp.*) to complete part of its life cycle. White Pine Blister Rust has had major impacts on many white pine species and has resulted in the decline of multiple pine species here in the west. This highlights the devastation that unwanted pests and disease can have on areas where they are not native.

Mountain Pine Beetle (*Dendroctonus ponderosae*)



Another significant threat that Sugar Pines are facing comes from the Mountain Pine Beetle. These bark beetles are native to the Sugar Pine's range and the trees have a few adaptations to resist their attacks. The tree's main defense is flooding the beetles with pitch as they try to bore into the tree. However, trees with reduced vigor or trees that are under drought stress are often unable to produce enough pitch to effectively flush the beetles out. Research has shown that fire suppression over the last century has increased stand density in forests across the Sugar Pine range. Trees in these denser stands, where fire has been absent for decades, tend to be more susceptible to beetle attack and are often unable to maintain the vigor needed during drought to flush out the invading beetles. Reducing fuel loads in these forests through the combination of thinning and prescribed fire has been associated with decreased bark beetle mortality.

Current Champion Tree Statistics

- Nominated in 2015
- Circumference: 362 inches
- Height: 241 feet
- Crown Spread: 48 feet
- Located in Tuolumne County, CA

