

Exploring Kentucky's  
Mighty Oaks

Jim Claypool Conservation  
Writing Contest

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## **Exploring Kentucky's Mighty Oaks**

Trees are important for our survival as well as the ecosystem. Without trees, life would not be possible. Trees provide us with oxygen and food; two of life's most crucial components. Trees are also harvested for medicine and other uses. Trees are undeniably the means to which all life revolves. After discussing the many benefits of trees, I will focus on the mighty oak tree. Oaks are often referred to as the "king of trees," and play a vital ecological role wherever they grow. One thing is for certain; we depend on trees more than ever.

Trees need to be conserved because they play a crucial role in our ecosystem. Trees are considered as natural carbon sinks, which means they have the ability to soak up carbon dioxide from the environment and store it within themselves. This not only reduces the amount of carbon dioxide in our environment but also the impact of the greenhouse effect. The canopies of trees act as a physical filter, trapping dust and absorbing pollutants from the air. They also provide shade from solar radiation and reduce noise. Trees can hold vast amounts of water that would otherwise stream down hills and surge along rivers into towns. That's why trees are such an important part of storm water management for many cities. Wildlife use trees for food, shelter, nesting, and mating. These habitats support the incredible variety of living things on the planet, known as biodiversity. By protecting trees, we also save all the other plants and animals they shelter.

Trees are harvested for use in medicines, food, and various household items that are utilized every day. Birch trees possess concentrations of salicylic acid, the predecessor of aspirin. Willow trees also contain this pain-reducing acid. Balsam poplar trees bear buds coated with a gooey, fragrant substance that is called "balm-of-Gilead," and is an expectorant in cold

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medicine. If it is applied externally, it helps heal wounds. The sassafras tree is used to make sassafras tea from its roots and has long been used as a spring tonic. The bark may be taken from the tree's roots, boiled, and used as an active diuretic.

Apples, pears, peaches and cherries come from trees, as do nuts like, pecans, walnuts, and hazelnuts. Sap, the liquid that flows in trees, is used to make maple syrup, chewing gum, crayons, paint, and soap. Dyes and medicines are made from the bark, while leaves and roots provide oils for cosmetics and medicines. Ground up wood is used to make paper for magazines, newspapers, candy wrappers, and cereal boxes. Carnauba wax, a resin in the leaves of the carnauba tree, is what makes the waxy consistency of crayons. It is also used to make car wax, finishing coats for furniture, to coat produce such as apples, to coat pills, and is used in many cosmetics such as lipstick.

The mighty oak is a keystone species in which entire ecosystems depend upon for survival and habitat. Oaks provide food for more than 100 vertebrate species of wildlife, and the oak tree's enormous trunk and branches provide shelter for many birds and mammals. Oak acorns contain protein and fats that are high in calcium and other minerals, and are a good source of fiber. Acorns can compose the majority of a white-tailed deer's diet in late fall and early winter. Deer and other animals, such as black bears, change their migration patterns according to acorn production. When an acorn crop is good, the result may be more deer fawn twins, thanks to improved nutrition. A bad acorn season can cause wildlife populations that depend on acorns to decline. Acorns are not the only things oaks contribute to wildlife survival. The oak tree provides shade and shelter, leaves and twigs for building nests, and aid in the earth's exchange of oxygen and carbon dioxide, as well as in how water moves through an ecosystem. The shade of an oak tree canopy can lower outdoor temperature in summer and can lower utility bills. A large oak tree

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can catch 3,492 gallons of storm water per year, reducing storm runoff. Oaks also provide beautiful foliage in the fall with majestic colors of red, reddish brown, or yellow brown.

The importance of forests cannot be underestimated. We depend on forests for our survival, from the air we breathe to the wood we use. Besides providing habitats for animals and sustenance for humans, trees also provide watershed protection, prevent soil erosion and diminish climate change. Yet, despite our dependence on forests, we are still allowing them to disappear. Conservation practices are a means to protecting this valuable natural resource. There are several steps that we can incorporate in tree conservation. We can encourage local governments to conserve forests, create parks, and oppose destructive forest developments. Plant trees in our community or donate to organizations that plant trees. We can also educate our youth by teaching them about forest ecosystems and instilling in them a love and reverence for this valuable resource of trees, because let's face it, our lives and the lives of animals and multiple species depend upon it.

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### References

7 Everyday Items Made from Trees. (2019, October 03). Retrieved November

10, 2020, from <https://www.americanforests.org/blog/7-everyday-items-made-from-trees/>

Edible Trees: Foraging for Food from Forests. (2019, August 26). Retrieved November 2,

2020, from <https://www.americanforests.org/magazine/article/edible-trees-foraging-food-forests/>

Exploring Kentucky's Mighty Oaks. Retrieved October 14, 2020, from

<https://eec.ky.gov/Natural-Resources/Conservation/Current%20Art%20and%20Writing%20Information/Exploring%20Kentucky's%20Mighty%20Oaks.pdf>

Importance of Environmental Education in Our Lives. (2020, January 27). Retrieved

November 10, 2020, from <https://www.earthreminder.com/importance-of-environmental-education/>

The Importance of Trees - Learn Value and Benefit of Trees. (2020, October 28). Retrieved

October 30, 2020, from <https://www.savatree.com/whytrees.html>

Oak trees historically important resource for those who lived below. (2012, January 15).

Retrieved October 15, 2020, from <https://www.post-gazette.com/life/outdoors/2012/01/15/Oak-trees-historically-important-resource-for-those-who-lived-below/stories/201201150242>

Top 10 Benefits of Trees. Retrieved November 2, 2020, from

<https://www.earthshare.org/treebenefits/>

Tsevilla, A. (2018, October 12). Oaktobor: The Importance of Oak Trees. Retrieved

November 18, 2020, from <https://naturesperspective.com/oaktobor-the-importance-of-oak-trees/>