

How to Protect the Forests of Kentucky Together.

Forests are one of the most important ecosystems on the planet, providing habitat to many of Earth's fauna and flora. But these ecosystems are under threat due to the development of humanity, and as we push to improve our economy, we are ruining Earth's forests as we know it. This is why it is important for us as people to improve forest conservation because without these environments, our world may lose one of the most important systems it has. So, let's take a look at how we as people of Kentucky can get involved with conservation efforts in our state.

It is important to conservation to assess the plant species that are present in the ecosystem now. Forests are one of the most abundant land ecosystems on Earth, with 31% of Earth's land area consisting of forests, and about 35% of that is in North and Central America (Forest Research, Forestry Statistics 2024, Chapter 9). According to the *Kentucky Energy and Environment Cabinet*, Kentucky is one of the nation's most diverse hardwood species mix states, with about 48% of the land being covered by forests, or 12.4 million acres(2022). There are close to 2,900 species of plants in Kentucky, and the *Department of Forestry and Natural Resources* at the University of Kentucky states, "There are more than 120 native tree species in Kentucky". They further explain that this includes 20 species of Oak, and 10 species of Hickory trees (2024). Although it may seem good to have more species, it can actually cause negative effects to the environment to have invasive plant species. For example, Norway Maples are invasive in parts of the eastern United States, being highly aggressive when it comes to competing for resources and are like weeds when it comes to spreading (The Morton Arboretum. Lisle, IL. 2024). These intrusive plants take out native species and are hard to distinguish from other maples, which is why it is important to know what plants are native to those that aren't when facing forestry conservation.

The plants of the forests aren't the only key factors that need to be looked into when going into forestry conservation; animals also play a role in maintaining the environment. The *Kentucky Department of Fish and Wildlife Resources* explains that Kentucky is exceptionally diverse in wildlife, with almost 1,000 animal species (2024). Many animal species help maintain balance not only with each other, but also with the plants around them. Every factor in an ecosystem must coexist and all affect one another in many ways, some more than others. When invasive species are introduced or when native species are depleted, it can off balance this system. For example, the *Kentucky Department of Fish and Wildlife Resources* states that, "They compete with native wildlife for resources, alter wildlife habitat, and threaten biological diversity." (2024). Because invasive wildlife lack the presence of predators and biological controls they spread exponentially, overtaking native species, an example being Wild pigs (Kentucky Department of Fish and Wildlife Resources, 2024). Imbalances like this in animal species affect the entire ecosystem which is why animal species are important to conservation.

How can we use this information to our advantage when it comes to conservation? Well, being informed about different factors of our forests is crucial to bringing our forests to their full potential and health. Knowing how to identify invasive and native species enables us to know what plants or animals need to be relocated, versus those which need to be reintroduced or protected. Being responsible when it comes to the effects you may have on the forest is important; you need to keep in mind that the species you plant in your yard could be harmful to the environment and can spread rapidly, or that the animals you own or release may be invasive and have an effect on native animal species. You need to always be mindful of your actions and what results may come from them.

Knowing where or who you can go to in your community to contribute to conservation efforts is also important when getting involved. Many state parks and nature centers are in Kentucky where we are able to go and learn about the forests and what needs to be done to protect them. These places can tell us what we can do to play our part in conserving the forest ecosystems, whether that part may be big or small. Not only can we go to places in our community, but there are also multiple online state resources that cover how to get involved, one of which is the *Kentucky Energy and Environment Cabinet*, which shares ways to get involved through volunteering, job opportunities, donating, going to events, and simply learning (2022). By informing others about the harm being done to the forests and educating them on conservation efforts, we can spread awareness and strengthen the results that come from conservation. The more people informed about forestry conservation the more we can improve and work together to protect them. There is always strength in numbers. Remember that everyone can support and help no matter your age. The more we teach our communities on how they can play a role in forest conservation, the more effective the efforts will be.

Now that we know how we can get involved in conservation and what we need to know about the forests, we can start working together to achieve a common goal. With enough people, we can strengthen our forests. Everyone can play a part in protecting the forests, no matter how big or small that part may be. Striving to teach the younger generations will ensure that conservation efforts will continue to improve and will continue for years to come. And always remember that you and everyone around you can make a difference, even if it is a small one.

References and Resources

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