



— THE WILD SIDE OF KENTUCKY —

2015 Conservation Writing and Jim Claypool Art Contest | Wildlife
Sponsored by the Kentucky Farm Bureau Federation and Kentucky Association of Conservation Districts

Why Wildlife is Important to Us and Our World

△
It's fun! Wildlife makes us say "Wow!"

○
We're all connected. If one thing is harmed, it usually hurts something else, too. Bees pollinate all kinds of crops. What does that mean for our food supply?

◇
They provide medicine. Roughly 80% of the world relies on medicine made from a plant or animal source.

They can signal trouble. When one species is in trouble, usually other are as well.

△
We enjoy wildlife and want to preserve it so that our children and grandchildren can experience it too.

◇
They inspire us in emotional and spiritual ways, whether by just watching an ant carry a heavy load or being awed by a majestic elk.

▽
They make the world better. Mussels, which are endangered in Kentucky, filter impurities out of water, leaving it cleaner.

◇
They provide recreation. Many people enjoy hunting and fishing. Others like bird-watching or gardening to attract wild creatures.

○
They can help us solve problems we might not even yet realize we have. For instance, the marine worms polychaetes could help reduce climate change by helping to reduce carbon dioxide in the air. Yet scientists are in a race against extinction, having studied only about 15,000 of the estimated 45,000 species on the planet.

▽
Many people believe every creature has a right to life, whether humans value it or not.



MUSSELS

Look down the next time you're wading in a stream. You don't want to step on a pink heelsplitter, monkey face, pimpleback or a fat mucket.

These animals with such unusual names are mussels, the clams of Kentucky's rivers and streams. And where you find them, you'll find clean water.

One third of the mussels found in the United States live in Kentucky. But they are a species in trouble. Of the 103 kinds of mussels found in the state originally, 20 have disappeared from Kentucky while 36 more are considered rare or endangered.

There are many reasons for this decline. Water pollution is one. Soil erosion can add so much dirt to the water that mussels can't survive. Damming rivers and streams to create lakes creates poor habitat, or living conditions, for mussels.

Mussels eat by filtering bacteria and plankton from sediment in the water. They are sensitive to toxins, however. They can be killed by pollution. Nationwide, 71 percent of the country's mussels are considered endangered, threatened or in trouble.

There is hope. Waterways are getting cleaner and people are more aware of the need for soil conservation. Researchers are now restoring rare mussels to the state by raising them at a hatchery in Frankfort and putting them back into Kentucky's rivers and streams.

DID YOU KNOW?

- Mussels also produce pearls. A mussel pearl found in Tennessee in 1904 fetched \$4,000 – that's more than \$105,000 today.
- Some mussels have soft body parts that look like minnows or worms when thrust outside their shells. They use these as lures to attract fish, then squirt the fish's gills with their larval mussels. This is how mussel beds can move from one place to another.
- Mussel shells were used to make buttons before plastic gained widespread use.



WILD THINGS CRAVE CREATURE COMFORTS TOO

When we talk about “wildlife habitat” we’re talking about places where creatures can live comfortably. Like us, they need basic things—food, shelter, clear air and water—but sometimes they need specific kinds of plants, terrain or other special conditions to really thrive and reproduce.

Increasingly, clearing of land and construction are reducing the space where many animals can live. And sometimes they can't live on other pieces of land because those places don't have the right conditions. Loss of habitat is one of the greatest threats to endangered species. That's why it's so important for us humans to make wise decisions about how we use the land.

▶ GETTING WILD IN THE BACKYARD ◀

It's fun to find ways to bring wildlife into your backyard, especially with development crowding them out of their homes. They especially need our help during the winter months. Here's how to get started:

- 1. Plan:** Decide what animals you'd like to attract. Plan to take the good aspects (they're cute!) with the bad (they might eat your garden).
- 2. Food:** Research and plant the foliage these animals eat. Native plants work best.
- 3. Water:** That can be as easy as putting out a birdbath or building a pond.
- 4. Shelter:** Animals need places to feel safe and to raise their young. It can be shrubbery, a nesting box or a brush pile on the edge of the yard.
- 5. Space:** Larger animals need larger spaces and no animal likes to feel crowded. Learn about the animal before you attract it.

≡ HUMMINGBIRDS ≡

If you'd like to attract hummingbirds, keep these things in mind:

- They like flowers that are red or bright orange.
- Plant tubular-shaped flowers, especially red ones that are rich in nectar.
- Put out old bananas to draw fruit flies. Hummers love these tiny insects!
- Keep several feeders filled with fresh nectar. The recipe: one part sugar to four parts water, just bring to a boil, and then cool in the refrigerator. Do not use honey, or food coloring.
- Buy a mister that you can hook to a garden hose. Hummingbirds love to rub against dripping wet leaves and fly through the mist.

◀ BIRDS ▶

Here are some basic tips for attracting our feathered friends to your backyard:

- Research the kinds of birds you want to attract and what they like to eat. Not all birds eat seed.
- To attract a variety of birds, use a variety of different types of bird feeders.
- Place your feeders at varying heights.
- Try placing food on the ground or sidewalk since some birds are ground feeders.
- Put your feeders near bushes or trees so birds can feel safe from hawks and other predators.
- You can grease metal or plastic feeder poles with shortening or oil to keep squirrels from climbing them.
- Clean and wash your bird feeder regularly.



Cardinals

The cardinal was named Kentucky's state bird in 1926. Only the males are vivid red; the females are less conspicuous, which helps them hide from predators. Cardinals don't migrate, so you can hear their whistles year around.



••• BUILD A BIRDBATH •••

To make a birdbath, all you need is a base and a bowl. You can find both at the gardening center.

Use terra-cotta pots and a bowl in creative ways to make a unique birdbath. Just overturn the largest one at the bottom for stability. Then you can stack them any way you like and adhere the bowl to the top.

Make your birdbath fancy with paints or use a glue gun to adhere pretty rocks or shells for a special look.



FROGS

With just a little effort you can create a haven for amphibians in your yard. Here are a few suggestions:

- Leave some leaf litter under your trees, shrubs and in the garden.
- Encourage native ground cover, grasses and wildflowers.
- Build a burrow with cover under shady plants where toads can hide. It can be simply an overturned flowerpot with an entrance hole.
- Build a shallow pond that includes natural pond vegetation and rocks around it.
- Set up a light no higher than 3 feet off the ground between the garden and the lawn. The light will attract insects on which toads will feed on at night.
- Watch toads and frogs, but don't capture them.
- Minimize the use of pesticides and fertilizers in the yard.



BATS

Bats found in the United States feed exclusively on insects. A bat feasting on moths, mosquitoes, beetles and other insects can eat half its body weight in one night! So bats can be good to have around in the backyard. A typical summer colony of 100 bats feeding 200 days will consume more than 2,200 pounds of insects or approximately 600 million bugs.



SQUIRRELS

The gray squirrel was designated as Kentucky's state wild game animal species in 1968. Those bushy-tailed rodents have a mixture of brown, black and white fur that blends together to make them look gray.

Gray squirrels will use old woodpecker holes or natural cavities to live in and raise young. They will also build large nests of leaves and twigs.

They love acorns and nuts, but also eat seeds, fruits, insects, fungi and occasional bird eggs.

The squirrel's bushy tail is used for balance, a blanket, an umbrella, a parachute and to communicate.



BUTTERFLIES

Creating habitat for butterflies is exciting and rewarding. Think about these aspects of your butterfly habitat:

- Sunny areas: Plants that butterflies like require bright sunshine.
- Splashes of color: Butterflies are attracted to flowers by color. They can find groups of flowers more easily than isolated plants.
- Host plants: Female butterflies lay their eggs only on certain host plants that will nourish the young caterpillars after they hatch.
- Damp areas: Butterflies cannot drink from open water. Wet sand or mud are the best watering holes.
- Basking stones: Butterflies often perch on stones to bask in the sun. Basking raises their body temperature so that they can fly and remain active.



SO MUCH WILDLIFE TO SEE

There's only one place you can see a bear, bass, bobcat, rattlesnake, snapping turtle, bison, elk and eagle all in the same day: The Salato Wildlife Education Center in Frankfort. Take a hike through the woods, walk behind a waterfall or grab a net and work a fish shocking boat. There's plenty to do at the center.

Learn more about the Salato Center and find out about special events online at fw.ky.gov.

Be Bear Aware

Bears can smell food from amazing distances. So take a few simple precautions to prevent problems if you live in bear country:

- Don't leave pet food outside. This attracts bears and other critters. Instead, take food back up when your pets are finished eating.
- Keep garbage in a shed or other secure place. Bears love easy-open garbage cans.
- Don't toss food to a bear. Feeding bears is illegal.

Making A Comeback

Twenty years ago, you couldn't find any elk or bears in the wilds of Kentucky. Now you can see both species roaming the southeastern part of the state. These are examples of wildlife coming back on its own, or with a little help from people. Either way, animals need the right habitat – such as grasslands or forests - to thrive.

Bears and elk were hunted out of existence in Kentucky by the 1850s. Intense logging of the mountains began soon afterward. Without this forest habitat, a bear had no place to stay.

The forests eventually grew back. About 15 years ago, bears from Virginia, Tennessee and West Virginia started wandering into Kentucky to live.

Few wild elk existed in the eastern United States, however. So in 1997,

Kentucky captured more than 1,500 elk from six western states and released them in the mountains. The grasslands created at reclaimed coal mines and the surrounding forest provided the right habitat for elk to thrive. Now more than 10,000 elk roam the state.

These restorations worked because the right habitat existed. Kentucky's next big restoration project is quail. Just releasing birds doesn't work because quail need overgrown fields to hide and thrive. So what will it take to restore quail? Restoring the habitat first.





WESTERN

Western Kentucky Hardwood Bottomland: Four river systems meet in western Kentucky. These systems and the wetland and bottomland forests around them provide habitat for many animals. The cypress swamps here are found nowhere else in the state. These wetland areas are also important for a healthy environment since they store floodwaters, trap sediment (soil in the water), and clean water by naturally filtering it. The dominant trees are green ash, sweetgum, pin oak, cherry bark oak and bald cypress. Migrating ducks, American snapping turtles, cranes, swamp rabbits and many bird species all find food and shelter here.



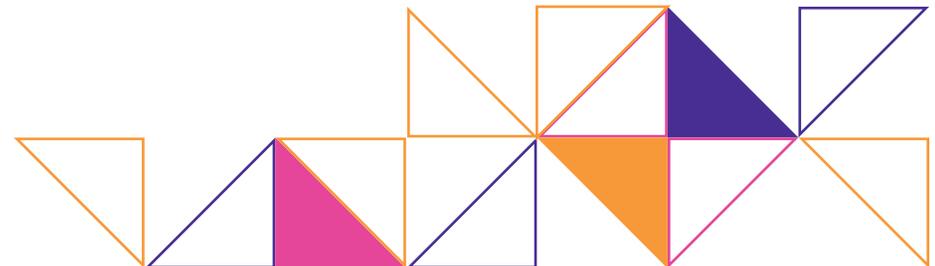
CENTRAL

Central Kentucky Forest Edge: Central KY's forests and fields show that they were once prairie and savanna habitats. You can still see what is left of ash-oak savannas, cedar glades, and prairie lands when traveling down roads that started out as buffalo trails. Most wildlife here is adapted to living in an open land or an "edge" habitat. An edge habitat is the area where grassland and forest meet. Trees in this region include bur oaks, eastern red cedar, sassafras, hackberry and hickory. Here you will find white-tailed deer, wild turkey, killdeer, coyotes, eastern cottontail, white-footed mouse, eastern gray squirrel, blue jay, northern bobwhite, eastern chipmunk and raccoon.



EASTERN

Eastern Kentucky Mountain Ridge: The forests in the mountains of this area of Kentucky are a mix of hardwood and evergreen trees. The soils here are made up of a lot of rotted leaves and wood that soak up rainwater so the soil stays moist. The hills in this forested area serve as important watersheds where many rivers and creeks start. The dominant trees in this area are yellow-poplar, American beech, white oak, sugar maple and eastern hemlock. Many animals call eastern Kentucky home. Here you will find black bears, wood frogs, elk, ruffed grouse, Virginia opossum, beaver, Eastern cottontail, woodpeckers, and the northern bobwhite.





WETLANDS&..... WILDLIFE

More than one-third of the United States' threatened and endangered species live only in wetlands

Wetlands, just like you imagine, are wet areas of land. What you might not realize is how important wetlands are to us and the environment. What's shocking is Kentucky has lost over 80% of its original wetland acreage. These very wetlands improve water quality, provide flood protection, reduce erosion, and provide recreation and aesthetic enjoyment for people.

With all the ways wetlands can help people we mustn't forget how important they are to plants and wildlife. Wetlands act as nurseries for many animals providing a safe haven and rest areas for migratory birds. Many food chains and species themselves are dependent on wetlands for their very survival.

Sometimes wetlands have a bad reputation. You may imagine stinky

swamps or soggy bogs, judging from the photo (left) they're not that at all. Spend some time around wetlands and you will see how much life there is for yourself.

▶▶▶ Transformation

Even though the animals below look very different they're actually both Eastern Newts at different stages in their lives. The Eastern Newt is born in the water only to go on land to grow up as an "eft", eventually returning to the water as an adult. Efts can live on land for up to four years and actually have poisonous chemicals on their skin during this stage to protect them from predators.



▶▶▶ Meat-eating plants

Tiny native plants (less than half an inch across) called sundews live in a wetland in Pulaski County. Their leaves are covered with bright red hairs that secrete a sticky juice that sparkles in the sun. This attracts insects, which become trapped on the leaves. The plant "eats" the insects by dissolving them with digestive enzymes, much like we dissolve the food in our stomachs. Sundews get lots of nitrogen from the insects. That's a good thing, because sundews live in wetlands, which usually don't have a lot of nitrogen in the soil. Plants need nitrogen to live, much like we need protein, fruits and vegetables to be healthy. ▲▲▲

FISH HANGOUTS

Where do fish live? If you say “in water,” you’re only partly correct. That would be the same as saying birds and mammals live “in the air.”

Just as land animals require a certain kind of habitat to meet their basic needs, fish seek out specific spots in a lake, stream or pond – spots that provide them with the habitat they need.

Some fish, such as largemouth bass, spend most of their time near “structure” — objects or unusual features on the shoreline or the bottom in deeper waters. Examples of structure are tree stumps, aquatic weeds and underwater humps, trenches and rock piles. Other fish, such as white bass, are found in open water, sometimes near the middle of the lake.

Fish have many options for finding comfortable hangouts in the water. Since water temperatures drop in deeper water, fish such as rainbow trout, which prefer cool water, can drop down to the temperature they like. But bluegill, which are a warm water fish, will often be found in shallower, warmer water, where they don’t mind temperatures in the 80s.

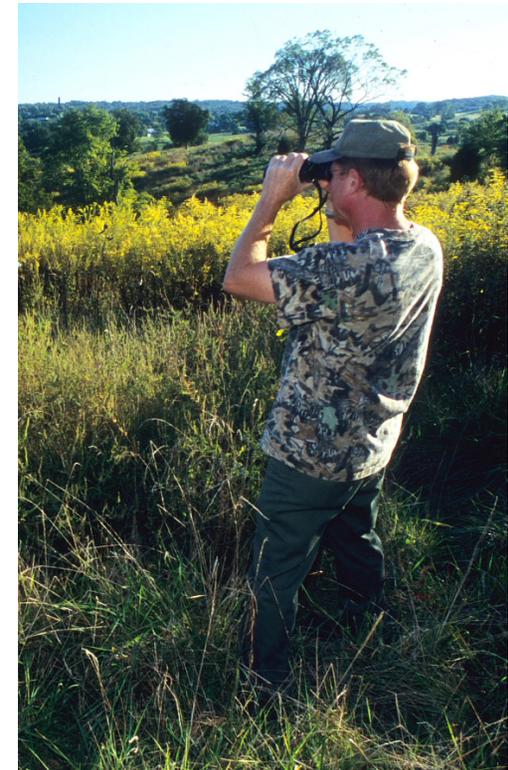
Just as rabbits often hide in brush piles or briar patches, most fish will seek out some kind of shelter, or cover. Cover, such as the top of a tree that has fallen into the water, provides needed shade and also food and protection from predators.

Algae grow on the brush, attracting small algae-eating fish. This in turn draws larger fish-eating species such as bass or crappie. So in a brush pile or other shelter, a fish can find food, shade and protection – just about everything it needs.

GO EXPLORING!

Kentucky has all kinds of terrain to explore, from the mountains in the east to the wetlands of the west. Thousands of acres are managed as Wildlife Management Areas (WMA) and are open for you to wander.

To find the WMA nearest you, go online to fw.ky.gov and click the “maps” tab. Want to know what kinds of critters you might encounter? Search this website under the keywords, “species info.”



WHITE-TAILED DEER

Researchers believe that Kentucky has more deer today than during Daniel Boone's time. This is because deer are an "edge species." They do best when they have a mixed habitat of forests and fields. Forests once blanketed much of Kentucky. As the settlers and pioneers arrived, they cleared the land to grow crops to feed themselves. This created more fields for deer to use. Grasses in the fields gave deer plenty to eat, while forests provided them places to hide.

But deer nearly disappeared from Kentucky despite the habitat change. Daniel Boone found abundant deer when he visited here in 1767. However, settlers killed vast numbers of deer. By 1810, naturalist John James Audubon noted that vast numbers of deer no longer existed in the Ohio River valley of Kentucky.

Kentucky had less than 1,000 deer in the entire state when legislators banned deer hunting in 1916. Thirty years later, Kentucky began a deer restoration effort that lasted through 1999. The state initially set up 13 refuges and improved habitat in these areas. Deer from existing herds were trapped then released throughout the state.

By 1956, deer numbers had reached 25,000 and Kentucky once again allowed deer hunting. Unlike the past, hunters were limited in the number of deer they could take. Game wardens, known today as conservation officers, upheld the wildlife laws.

Today, nearly a million deer live in Kentucky. You'll find them in every county of the state. Good habitat, conservation and restoration efforts made this possible.



◀ COOL THINGS TO DO ▶

We hear a lot about climate change these days. Basically, we humans are living in ways that are affecting the environment. Temperatures are getting warmer and that's bringing climate change that can affect plants, wildlife and even us humans.

Many of Earth's habitats and ecosystems depend on a delicate balance of rain, temperature and soil type. In the past, climate changes took place slowly and plants and animals had time to adapt, but they might not be able to if change comes quickly.

We humans need to find ways to reduce our effect on the environment. That means burning less gas and using more energy-efficient technologies.

The organization Defenders of Wildlife ([www. Defenders.org](http://www.Defenders.org)) likens the situation to driving down a mountain and realizing you are speeding towards a cliff. We've got to slow down and change direction.

Here are some things we all can do:

- Speak out for better auto fuel-economy standards. Write to your representative and a letter to the editor of your newspaper.
- Use less energy: Use compact fluorescent bulbs, lower the thermostat two degrees in the winter and wash clothes in cold water.
- Buy foods grown without pesticides. Also buying locally grown food cuts down on the fuel burned to truck it in.
- Welcome wildlife into your garden.

Conservation Districts

Do you know what else is located in every county in the state? Conservation Districts! For more than 60 years, Kentucky's 121 Conservation Districts (there are 2 districts in Logan County) have been made up of locally elected boards that develop plans to help communities grow while still protecting our soil and water for the fish and wildlife of the state.

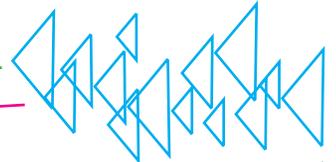
These boards assist farmers with conservation plans that reduce soil erosion and control silt and other contaminants from entering ponds, lakes and streams. Certain practices such as grass waterways, strip cropping, adding fences or adding trees attract wildlife provide their basic needs such as shelter, nesting and food.

Another practice that supports wildlife is crop rotation. During the winter, farmers will leave the crop residue left over from harvesting. In doing that, wildlife can feed off of the estimated 2 to 3 bushels of grain that is left over.

Many farm ponds have been constructed all over the state. The small lakes built in Kentucky's small watershed program prevent floods, control silt in the streams below and can be used for fishing.

The biggest job that the conservation districts have is educating the public about the importance of soil and water conservation. They work with schools, civic groups and various other organizations to get the conservation district message out.

For more information visit: conservation.ky.gov



> START AN ENVIROTHON TEAM <

Are you interested in environmental issues? If so, then you and your friends should form an Envirothon team. The statewide competition allows high school students to team up on a series of hands-on outdoor contests to solve environmental problems and test their knowledge of natural resources.

The event is made up of teams of five high school students competing in five different areas: aquatics, forestry, soils, wildlife and a current issue. The 2016 current issue is "Invasive Species." At each site, students will use their knowledge to participate in hands-on activities to complete a test.

The Kentucky Envirothon consists of two regional competitions. Top scoring teams from each regional competition will move on to the state competition. Regional competitions are held each year in April, and the state competition is held in May. Registration for next year's competition will begin in December.

Contact Information:

Your local conservation district: conservation.ky.gov/Pages/ConservationDistricts.aspx

Division of Conservation: conservation.ky.gov/Pages/Envirothon.aspx

Johnna McHugh: 502-564-2320 or johnna.mchugh@ky.gov

THE WILD SIDE OF KENTUCKY

2015 Conservation Writing and Jim Claypool Art Contest | Rules

▶▶▶ STATE WINNERS

First - \$250 check; Second - \$150 check; Third - \$50 check

▶▶▶ REGIONAL WINNERS

\$50 check

▶▶▶ COUNTY LEVEL WINNERS

\$25 check

* State and Regional winners will receive a personalized certificate. County winners that win regional or state awards will only receive one check for the top prize.

▶▶▶ RULES

1. Kentucky students grades 6-12 are eligible to compete in the writing contest. Only students through grade 5 may compete in the art contest.

2. A student may not enter both the Jim Claypool Conservation Art Contest and the Conservation Writing Contest during the same contest.

3. An entry must be created by one and only one student. Any entry submitted by more than one student will be disqualified.

4. All entries become the property of the contest sponsors. The decisions of the judges at all levels of competition are final.

5. WRITING: entry may not exceed 1,000 words and must be written in ink or typed on one side of paper only. Typed entries must be written in 12pt font, Times New Roman or Calibri. No photographs or artwork may be included with the written work. It is suggested that the written entry take the form of informational writing (from the perspective of an informed writer to a less informed reader) and may be in the form of a letter, blog entry, editorial or speech. It should persuade the reader to take action toward good wildlife conservation practices or propose a solution to one or more wildlife conservation issues. The work should be from the student author and avoid plagiarism from this source or other sources. Sources should be cited.

6. ARTWORK: shall be 8 1/2"x11". Any thickness or color of art board may be used. Art paper may be used, but must be pasted onto art board or cardboard before submitting for competition. NO plywood will be accepted. Artwork may be rendered in any medium: pencil, ink, charcoal, crayon, oil, etc., but it must be flat art. 3-D art is unacceptable; however, collages, photographs or other art pasted onto your board will be accepted as long as it is flat art pasted securely to the poster board. An art entry may take the form of a poster, newspaper advertisement or editorial cartoon, making sure that whatever form is used the artwork conveys a message at a glance that persuades its viewers to take action toward good wildlife conservation practices.

7. Top three writing entries and/or artworks from your school must be submitted to your local county conservation district by Dec. 1, 2015.

8. The official entry form must be completed and secured to the back of your entry.

▶▶▶ POINT SYSTEM FOR ARTWORK

- 50 points - Purpose / Audience. (Appropriate communication style to reach audience, establishes and maintains a purpose; and holds to subject in community. Theme clearly conveyed at a glance.)
- 30 points - Composition / creativity / craftsmanship. (Layout, originality, and quality of work, such as neatness.)
- 20 points - Language / correctness. (Word choice, usage, spelling, punctuation, capitalization.)

▶▶▶ POINT SYSTEM FOR WRITING

- 30 points - Purpose/Audience (establishes and maintains a purpose, communicates with audience, employs a suitable voice and/or tone)
- 20 points - Organization (logical order, coherence, transition organizational signals)
- 20 points - Idea Development/Support and Evidence of Research (student's original work the shows sources of research)
- 30 points - Correctness (spelling, punctuation, capitalization), Language (word choice, usage), Sentences (varied in structure and length, constructed effectively, complete and correct)

▶▶▶ HELPFUL HINTS

- Keep entry simple and sincere.
- Be creative and original. Avoid plagiarism by using original words and ideas. Plagiarism is defined as the act of stealing and passing off the words of another as your own without crediting the source.
- Consider an area of wildlife conservation that is important to you, your family and your community.
- Draw from your personal interests or experiences.
- Writing entry should take the form of informational.
- Think about wildlife issues in your community, farm, subdivision or city.
- DO NOT use the "Wild Side of Kentucky" as your only source.
- Interview people in your community about changes in wildlife issues.
- Find ways to improve wildlife in your community. TAKE ACTION!

The Division of Conservation acknowledges and thanks the following organizations and agencies for their support: Kentucky Farm Bureau Federation; Kentucky Association of Conservation Districts; Division of Water; Energy and Environment Cabinet; Department of Fish and Wildlife Resources; Division of Forestry; Department of Education; USDA Natural Resources Conservation Service, UK Cooperative Extension Service

THE WILD SIDE OF KENTUCKY

Contest Entry Form

Name (Miss, Mr) _____

Parent's Name _____

Home Address _____

City _____ Zip _____

Home Phone () _____

Age _____ Grade _____ Teacher _____

County _____

School _____

School Address _____

City _____ Zip _____

School Phone () _____

I hereby certify that I have read the rules and helpful hints and this entry is the original work of:

Student Signature

Parent/Guardian Signature (required)

Teacher or Principal's Signature (required)