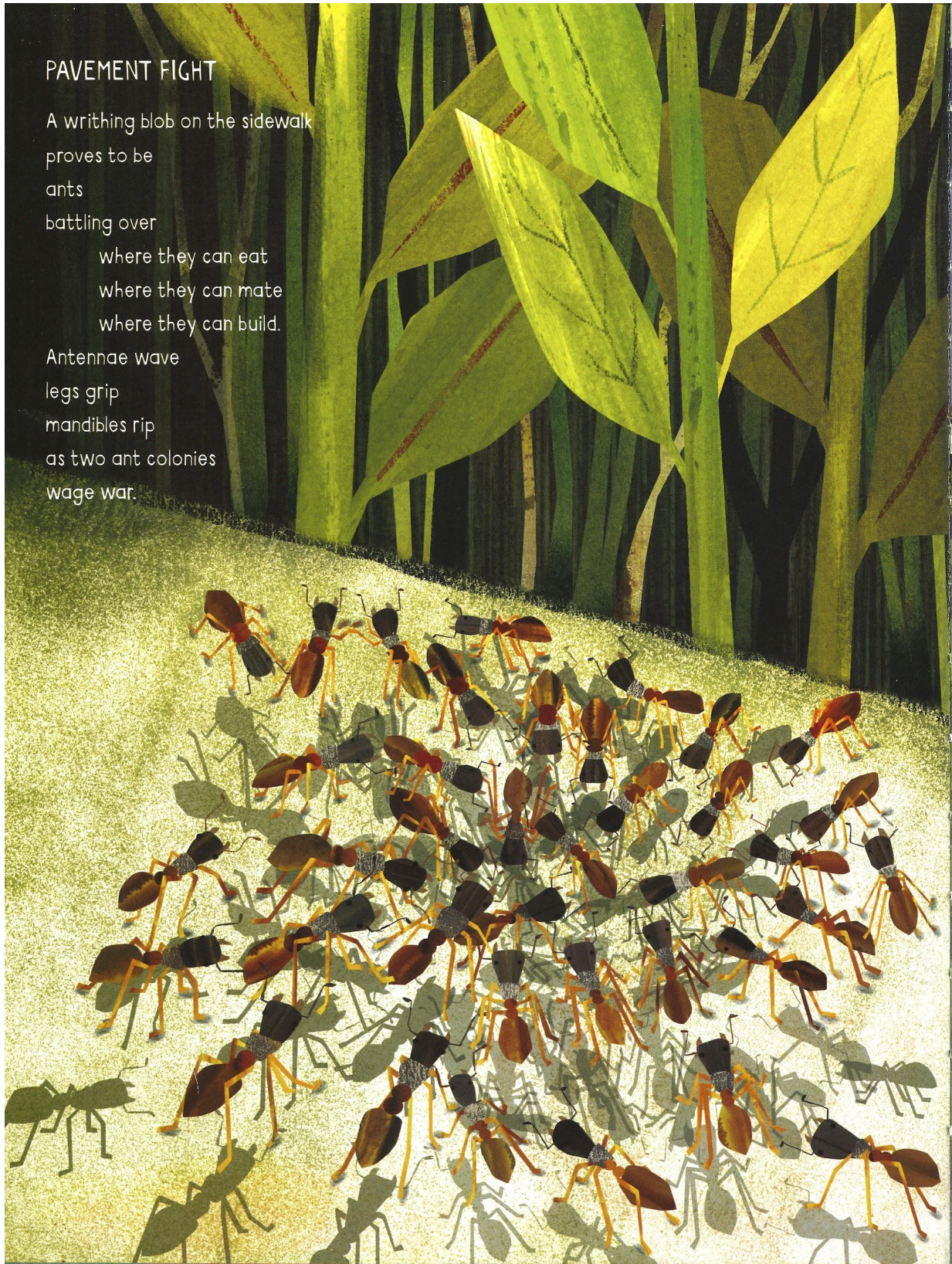


Ants

PAVEMENT FIGHT

A writhing blob on the sidewalk
proves to be
ants
battling over
 where they can eat
 where they can mate
 where they can build.

Antennae wave
legs grip
mandibles rip
as two ant colonies
wage war.



Writing U2 W1 D3

Ants

Some insects of the ant, wasp, and bee group are highly social, with many generations and different kinds of workers living together for their mutual benefit.

VELVET ANT **1 in.**
This insect is not really an ant but a wasp—a *hairy, red, wingless* female looking for insect pupae to parasitize with her eggs. Also called “cow killers,” velvet ants pack a painful wallop of a sting. Male velvet ants have wings and no stingers.

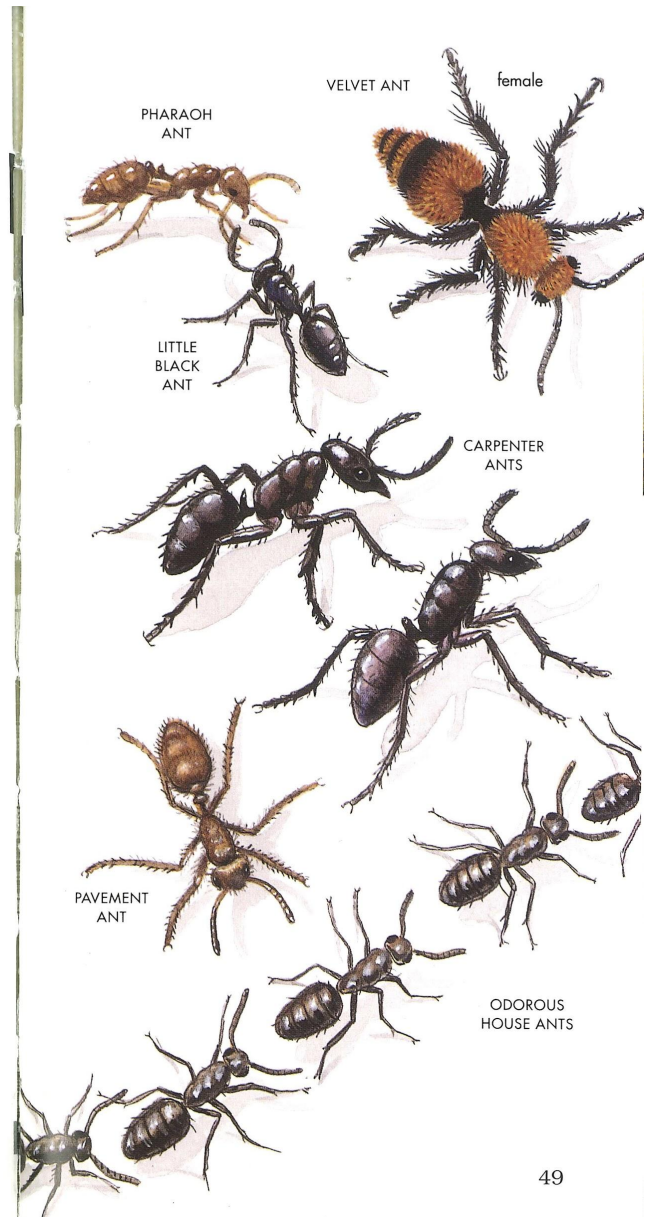
PHARAOH ANT **$\frac{1}{16}$ in.**
Warmth-loving and nonbiting, *tiny, brown* pharaoh ants are found almost anywhere people give them a home. Large colonies simply divide and, linked by odor trails, establish sprawling communities of millions of workers and many queens.

LITTLE BLACK ANT **$\frac{1}{16}$ in.**
The Little Black Ant nests outside our homes, below ground, with the colony entrances marked by small craters. In the South it occasionally moves indoors. It likes sweet foods.

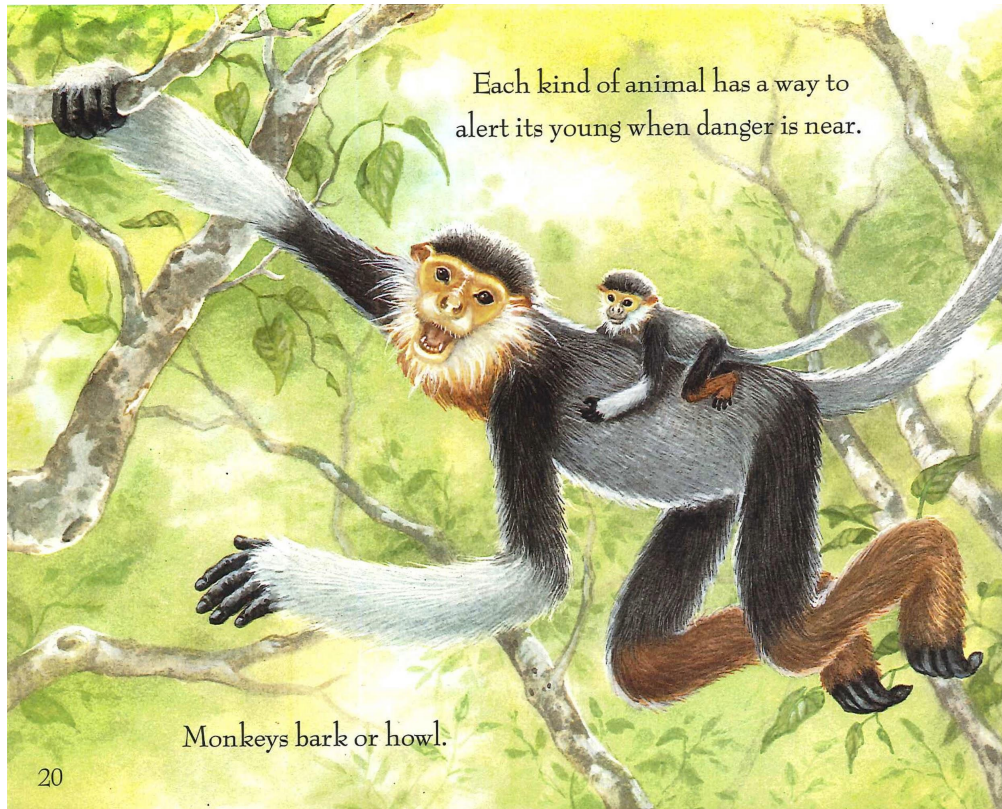
CARPENTER ANT **$\frac{1}{2}$ in.**
East of the Rockies, *large, black* carpenter ants (bigger and light brown in Texas) nest in holes gnawed in dead wood, including our homes, where they can do a lot of damage. In large numbers, they smell of formic acid, which they use as a weapon and a defense. A nip with a spritz of formic acid in it makes a painful, hard swelling.

PAVEMENT ANT **$\frac{1}{8}$ in.**
Brown, hairy pavement ants usually nest under stones, asphalt, and concrete. They often invade houses, especially in summer.

ODOROUS HOUSE ANT **$\frac{1}{8}$ in.**
The brown to black Odorous House Ant travels in lines. When other food sources fail, it enters our homes. If crushed, it gives off a *coconut odor*.



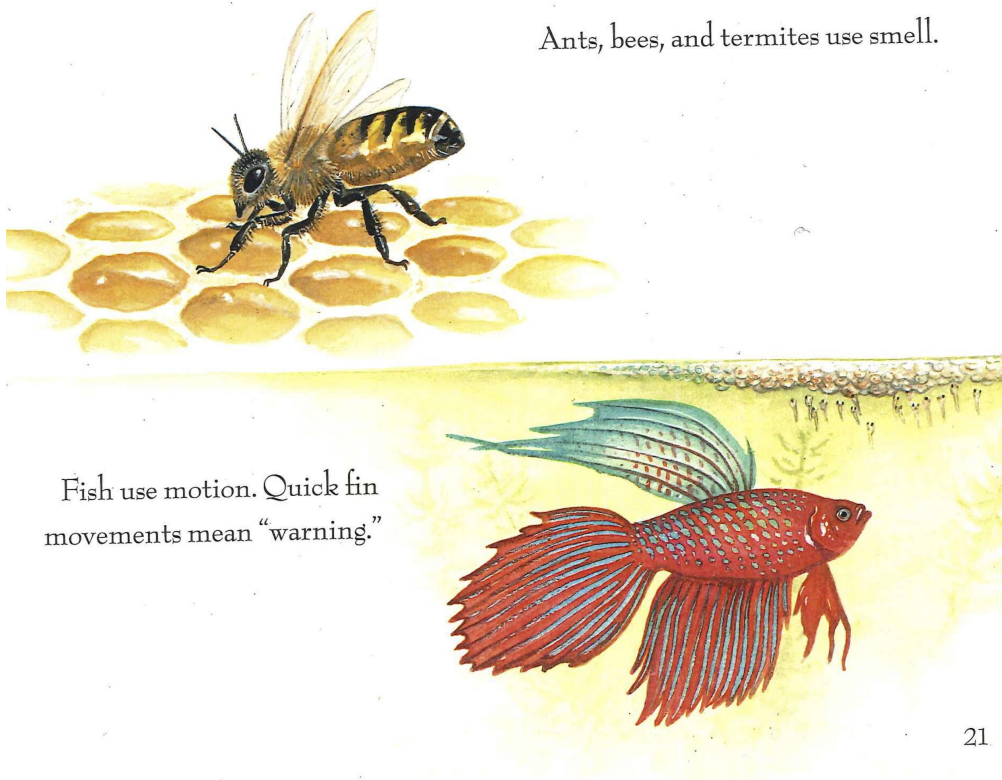
Ants



Each kind of animal has a way to alert its young when danger is near.

Monkeys bark or howl.

20



Ants, bees, and termites use smell.

Fish use motion. Quick fin movements mean "warning."

21

Writing U2 W1 D3

Raccoons

RINGTAIL

To 3½ ft.

In fast-growing southwestern areas where cities and suburbs overlap rocky or wooded land, you may catch a glimpse of this shy, slender, two-pound member of the raccoon family. Also known as the cacomistle, this mammal, with its *long, banded tail*, normally eats insects, small animals, plants, and fruit. It is an extraordinarily skilled climber, with sharp claws and hind feet that can rotate 180 degrees like a squirrel's. Dog food left outside, rodents, and fruit-bearing decorative trees can attract these nighttime visitors.

RACCOON

To 3½ ft.

Distinctive and clever, this nocturnal, *black-masked, ring-tailed* mammal has exploited the presence of humans. It has ranged far north and west from its original southern home. The extremely dexterous Raccoon can turn knobs, open latches, open and overturn garbage pails, pry open ventilation louvers, and brazenly use pet doors to enter houses. With its assertive hustle, rolling gait, and raised, handsome fur, it can look very formidable, and it will fight and bite fiercely if it must. Raccoons often carry the rabies virus and should never be approached.

MINK

To 28 in.

The Mink is cursed with a luxurious, *glistering, dense, brown coat*; 100 of these small, *white-throated* weasels give up their lives and pelts to make one full-length mink coat. Mink are now raised commercially for this purpose. It is a surprise to learn that this *long-bodied, short-legged* carnivore can be found everywhere in North America where there are waterways to hunt along, even in urban areas. Mink swim well, preying on fishes, frogs, muskrats, snakes, and waterfowl. Each Mink marks its personal shoreline circuit with strong-smelling musk.

RINGTAIL



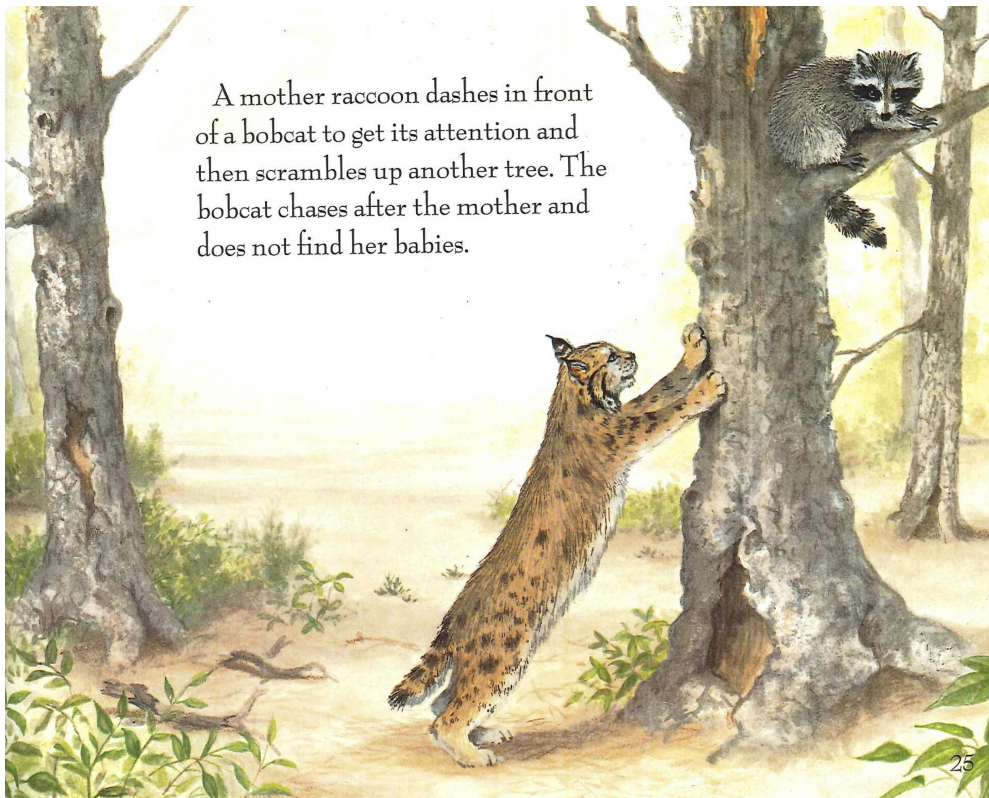
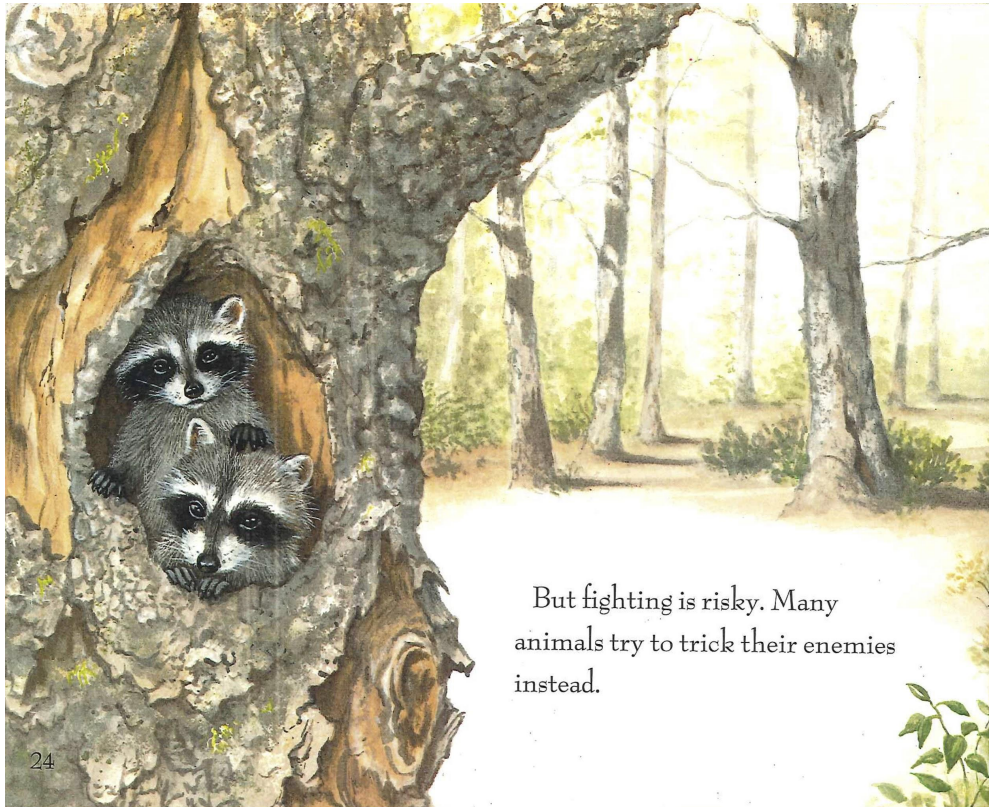
RACCOON



MINK



Raccoons



Raccoons



A raccoon can **climb**! It moves up and down by using its feet. Its **front** and back feet work like hands.

Snakes

Many snakes are found in developed areas, and a few thrive even in urban settings. Snakes use their tongues to collect odor particles from the air. All snakes are carnivorous and swallow their prey whole.

EASTERN HOGNOSE SNAKE To 3³/₄ ft.

This nonpoisonous, blotched or dusky snake with its *upturned nose* is found east of the Rockies. It does its best to look dangerous by opening its mouth wide, spreading its neck in a menacing hood, and tightly coiling its tail in a good imitation of a rattlesnake. If these ploys fail, it rolls over and plays dead.

MILK SNAKE To 4 ft.

There are advantages to looking dangerous even if you are a harmless snake simply hanging out under trash and logs, hunting other reptiles and rodents. The widespread *reddish, yellow, and black banded* Milk Snake resembles the truly dangerous coral snake (see page 76).

NORTHERN WATER SNAKE To 4 ft.

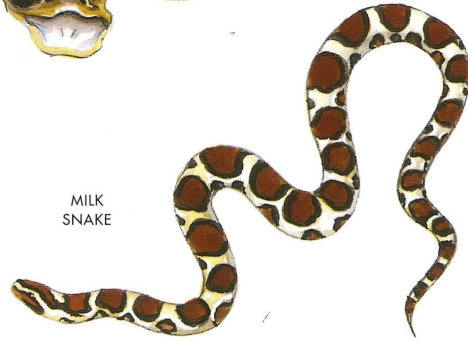
From the Mississippi basin eastward, aggressive water snakes follow rivers and ponds into developed areas. They are active night and day, hunting frogs, small fish, and rodents. The muted, vaguely *diamond-shaped* markings look a little like those of poisonous diamondback rattlesnakes and Cottonmouths. Water snakes are not poisonous, but they can give a nasty bite.

PLAINS GARTER SNAKE To 3¹/₂ ft.

Reassuringly *striped from end to end* in black and variously flecked yellow, the widespread and familiar garter snakes resemble no poisonous snakes in North America. Semiaquatic, they often follow waterways into urban areas. If caught, they will release a foul-smelling musk and may try to bite—but they quickly calm down.



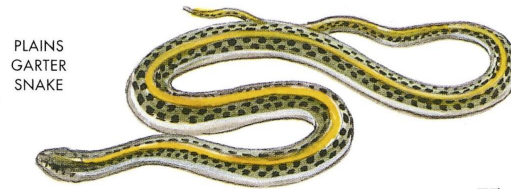
EASTERN
HOGNOSE
SNAKE



MILK
SNAKE



NORTHERN
WATER
SNAKE



PLAINS
GARTER
SNAKE

Snakes

Although 92 percent of North American snakes are harmless, a few are dangerous. Remember, though, that venomous snakes are trying as hard to avoid a confrontation as you are. Just watch where you put your hands and feet if you are in snake country.

CORAL SNAKE **To 3 ft.**
Coral Snakes have powerful venom that affects the central nervous system. Red, yellow, and black banded, these snakes of the coastal south and far Southwest resemble many harmless snakes, like the Milk Snake. Various rhymes help to correctly identify this snake, but none is completely accurate. Remember “black head, you’re dead” and “red touches yellow, kill a fellow.” Although a few harmless snakes have one or the other of these characteristics, you’re wise to keep your distance from any black-headed snake whose red and yellow bands touch.

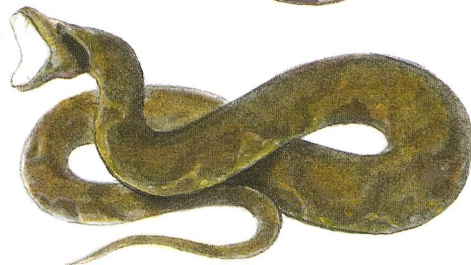
COPPERHEAD **To 4 ft.**
Bulging cheeks and diamond-shaped markings identify members of the poisonous pit viper family. The Copperhead, found in the southeastern United States, has a reddish tinge; its “diamonds” are the pale markings rather than the darker ones.

COTTONMOUTH **To 6 ft.**
Another pit viper, the Cottonmouth, also called the water moccasin, lives in waterways, which it might follow into urban areas in the Southeast. Aggressive and very poisonous, this murky-colored snake warns by opening its mouth wide, showing the white inside. It swims with its head lifted well above the water.

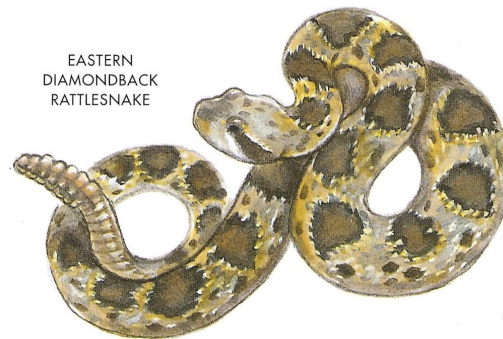
EASTERN DIAMONDBACK RATTLESNAKE **To 8 ft.**
Our largest and most dangerous snake, this rattler has a large triangular head, diamond patterns and a buzzing tail rattle. Watch for it in deserts, rocky areas, piney flatlands, and abandoned buildings.



COTTONMOUTH



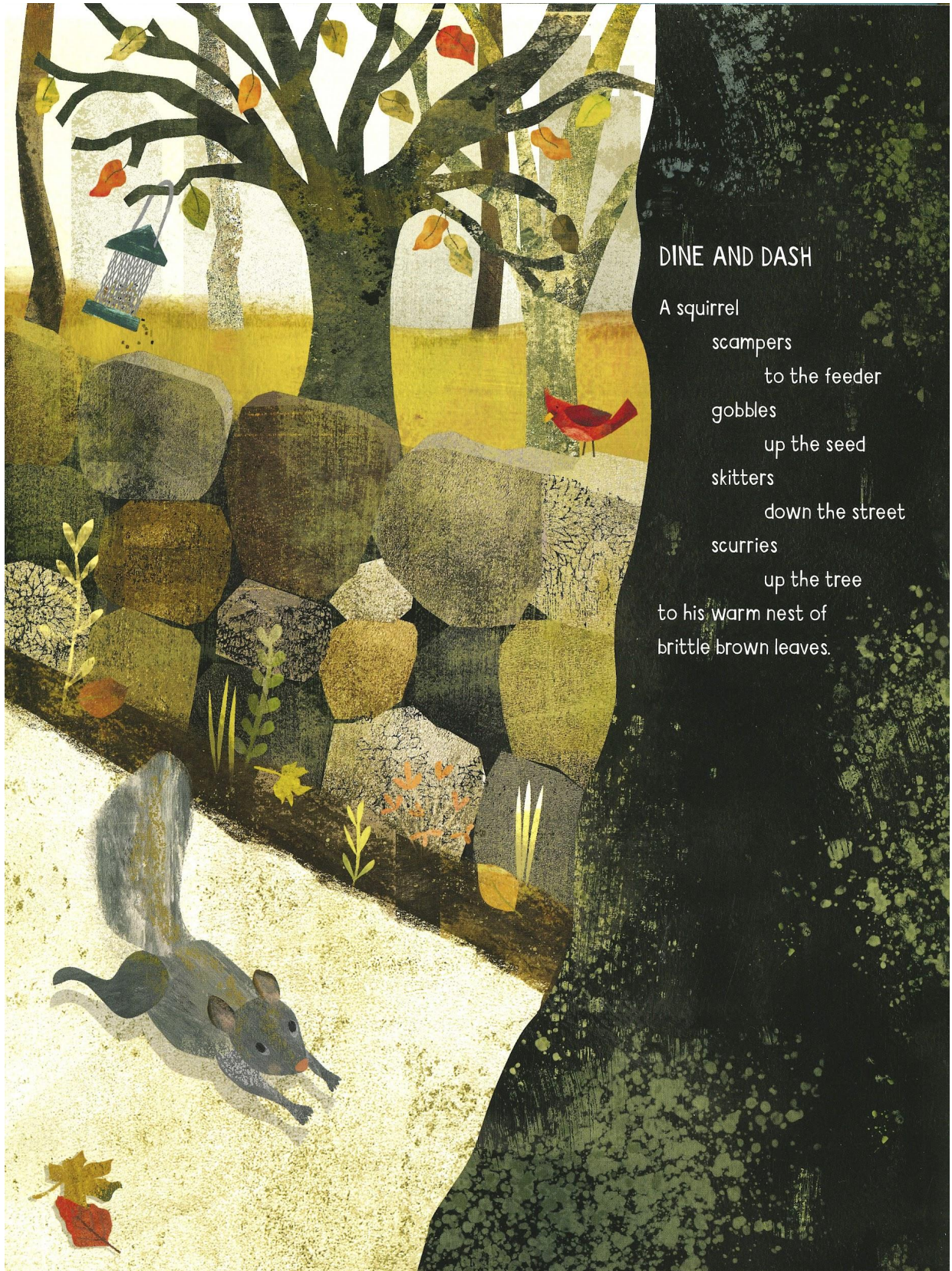
EASTERN DIAMONDBACK RATTLESNAKE





A snake can **slither**! It wiggles from side to side on the ground.

Squirrels



DINE AND DASH

A squirrel

scampers

to the feeder

gobbles

up the seed

skitters

down the street

scurries

up the tree

to his warm nest of

brittle brown leaves.

Writing U2 W1 D3

Squirrels

13-LINED GROUND SQUIRREL To 14 in.

White stars and stripes distinguish this lovely little red-brown ground squirrel. It has many shy country cousins, but this animal is attracted to golf courses and mowed roadsides from the Texas Gulf coast north to the Canadian prairies.

GRAY SQUIRREL To 26 in.

Taking advantage of our bird feeders, our trash, our briefly abandoned chocolate bars, and our shade trees—thoughtfully linked by utility wires—the opportunistic Gray Squirrel is familiar to everyone in the eastern United States and some places farther west. Its big, bushy tail serves as a balance, a blanket, and a warning flag.

WHITE-FOOTED MOUSE To 9 in.

There are more than 1,000 species of rats and mice in the world. Only a few of these have important bad effects on humans (see page 106), and the eastern White-footed Mouse is not usually one of them. It is a “country mouse” who only occasionally drops by our houses for a visit during cold weather. It resembles many of its wild cousins throughout North America.

MEADOW VOLE To 7 in.

Widespread throughout all our cooler regions, this short-tailed, blunt-nosed field mouse has been called a machine for turning grass into meat. Living outside anywhere there is grassy cover, it often falls prey to our cats.

MUSKRAT To 30 in.

This large aquatic vole, with its long, nearly hairless tail that helps it swim, follows waterways into urban areas throughout North America. Feeding on water plants, frogs, fish and young birds, it builds lodges using plant materials and mud, instead of wood as a beaver does. About 8 million muskrats are trapped each year for their waterproof, shiny, dense pelts.



13-LINED
GROUND
SQUIRREL



GRAY
SQUIRREL



WHITE-FOOTED
MOUSE

MEADOW VOLE



MUSKRAT

Sea Stars

ECHINODERMS

These ocean-dwelling animals have radial symmetry, meaning they have several (usually five) similar parts radiating from a central hub. They include the spiny-skinned sea stars, sea urchins, and their kin. Echinoderms are thought by some to be organisms that gave up a livelier life early in their evolutionary history in favor of a more sedentary one. Their larvae are similar in some ways to the embryos of animals with backbones. This means that sea stars may be a little more closely related to humans than they are to animals without backbones, such as arthropods. With this provocative thought in mind, we can admire them also for their slow-moving mastery of the element in which they live: water. They move by controlling the water pressure inside their bodies—without any brains at all.

NORTHERN SEA STAR **5 in.**

These animals are commonly known as starfish, but they are not really fish at all. On the East Coast, *reddish* Northern Sea Stars can be seen by the hundreds hunting for mussels, their favorite food, on rocks and pilings and in tide pools. The *pale spot*, called a madreporite, controls the flow of water that lets the sea star move its feet. If a predator takes an arm or two, the limbs will grow back.

LEATHER STAR **5 in.**

The garlicky smelling, *leathery* feeling Leather Star lives on the West Coast. Like all echinoderms, the Leather Star uses water pressure to coordinate the actions of its hundreds of tube feet. The Leather Star moves slowly on sea walls, rocky shores, and pilings in search of anemones and sea cucumbers to eat.

