

Black Locust (*Robinia pseudoacacia*)



Summary:

The Black Locust is found throughout the world and its origin is unknown! In the Bay area they are likely planted in peoples yards. It grows in a wide range of forest types and the Appalachian region is where it grows best. This area is in the eastern part of the United States. In California it has established itself in Cleveland National Forest in southern California, and in northern California the tree spread downstream along a riparian zone of the McCloud River.

The tree develops extensive root systems, about 1 to 1.5 the tree height. Black locust is a nitrogen-fixing species which is defined as a process that implies the transformation of the relatively non-reactive atmospheric N₂ into its more reactive compounds (nitrates). Stands of this tree compared to oak forest/hardwood forests showed high concentrations of nitrogen and organic matter.

The tree can grow 40-60 feet in height and its DBH is anywhere from 12-30. It is generally considered a medium sized tree. The bark on a mature tree looks dark and wrinkled and is quite thick. I think the best way to identify this tree is inspection of the leaves. The black locust is deciduous and when flowering it produces white fragrant flowers about 6 inches in length. The leaves specifically pinnately compound leaves, which is described further as a leaf which is divided into smaller leaflets, those leaflets arranged on each side of the leaf's central stalk. The central stalk is generally around 10 inches in length. These trees also produce fruit which flat legumes. They look like dark bean-like pods about 4 inches in length. They typically root or stump sprout after a disturbance, so you will generally find the older trees in the center surrounded by younger trees. These are fast growing but short lived trees, black locust lives about 90 years. Black locust provides food and habitat for a variety of wildlife species including deer, rabbits, and invertebrates.



Fire effects:

The black locust's immediate response to fire is top killed and survives through the stem and underground structures in some cases. Germination and density is often greater post fire of Black Locust through seed survival and sprouting from the root crown. The black locust is well-adapted to surviving and persisting after fire. There have been many studies that demonstrate that black locust often increases greatly after fire.

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