

Phoenix Trees at White Lake

By Elise Eisenberg, SCA Interpretive Ranger

Fire! Sometimes it is destructive and dangerous. Sometimes it's warm and energetic. But for pitch pine trees, it's how they drop seeds and are reborn! White Lake State Park sits upon a 72-acre pitch pine forest that visitors can walk through on the 1.5 mile walk around the lake. But why is that important? What makes pitch pine trees special? Just like the phoenix bird of legend, they need fire to spread their seeds and sprout the next generation of pitch pines.



Image of a mythical Phoenix Bird (AI generated)

Pitch pines are highly fire-resistant trees. Their thick, scaly bark helps protect the inner tree from fire damage. Their thin needles are less likely to catch fire than a large, wide leaf. And most importantly, their small pine cones stay closed until a fire comes through. Then the pine cones will open up and drop their seeds. The trees evolved this way because after a fire, the undergrowth is clear of competing plants. The nutrients from these now-burned plants are absorbed into the soil. The extra nutrients and sunshine all help the pitch pine saplings establish themselves and grow. As with the phoenix birds, the pitch pines arise from the ashes!



An image of a pine sapling growing after a fire

But pitch pines aren't the only pine trees at White Lake State Park. There are also white pines. So how can you tell the difference between these different pine trees. Pitch pines have short, stout and spikey pine cones. However, white pine trees have longer and more slender cones, without any spikes. Pitch pines are often shorter than other pine trees, standing at around 40-60 ft tall. The pitch pine also can have needles growing directly out of the trunk instead of just from branches. White pines however, are 50-80 ft tall. Another way to tell a white pine from pitch pines, is by counting the needles in each cluster. Pine needles grow in small clusters. By counting the needles on the branch or finding fallen clusters on the ground, you can tell whether or not you are looking at a white pine. White pines have 5 needles to a cluster, while pitch pines have 3 needles to a cluster.



Photo taken by Elise Eisenberg, SCA Interpretive Ranger 2025

So why are pitch pines called that? Pitch is similar to tar and is used as glue and for waterproofing. Historically, pitch pines were used for shipbuilding. Pitch pines naturally have a lot of sap within, which is great for its waterproofing and stickiness for constructing boats. Pitch pine is also known as torch pine, as the wood was commonly used for fire and torches as it burns well once the protective bark is removed.

Phoenix Birds live only in mythology, but these phoenix trees are real. They can be seen here in New Hampshire at White Lake State Park. Nature's own phoenix awaits!

Sources

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