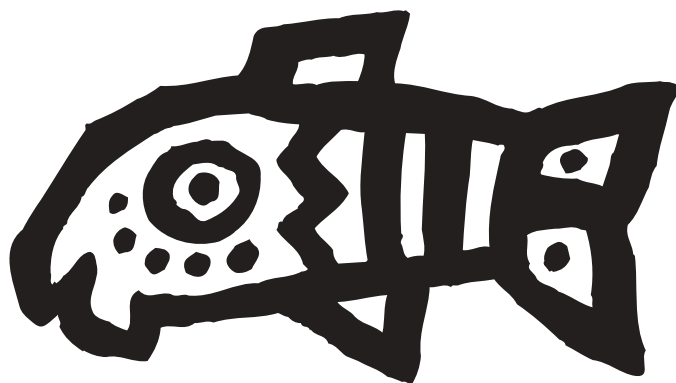


Field Guides

Information About the Natural World



Informational Reading

RD-E-2.0.8 Identify Main Ideas/Details

RD-E-2.0.9 Make Predictions, Draw Conclusions

RD-E-2.0.10 Connect Content to Real World

A CALENDAR OF NATURAL EVENTS

	1 st week	2 nd week	3 rd week	4 th week
DEC.			Wood turtles go into hibernation. December 21, Winter Solstice.	Mice feed on grass shoots and bark. Watch for tracks after first snow.
JAN.	January 6, Twelfth Night - traditionally animals are able to speak on this night.	Stoneflies emerge as adults. First heavy snows.	Mating season for raccoons. January thaw - watch for honeybee flights.	The Hunger Moon of the American Indian - the hardest time of the year. Mating season for musk.
FEB.	Redpoll flights arrive. Listen for fox yelps. February 2, Ground Hog Day.	Great horned owls nest. Skunks mate.	On the coast, snow buntings move northward.	Mating season for foxes. Red-winged blackbirds return.
MARCH	Geese and ducks move northward. Pussy willows appear.	Blackbirds return. Song sparrows and fox sparrows arrive.	First hardy flowers. March 21, first day of spring.	

WINTER

A CALENDAR OF NATURAL EVENTS

	1 st week	2 nd week	3 rd week	4 th week
MARCH				Skunk cabbage well up. Blackbirds, robins and song sparrows have returned. Shoots of day lily up.
APRIL	Wood frogs call. Salamander migration. Mourning cloak butterflies. Red maples bloom in swamps. Pussy willows out.	Spring peepers call. Tree swallows return. Phoebes. Forsythia blooms.	Spring azure butterflies. Toads call. Heose wrens. Spicebush blooms.	Catbirds. Swifts and barn swallows. Birch catkins out. Quaker-ladies bloom.
MAY	Black and white warblers. Yellow-rumped warblers. Dogwoods flower. Shadbush out. Violets bloom.	Warbler migration. Rose-breasted grosbeaks. Towhees. Columbine blooms. Bloodroot flowers in open woods.	Indigo buntings. Great crested flycatchers. Lilacs bloom. Dandelions out. Buttercups.	Wood peckers. Flycatchers. Apple trees flower. Canada may flowers bloom.
JUNE	Young mammals leave nests. Wild geraniums and yuccas bloom.	First brood of young birch leaf nests. Ox-eye daisy. Orange hawkweed.	First cutting of hay. Day lily flowers. Barnyardberries. Lady's slipper.	

SPRING

A CALENDAR OF NATURAL EVENTS

	1 st week	2 nd week	3 rd week	4 th week
JUN.	Toad tadpoles in shallow ponds. Daisy and yarrow bloom. Orion nests at ends of elm branches.	Tiger swallowtail butterflies. Fireflies appear. Blood nymph butterflies.	Bats out in full force. Devils paintbrush blooming in fields. Viceroy butterflies. June bugs.	Meadow crickets calling. First cutting of hay. Bullfrogs calling.
JULY	Paper wasp nests complete. Deer flies. Red admiral butterfly. 17-year locust calls.	Mullein in bloom. Day lily flowers. Gray tree frogs call. Monarch butterflies appear.	Chicory in blossom along roadsides. Indian pipes in deep woods.	Praying mantises abundant. Snowy tree cricket calls. Katydid begin to call.
AUG.	Night chorus of insects in full swing. Barn swallows begin to gather on wires.	Burdock blooms. Forsyth meteor showers in northeast sky, 10 p.m. Corn is ripe.	Early morning spider webs. First asters. Nighthawks pass.	Corn swallows leave. First wave of fall warbler migration. Fall webworms.
SEPT.	Tree swallow migration. Watch full moon for passing bird migrants.	Green darner migration. Goldfinches and asters in full bloom.	Monarch butterfly migration. Broad-winged hawks on the move. Apples ripe.	

SUMMER

A CALENDAR OF NATURAL EVENTS

	1 st week	2 nd week	3 rd week	4 th week
SEPT.				Mushrooms appear after rains. Fall webworm webs. Monarch butterfly migration.
OCT.	Fall fruits. Sharp-shinned hawk migration.	Vine berries appear. Sensitive ferns hit by frosts. Juncos arrive. Fall color at height.	Nuts ripe. Blackbird migration. Yellow-rumped warblers migrate.	Grosbeaks and purple finches arrive. Chipmunks go under-ground.
NOV.	Canada geese migrate. Listen for the last calls of the meadow crickets. Red-tailed hawks migrate.	Fall cankerworms emerge. Slugs and snails go into hibernation. Watch for old birds' nests as leaves go.	Wrens leave paper nests for nooks and crevices. Deer herds gathering. Witch hazel in bloom.	Early snows. Pine grosbeaks arrive. Milkweed pods open.
DEC.	Starling flocks form. Redpolls arrive. Watch for lingering migrants.	Watch for the winter coats of small mammals. Goldfinches active.	Ducks active as ponds freeze over. Watch for wintergreen and partridge berries. Winter solstice.	Watch for new birds at feeders as snows come in. Orion visible.

FALL

CLOUD WATCHING

There is no season like summer for watching the sky. It is then that the most interesting and varied cloud formations appear.



Cumulus:

Fluffy white clouds with dark bases that usually mean fair weather. Sometimes pile up enough to bring rain showers.



Nimbostratus:
Heavy dark clouds that usually appear before rain or snow. Common in winter.



Cirrus:

Commonly referred to as "Mare's Tails." Cirrus clouds are created by tiny beads of ice. They are high-level clouds - 20,000 feet or more. The word "Cirrus" is from the Latin "to curl."



Stratocumulus:

Low, water-carrying clouds. Often threaten bad weather.



**Cumulo-
nimbus**
may rise
to 75,000
feet.

Cumulonimbus:

Probably the most spectacular formation. Often bring thunderstorms.

For Further Information: Eric Sloane's Weather Book, Eric Sloane, Hawthorn. Insect Weather Forecasting, Alan Watts, Dadd, Mead & Company.

insects in the grass

Swamp an insect net through the long grass like a broom a few times and you will sweep up a surprising variety of species. (Drawings not to scale.)



Tortoise Beetle

Some species of tortoise beetles look like flat ladybugs or tiny turtles.

A jar with a wet top will make it easy to observe the insects you will catch.



Short-horned Grasshopper

Probably the most common insect in the grass. Antennae of this grasshopper are always much shorter than the body.



Praying Mantis

Young praying mantises are one of the common insects in grass in mid to late summer.



Stink Bug

If you crush the stink-bug you will smell the reason for its name. Body brownish-green and shaped like a shield.



Red-banded Leafhopper

One of the most colorful insects in the grass, red-banded leafhoppers look like torpedo-shaped American flags.

For Further Information: Field Book of Insects, Frank E. Lutz, Pitman.

HITCHHIKERS

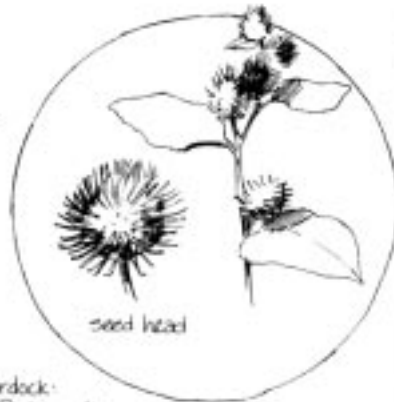


Cocklebur:
Commonly found on flood plains and around lakes. Watch for the two hooked hairs at the top of the bur.

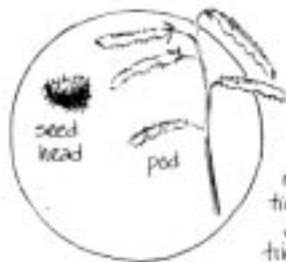
Seeds have a number of ways of spreading themselves around. Some are blown by the wind, some are eaten and digested by birds and mammals and some are equipped with stickers and are carried from place to place on fur or clothing.



Beggar's Ticks:
Look for the two hooked prongs which grow on a round seed head.



Burdock:
Perhaps the most common and obvious of the hitchhikers. Burs often become hopelessly entangled in the fur of long-haired dogs.



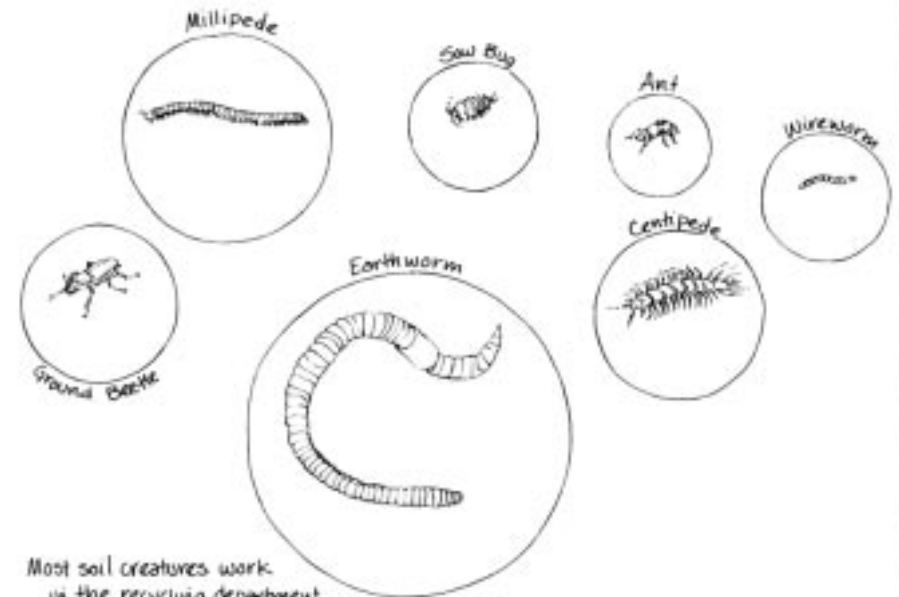
Tick Trefoil:
Sometimes referred to as beggar's ticks. The tiny pods are covered with tiny hooked hairs.

For Further Information: *Seeds by Wind and Water*, Helene J. Jordan, Crowell.



WHAT LIVES IN THE SOIL

Below are some of the insects and invertebrates you can expect to find in soil. Some of these help to create healthy soil. Others, like the wireworm, may be harmful to garden plants.



Most soil creatures work in the recycling department of the forests and fields. They are constantly turning organic matter such as leaves and bits of wood into rich soil. Turn over any patch of woodland soil and you will be able to see them at work.

For Further Information: *Soil Animals*, Frederick Schaller, University of Michigan Press.

A GUIDE TO ANIMAL TRACKS

Wherever they go, whatever they do, mammals leave signs. Winter is the best time to track them, especially after light snow falls.

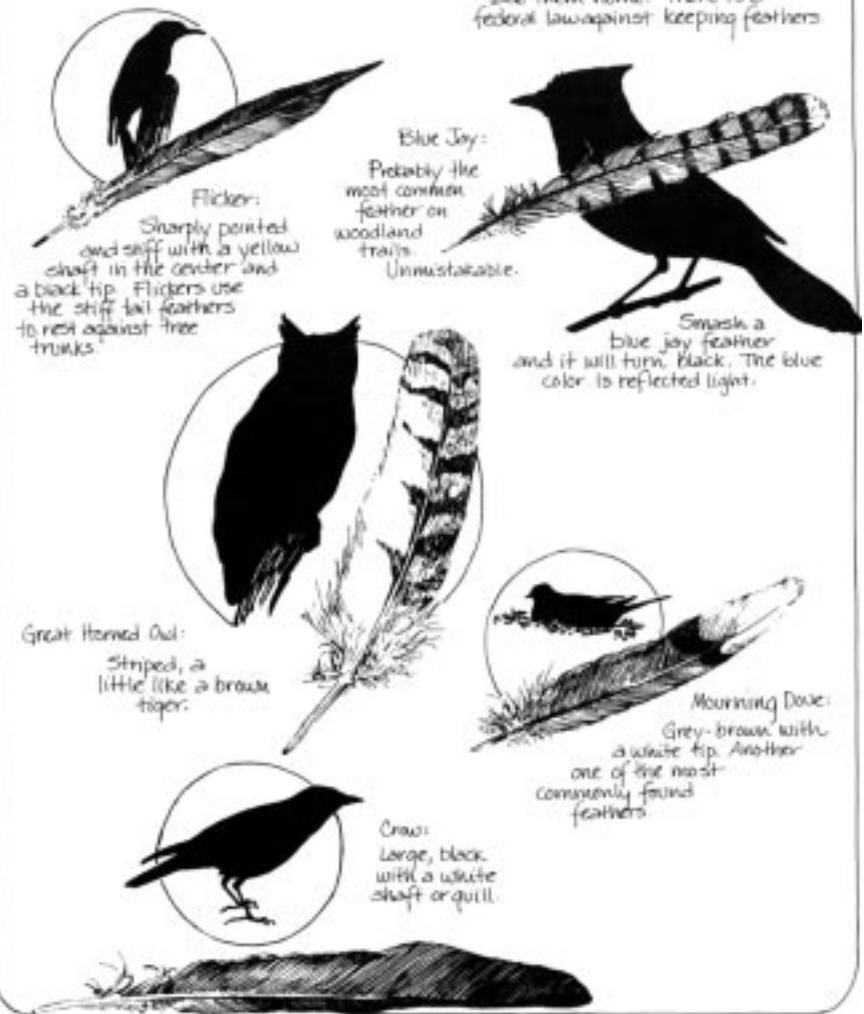
POCKET GUIDE TO ANIMAL TRACKS FOUND IN KENTUCKY

<p>Bobcat</p>		<p>Gray Fox</p>		<p>Black Bear</p>		<p>Gray & Fox Squirrel</p>		<p>KENTUCKY FISH AND WILDLIFE DEPARTMENT</p>	
<p>Raccoon</p>		<p>Cougar</p>		<p>Whitetail Deer</p>		<p>Blue Heron</p>			<p>Wild Turkey</p>
<p>Weasel Mink - similar to weasel F-1" H-1.25"</p>		<p>Beaver</p>		<p>Chipmunk</p>		<p>White-Footed Mouse</p>		<p>House Cat</p>	
<p>Coyote</p>		<p>Woodchuck</p>		<p>Opossum</p>		<p>Otter</p>		<p>Grouse</p>	
<p>Cottontail (pattern)</p>		<p>Striped Skunk</p>		<p>Muskrat</p>		<p>Rat</p>		<p>Canada Goose</p>	
<p>Cow</p>		<p>Horse</p>		<p>Goat</p>		<p>Pig</p>		<p>Crow</p>	
<p>Wolf</p>		<p>Red Fox</p>		<p>Sheep</p>					

F - Front Track
H - Hind Track
Tracks not to scale.
Sizes are approximate.
Tracks will show considerable variations due to ground conditions (snow, mud, dust, etc.) and animal movement. Measurements are toe to heel.

BIRD FEATHERS

A walk in the woods in summer will probably turn up a few bird feathers. Identify them, but don't take them home. There is a federal law against keeping feathers.



Flicker:
Sharply pointed and stiff with a yellow shaft in the center and a black tip. Flickers use the stiff tail feathers to rest against tree trunks.

Blue Jay:
Probably the most common feather on woodland trails. Unmistakable.

Smash a blue jay feather and it will turn black. The blue color is reflected light.

Great Horned Owl:
Striped, a little like a brown tiger.

Mourning Dove:
Grey-brown with a white tip. Another one of the most commonly found feathers.

Crow:
Large, black with a white shaft or quill.

For Further Information: *Watching Birds, An Introduction to Ornithology*, Roger F. Easquer, Houghton Mifflin.