

“Protecting Kentucky’s Green Heart”

Rolling hills. Bluegrass fields. Horse farms.

This is what most people think of when they imagine “Kentucky”. While these images capture the beauty of our state, there’s another treasure hidden in plain sight - our lush forests! Kentucky is rich in forests, with 47% of the state covered in forestland according to the Kentucky Energy and Environment Cabinet (“Forest Facts” 1). As you stroll through your neighborhood, take a moment to appreciate the urban forest that lines our streets. Go a little further, and you’ll find larger forests in our state parks, such as Red River Gorge and Daniel Boone National Forest. These forests aren’t just beautiful; they clean our air, prevent erosion, and provide homes for countless wildlife! Yet, these natural wonders face serious threats from wildfires and invasive species. So, let’s rally together and protect Kentucky’s green heart before it’s too late!

To begin, it is important to recognize the value of Kentucky’s forests and the benefits they offer. One of the key roles forests play is purifying the air we breathe. Trees perform this vital function through photosynthesis, a process where they use sunlight, water, and carbon dioxide to produce oxygen and energy in the form of sugar, as defined by National Geographic (“Photosynthesis” 1). Trees absorb carbon dioxide—a greenhouse gas contributing to climate change—and release oxygen we rely on. The U.S. Department of Agriculture notes that “one large tree can absorb up to 48 pounds of carbon dioxide a year” (Stancil 1). This ability to release oxygen is vital for tackling urban air pollution and improving overall air quality. Preserving our forests is crucial, especially in light of the ongoing challenges posed by global warming and climate change.

But, the benefits don’t stop there! Our forests also help prevent erosion. Erosion is defined as “the process where rocks are broken down by natural forces such as wind or water” according to National Geographic (“Erosion” 1). For example, riparian forests are found along the edges of streams, lakes, and

wetlands. They have deep tree roots and leaf litter that help stabilize the banks of these water bodies, making them essential for erosion prevention according to the Jim Claypool Tabloid (“Protecting the Forest Together” 1). By reducing erosion, we can protect against landslides and floods, and maintain the rich topsoil necessary for growing plants, as noted by the World Wildlife Fund (“The Importance of Forests” 1). So, by preserving our forests we can both support the environment and the agricultural economy.

Moving on, let’s not forget about the wildlife that relies on our forests for survival! Forests are essential in supporting wildlife by providing a habitat. According to National Geographic, a habitat is where an organism makes its homes, offering everything it needs to survive, like food, shelter, and a space to reproduce (“Habitat” 1). Forests serve as habitats. But, the loss of forests is a major contributor to biodiversity loss according to the World Wildlife Fund. In fact, forest-dwelling populations have declined on average 60% since 1970 due to the destruction of forests (“The Importance of Forests” 1). In Kentucky, many species depend on forests for survival, from deer to black bears. This makes preserving forests not only important for supporting wildlife but maintaining the overall biodiversity of our ecosystem.

Yet, despite their many benefits, Kentucky forests are facing serious threats. A primary threat is the frequency and intensity of wildfires. According to the University of Kentucky, about 99% of Kentucky’s wildfires are caused by humans, usually by debris burning, campfires, and sparks from farm equipment (“Wildfires” 1). These wildfires can destroy thousands of acres of trees, and decrease air quality and wildlife habitat, making them a threat to Kentucky’s forests according to the Kentucky Energy and Environment Cabinet (“Wildland Fire Management” 1).

Another threat to Kentucky’s forests is invasive species. According to the Kentucky Department of Fish & Wildlife, species like Tree-of-Heaven, Japanese Honeysuckle, and Kudzu can spread rapidly and overtake native species (“Nuisance Species Plan” 1). This can overthrow the natural balance of ecosystems and contribute to more issues, such as vulnerability to pests and diseases. For example, according to the Jim Claypool Tabloid, the Spotted Lanternfly can use its piercing mouthparts to suck

nutrients from plants, which can make the plant more susceptible to stress agents and diseases (“Protecting the Forest Together” 1). This makes invasive species one of the greatest threats to our native forest ecosystems.

So, what can WE do to combat these threats? We can start by educating ourselves on simple conservation steps. For example, the Jim Claypool Tabloid offers wildfire prevention tips, such as never leaving a fire unattended, checking weather conditions before burning, and having plenty of water at hand (“Protecting the Forest Together” 1). Additionally, learning to identify invasive species is crucial. That way, if you find an invasive species in the wild, you can contact the Kentucky Division of Forestry to contribute to invasive species detection efforts. The United States Department of Agriculture emphasizes that early detection and response of invasive species is important in preventing infestations (“Early Detection and Rapid Response” 1)

Beyond education, engaging in hands-on efforts can make a difference. For example, participating in community tree-planting events can positively impact our forests. Organizations like “One Tree Planted” explain the effect of planting trees, stating that it can help re-establish a healthy forest system and regrow canopies to preserve biodiversity (One Tree Planted 1). Therefore, these actions not only beautify our surroundings but also promote biodiversity.

In conclusion, while Kentucky’s forests may not always be front and center of our thoughts, they are a vital cornerstone of our environment. They enhance our air quality, prevent erosion, and provide homes for wildlife. Through education and community engagement, we have the power to protect our forests. Let’s take action, and together, we can ensure that forests are one of the first things people envision when they hear “Kentucky.” Are you ready to join the movement? Let’s protect Kentucky’s green heart!

Works Cited

“Early Detection and Rapid Response.” *U.S. Department of Agriculture*, www.invasivespeciesinfo.gov/subject/early-detection-and-rapid-response. Accessed 29 Nov. 2024.

“Erosion.” *National Geographic Education*, National Geographic, education.nationalgeographic.org/resource/resource-library-erosion/. Accessed 29 Nov. 2024.

“Forest Facts.” *Kentucky Energy and Environment Cabinet*, eec.ky.gov/Natural-Resources/Forestry/Pages/Forest-Facts.aspx#:~:text=Forty%2Deight%20percent%20of%20Kentucky,of%20oak%2Dhickory%20forest%20type. Accessed 29 Nov. 2024.

“Habitat.” *National Geographic Education*, National Geographic, education.nationalgeographic.org/resource/habitat/. Accessed 29 Nov. 2024.

“Nuisance Species Plans.” *Kentucky Department of Fish & Wildlife*, fw.ky.gov/More/Pages/Nuisance-Species-Plans.aspx. Accessed 29 Nov. 2024.

One Tree Planted. “Reforestation.” *One Tree Planted*, onetreepanted.org/pages/reforestation#:~:text=By%20planting%20trees%20in%20areas,preserving%20biodiversity%20within%20the%20ecosystem. Accessed 29 Nov. 2024.

“Photosynthesis.” *National Geographic Education*, National Geographic, education.nationalgeographic.org/resource/photosynthesis/#. Accessed 29 Nov. 2024.

“Protecting the Forest Together.” Kentucky Energy and Environment Cabinet , 2024.

Stancil, Joanna. “The Power of One Tree - The Very Air We Breathe.” *U.S. Department of Agriculture*, 17 Mar. 2015, www.usda.gov/media/blog/2015/03/17/power-one-tree-very-air-we-breathe#:~:text=According%20to%20the%20Arbor%20Day,the%20very%20air%20we%20breathe. Accessed 29 Nov. 2024.

“The Importance of Forests.” *World Wildlife Fund*,
wwf.panda.org/discover/our_focus/forests_practice/importance_forests/. Accessed 29 Nov. 2024.

“Wildfires.” *University of Kentucky Department of Forestry & Natural Resources*, University of Kentucky, forestry.ca.uky.edu/wildfire. Accessed 29 Nov. 2024.

“Wildland Fire Management.” *Kentucky Energy and Environment Cabinet*, eec.ky.gov/Natural-Resources/Forestry/wildland-fire-management/Pages/default.aspx. Accessed 29 Nov. 2024.