hen the sun goes down, many animals (like us humans) go to sleep for the night. But others are just starting their day. They find food, mate, raise their young, defend their territories, and escape predators between dusk and dawn. We call these animals *nocturnal*. They escape our notice if we don't know what to look and listen for. Nighttime is a great time to explore nature. Ask an adult to take a walk with you when the sun goes down to see, hear, and maybe even smell some of Missouri's creatures of the night.

But First, Make This Field Guide

by Bonnie Chasteen

- 1 Cut out the next two pages along the dotted lines.
- 2 Fold each cutout down the middle.
- **3** Stack the cutouts so the pages are in numerical order.
- 4 Staple the cutouts together along the middle between pages 8 and 9.
- 5 Grab a grown-up and a flashlight, and take this guide outside at night to spot and ID what you see.

You Discover NOCTURNÁ ANIMALS



A Mini Field Guide to Critters That Work The Night Shift

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Striped skunk



This fluffy, cat-sized mammal has a big bushy tail and two white stripes along its back.

Look and Smell: Skunks follow their noses as they hunt and scavenge for insects, small rodents, and dead animals. You may smell them before you see them. When threatened (or hit by a car), they produce a strong scent from glands at the base of the tail. Before spraying, skunks usually stamp their feet and hold their tail high in the air. If you meet a skunk, give it plenty of room, and it will do the same for you. **Where:** Forest borders, brushy field corners, fencerows, and open grassy fields near water statewide.

When: Skunks come out in the evening and early morning hours, usually resting at night and sleeping during the day. **14**

Tips for Watching Wildlife + * at Night +



Scout your observation area with a hiking buddy in the daytime.



Bring a flashlight with fresh batteries. Try covering the lens with red plastic wrap fastened with a rubber band. Most night animals can't see red light. Take along an audio recorder for catching night sounds.



Wear sturdy shoes, and carry a canvas bag with insect repellent, a water bottle, and snacks. When you find a good place to stop, you can use the items and sit on the bag.





And patient and still. It's best to settle down quietly in one place for 20–30 minutes. It takes that long for your eyes to adjust to darkness.

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A Sense of the Dark



Sight

Three special eye adaptations help nocturnal animals see in the dark. First, they have very large eyes. Second, their eyes have more rod cells that allow them to detect shapes, movement, and detail in dim light. Third, they have a mirrorlike layer behind the retina that makes objects seem brighter at night. This layer also creates "eye shine" when an animal's eyes reflect light in the dark.

Sound

In the dark, sharp ears can make the difference between life and death. Nocturnal prey animals like mice have large ears to detect the approach of predators. But nighttime predators also have exceptional hearing.

Smell and Touch

Most mammals can smell far better than humans. Their noses detect information about nearby food, possible mates, and lurking predators (or wildlife watchers).

Night creatures also use touch to gather information. Pressure on sensitive whiskers, fur, feathers, and paw pads helps them navigate in the dark. Some snakes and spiders detect vibrations or body heat to locate their prey.





These medium-sized bats don't cluster in caves like many other bats. They spend their days hanging alone from tree branches. At night, they fly off to eat lots of insects.

LOOK: During the day, you might spot a red bat hanging by one foot in dense foliage. When dusk falls, search the sky for their flickering silhouettes.

Where: Statewide in forests, along the edge of woodlands, and near hedgerows.

When: Red bats feed in the early evening hours any time the temperature rises above 50 degrees.



With green, leaf-shaped wings, this relative of crickets and grasshoppers avoids daytime predators by hiding high in the treetops, where it feeds on leaves.

Listen: On hot summer nights, males rasp their finely textured wings together, creating a loud Katydid! Katy didn't! to attract mates. Where: Treetops statewide.

When: July-October



You can't mistake this stocky little mammal for any other. It has a distinctive black mask, bushy ringed tail, and naked black hands and feet. Males and females look alike.

Look and Listen: Raccoon families are fun to watch, and their chatter sounds like a mix of frog calls, bird chirps, and pig grunts.

Where: Statewide, usually in wooded areas near water. They also live in towns, where they can become pests at smelly garbage cans and pet-food bowls.

When: You may spot them year-round, but you have a better chance of watching families at play from late spring through fall.

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UDOSSUI



This is America's only marsupial (*mar-SOUP-ee-uhl*). The mother carries blind, incompletely developed babies in a belly pouch until they can see and eat on their own.

Look: Opossums have long, pointed snouts. Their ears are small and slightly rounded. All four paws are naked and handlike. The tail is naked and flexible enough to wrap around tree limbs, allowing the possum to hang upside-down. **Where:** Almost anywhere in Missouri, especially in wooded areas near farms or in towns near smelly garbage cans and pet-food bowls.

When: Year-round, except when it's really cold and snowy.

Bullfrod



Missouri's largest frog has been known to reach 8 inches from snout to hind end. This big amphibian stalks the night, eating nearly anything it can get in its mouth, including insects, spiders, crayfish, fish, birds, small mammals, and other bullfrogs!

Listen: The bullfrog's call is a deep, throaty *jug-a-rum*, *jug-a-rum* that can be heard from more than half a mile away. **Where:** Just about any place that holds water, anywhere in the state. Missouri's most aquatic kind of frog spends most of its time in or near lakes, ponds, rivers, swamps, and marshes.

When: During breeding season, mid-May through June.





This member of the dog family can be gray or dull yellow. It's bigger than a fox but smaller than a wolf. A coyote's big ears, sharp eyes, and long nose help detect enemies and prey.

Listen: A long burst of howling and yipping tells you coyotes are in the area.

Where: Throughout the state, but most common in northern and western Missouri grasslands. When: You may see it during the day, but you're more likely to hear it at night. Howling peaks during the breeding season in February and March.



This little frog has warty skin that varies in color from green to gray to brown. The sticky pads on its fingers and toes help it cling to trees and other vertical surfaces like your window screens!

Listen: The gray treefrog's call is a musical trill. **Where:** These treefrogs live in wooded areas along rivers and swamps. Because they also rest in the nooks and crannies of farm buildings, porches, decks, or empty birdhouses, you may hear them near your house. **When:** During breeding season from early April to early July.

5

Luna moth



Luna moths have large green wings (up to 4 inches wide) with eyespots that trick predators into thinking they are scary rivals. Adults don't eat at all and live only a few days to mate and lay eggs.

Look: The word *luna* is Latin for "the moon." It's no wonder this beautiful moth comes out after the sun goes down. **Where:** In town it often flutters around porch lights. In the wild, it lives in and near woodlands, where their larvae can feed on walnut, hickory, persimmon, and sweet gum trees. **When:** Adults appear from early April through August. Around midnight, females "call" males by emitting airborne chemicals called pheromones (*FER-uh-moans*), which the male's highly sensitive, featherlike antennae can pick up. **6**



These ground-nesting birds are related to the nighthawk. They're about the same size and look similar, but in flight, the whip-poor-will's wings and long tail appear rounded instead of pointed. Their speckled feathers blend into the forest floor, keeping them hidden during the day.

Listen and look: The easiest way to tell a whip-poor-will from a nighthawk is by its location and its call. The whip-poorwill prefers to live in the woods, and it calls its name loudly hundreds of times a night. You won't see it unless you're hiking in the woods and happen to startle it from its nest. Where: Statewide in forests and open woodlands. When: During breeding season April through September.

Barred owl



This is Missouri's only large (21 inches from beak to tail tip), brown-streaked, dark-eyed owl. As with most owls, barred owls keep populations of prey animals such as rodents and reptiles in check.

Listen: Though you won't often see this owl, you can easily identify its call. Its classic series of hoots sounds like, "Who cooks for you? Who cooks for you all?" Where: Statewide along forested streams, lakes, rivers, and swamps, particularly in deep woods with big timber. Also in wooded parks and neighborhoods with large, dead trees. When: Year-round, but more frequently during their breeding season, February through March.



This night-flying bird has a white mark on the underside of each wing, and in flight its wings appear pointed and the tail appears forked.

Listen and look: If you hear a harsh, nasal *peent* overhead at dusk, look up. You'll see a nighthawk flying erratically with quick flaps, glides, and darting movements to catch flying insects. The male's courtship display is dramatic. He dives straight toward the ground, his feathers making a loud whirring sound, then swoops back into the sky. Where: Around city streetlights (which attract flying insects). When: Arrive to Missouri in late April; in September, waves of them pass through as they migrate to South America.