

Wetlands



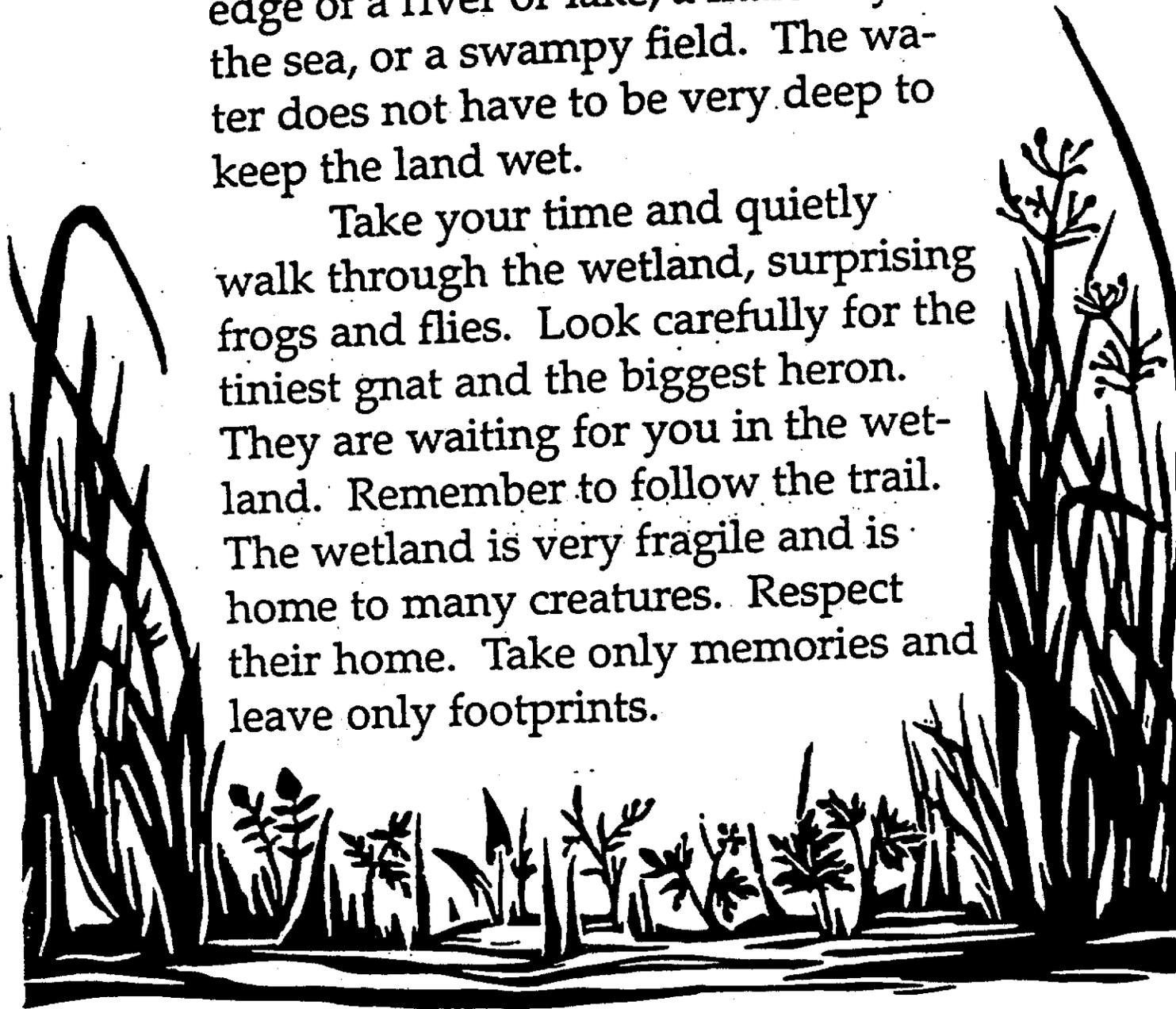
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wetlands

Take this book and follow me. I will show you a place not far away where the land meets the water. You will know it when you see it: the wetland. A wetland usually remains wet all year long. It can be at the edge of a river or lake, a marsh by the sea, or a swampy field. The water does not have to be very deep to keep the land wet.

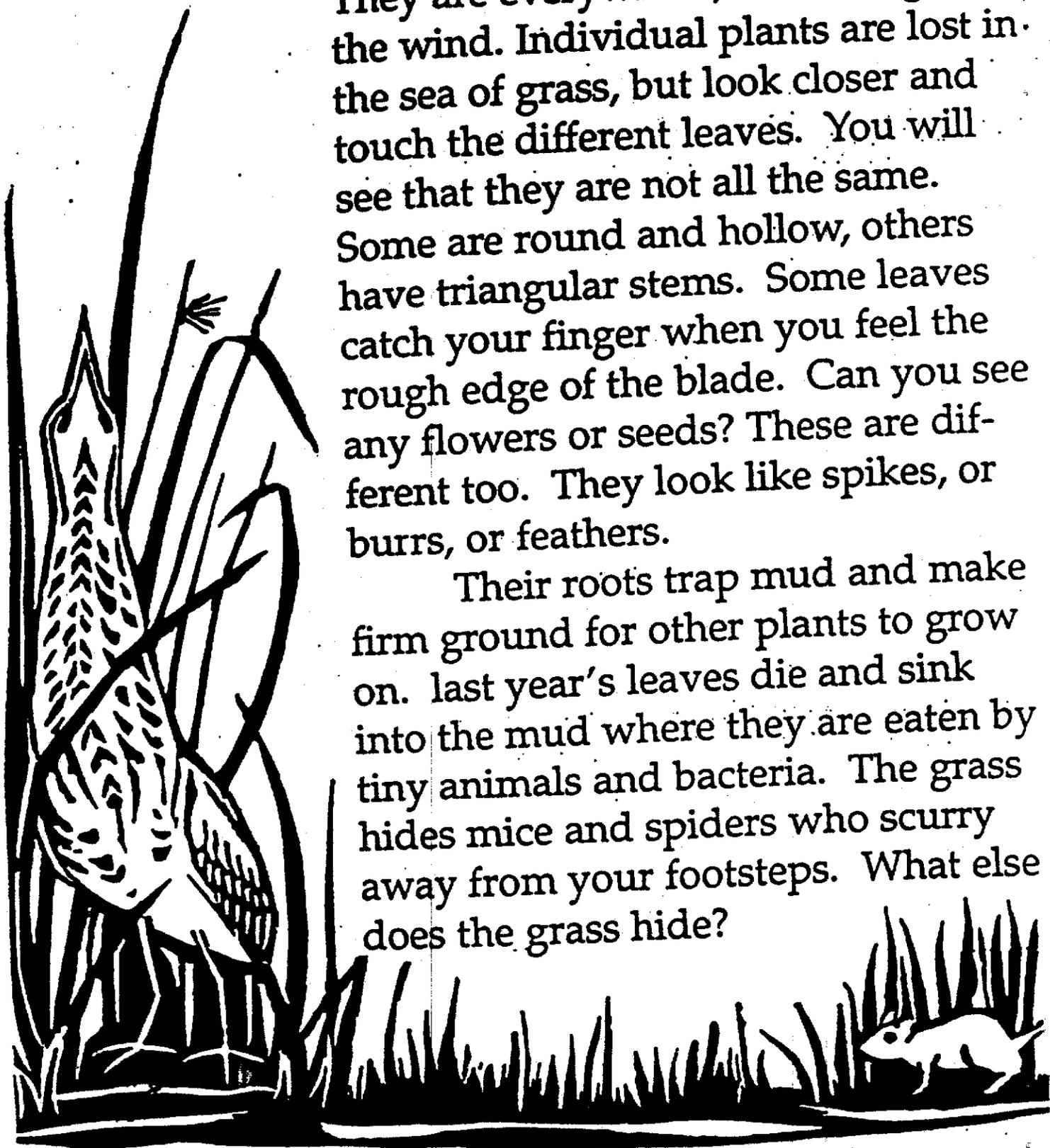
Take your time and quietly walk through the wetland, surprising frogs and flies. Look carefully for the tiniest gnat and the biggest heron. They are waiting for you in the wetland. Remember to follow the trail. The wetland is very fragile and is home to many creatures. Respect their home. Take only memories and leave only footprints.



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At first you just see grasses. They are everywhere, all leaning in the wind. Individual plants are lost in the sea of grass, but look closer and touch the different leaves. You will see that they are not all the same. Some are round and hollow, others have triangular stems. Some leaves catch your finger when you feel the rough edge of the blade. Can you see any flowers or seeds? These are different too. They look like spikes, or burrs, or feathers.

Their roots trap mud and make firm ground for other plants to grow on. last year's leaves die and sink into the mud where they are eaten by tiny animals and bacteria. The grass hides mice and spiders who scurry away from your footsteps. What else does the grass hide?





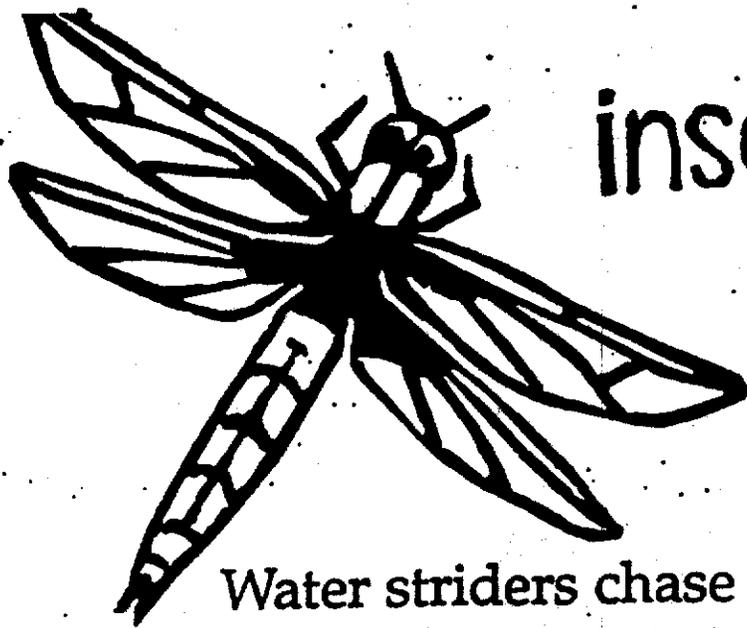


plants

Cattails like their roots to be covered with water. They stand long and tall like flags marking the deeper parts of the marsh. Their flat blades fold down and turn brown in the winter. Tight seed tails burst in early spring and send fluffy seeds into the wind. Each seed looks like a tiny cattail floating upside down.

Buttercup and wild parsley grow around cattails. Their leaves look alike from far away, but get closer and you can tell them apart. Buttercup leaves form a three-fingered hand. Parsley branches like a straight tree. Insects crawl on and under their leaves.





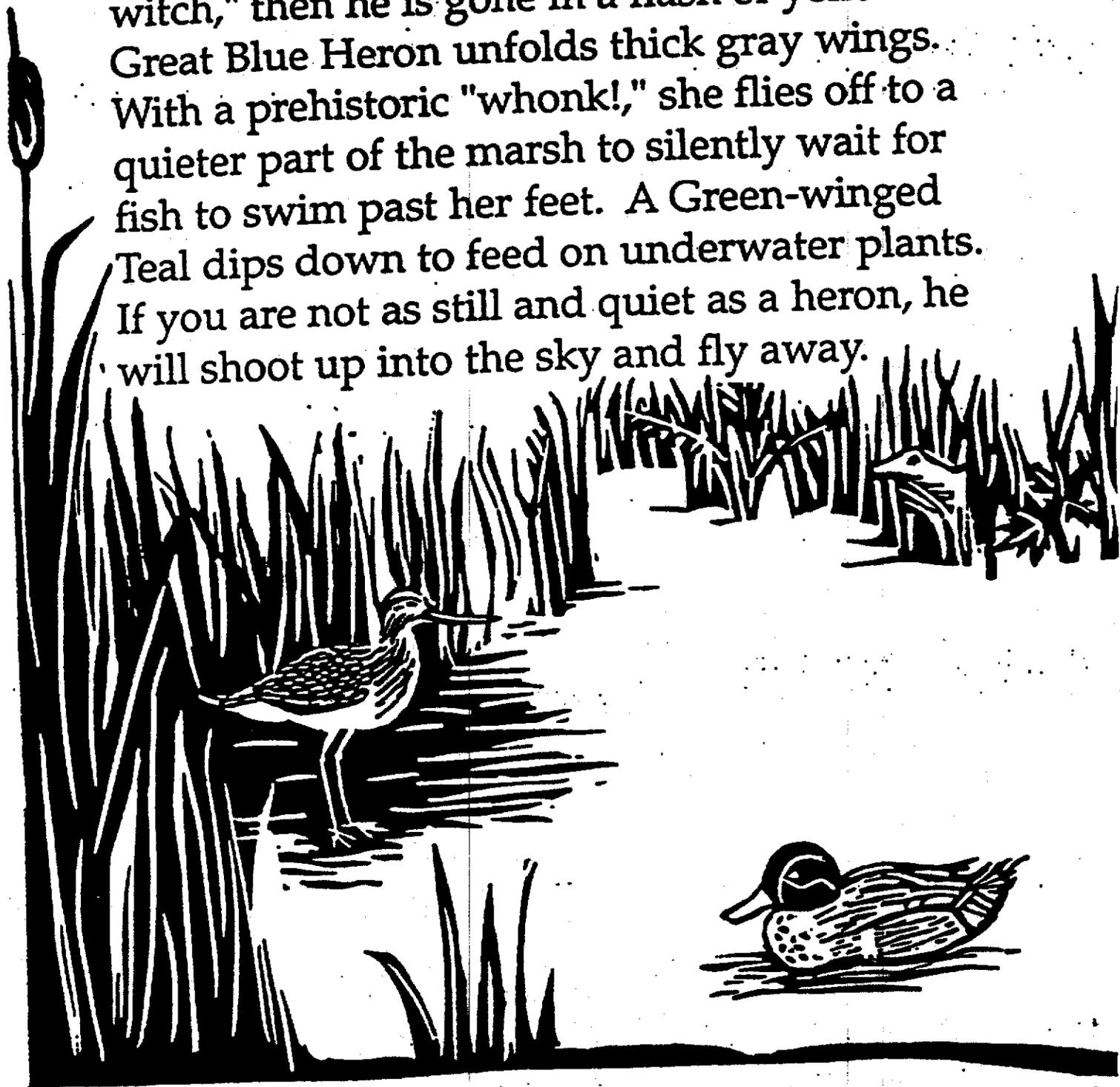
insects

Water striders chase each other on top of the water's surface and dart after prey that cannot fly away with wet wings. Young mosquitos hang upside down from the surface of the water. They breathe air through a tiny straw at their tail. Wave your hand over them and they will wiggle deep into the water trying to escape from your shadow. The caddisfly lives under water for part of its life. It builds a house out of bits and pieces found on the bottom. Dragonflies zip past, darting after flies. Their young look like tiny swamp monsters. They crawl out of the water on to a stem when they are ready to fly. Legs grab hold of the stem and the head expands to burst through the old shell. New wings unfold and the dragonfly zips off leaving an empty skeleton behind. If you look carefully, you might find a hollow monster still clinging to a blade.

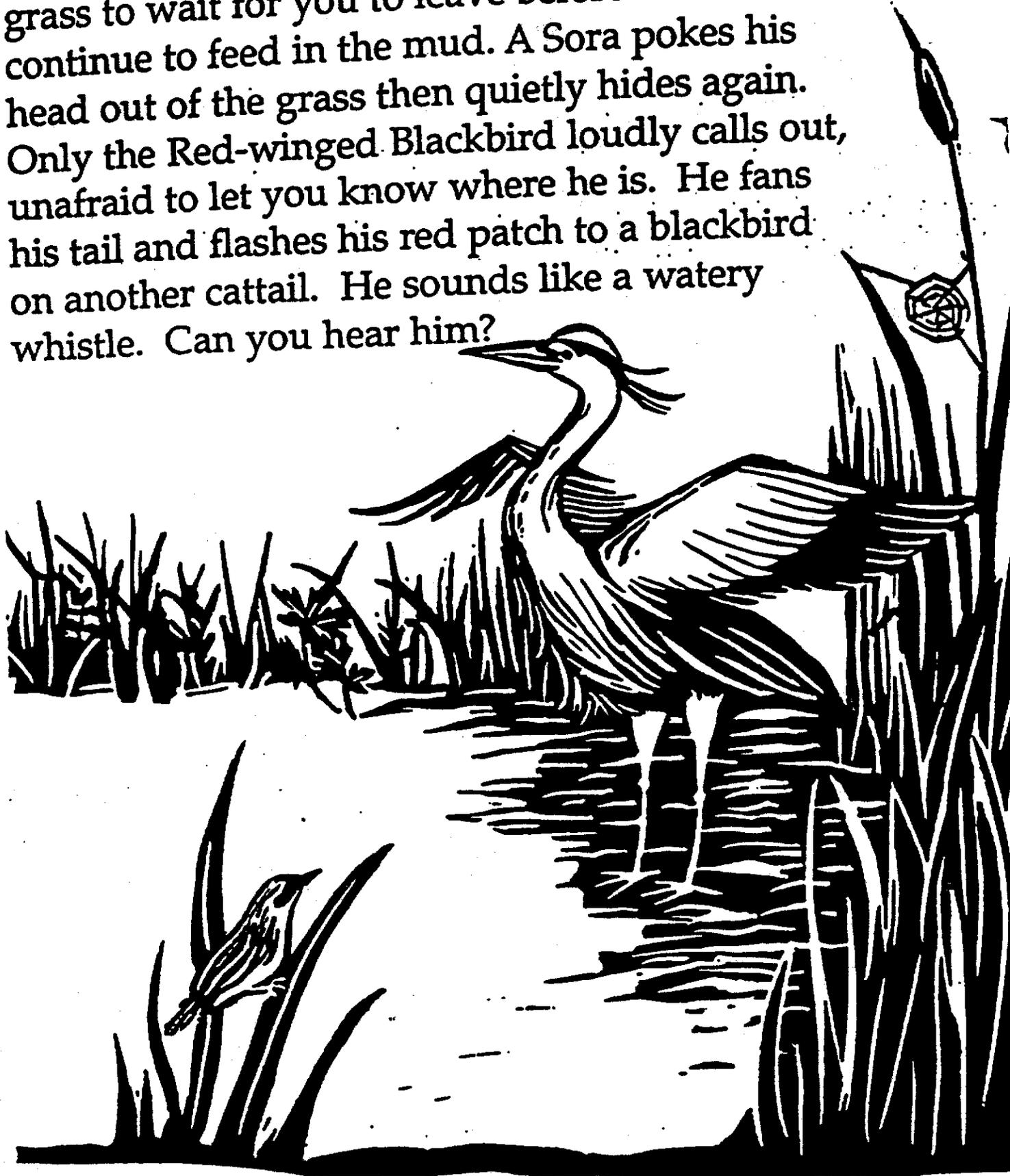


birds

The yellowthroat sticks you up with his bandit face and cries out "witchity-witchity-witch," then he is gone in a flash of yellow. A Great Blue Heron unfolds thick gray wings. With a prehistoric "whonk!," she flies off to a quieter part of the marsh to silently wait for fish to swim past her feet. A Green-winged Teal dips down to feed on underwater plants. If you are not as still and quiet as a heron, he will shoot up into the sky and fly away.



A Greater Yellowlegs sneaks back into the grass to wait for you to leave before she will continue to feed in the mud. A Sora pokes his head out of the grass then quietly hides again. Only the Red-winged Blackbird loudly calls out, unafraid to let you know where he is. He fans his tail and flashes his red patch to a blackbird on another cattail. He sounds like a watery whistle. Can you hear him?





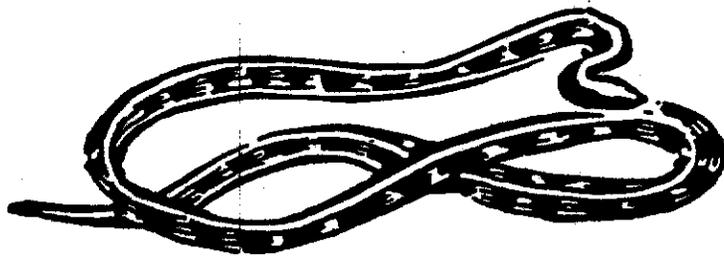
mammals

A deer browses on alder leaves. Mice and voles make tunnels in thick grass roots. Coyotes prowl, slinking across open spaces. A muskrat turns cattails into a mounded nest and cuts through the water with his flattened tail. Raccoons wash their hands and food at the water's edge. These animals disappear into the colors of the wetland when you walk by. Can you find them? Do you see the grass that was nibbled by the muskrat, or the tracks the raccoon left in the mud? Look closely, they are out there in the wetland.



amphibians and reptiles

In April the frog song hurts your ears. Jelly masses of eggs cover the water. A tiny black dot in each is the only sign of the tadpole who will swim in May. A Painted Turtle lumbers out of the water. Claws grab hold of underwater roots and its neck strains forward. A snake slips onto the water and slides over it, fluid as a wave.

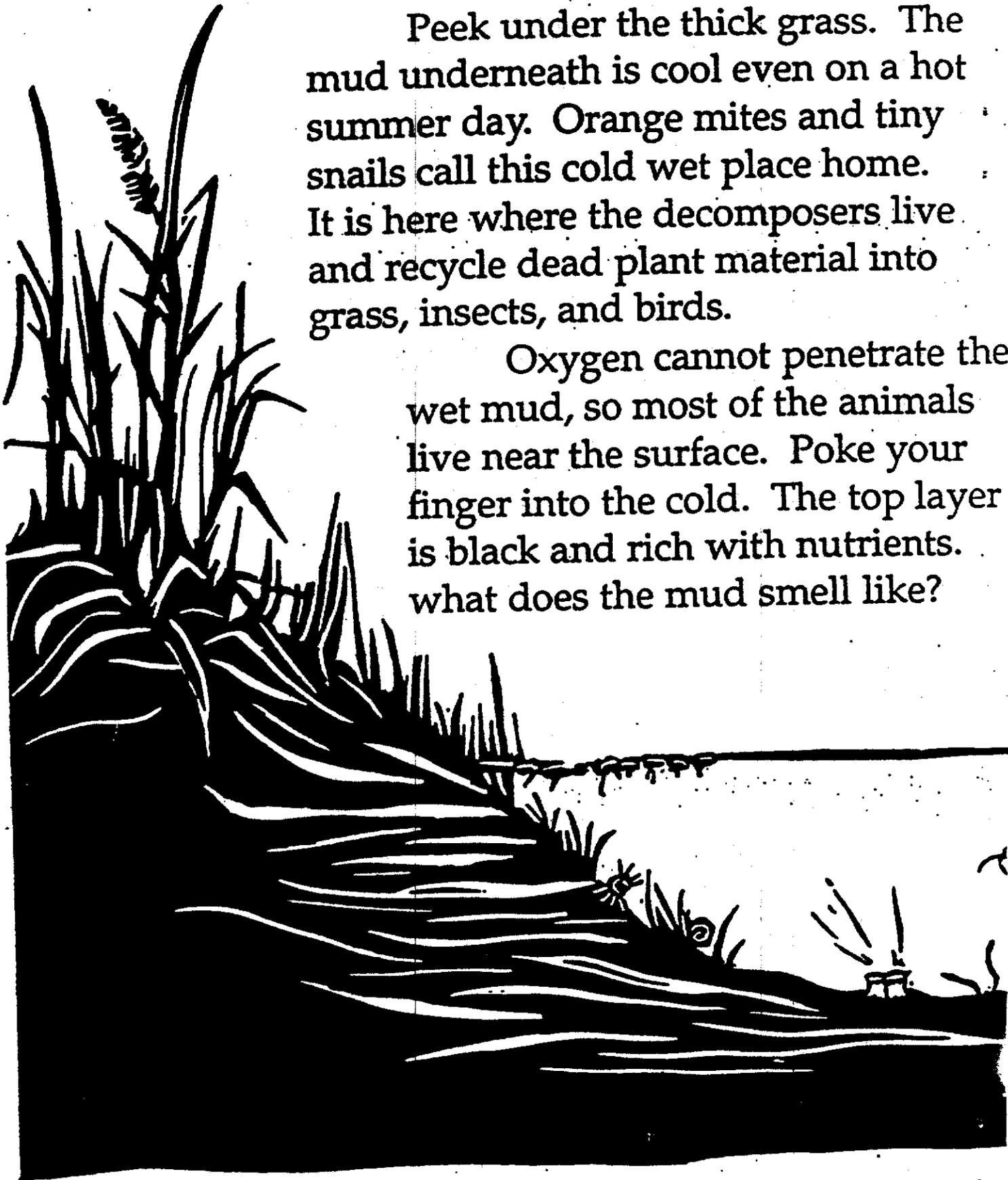




mud

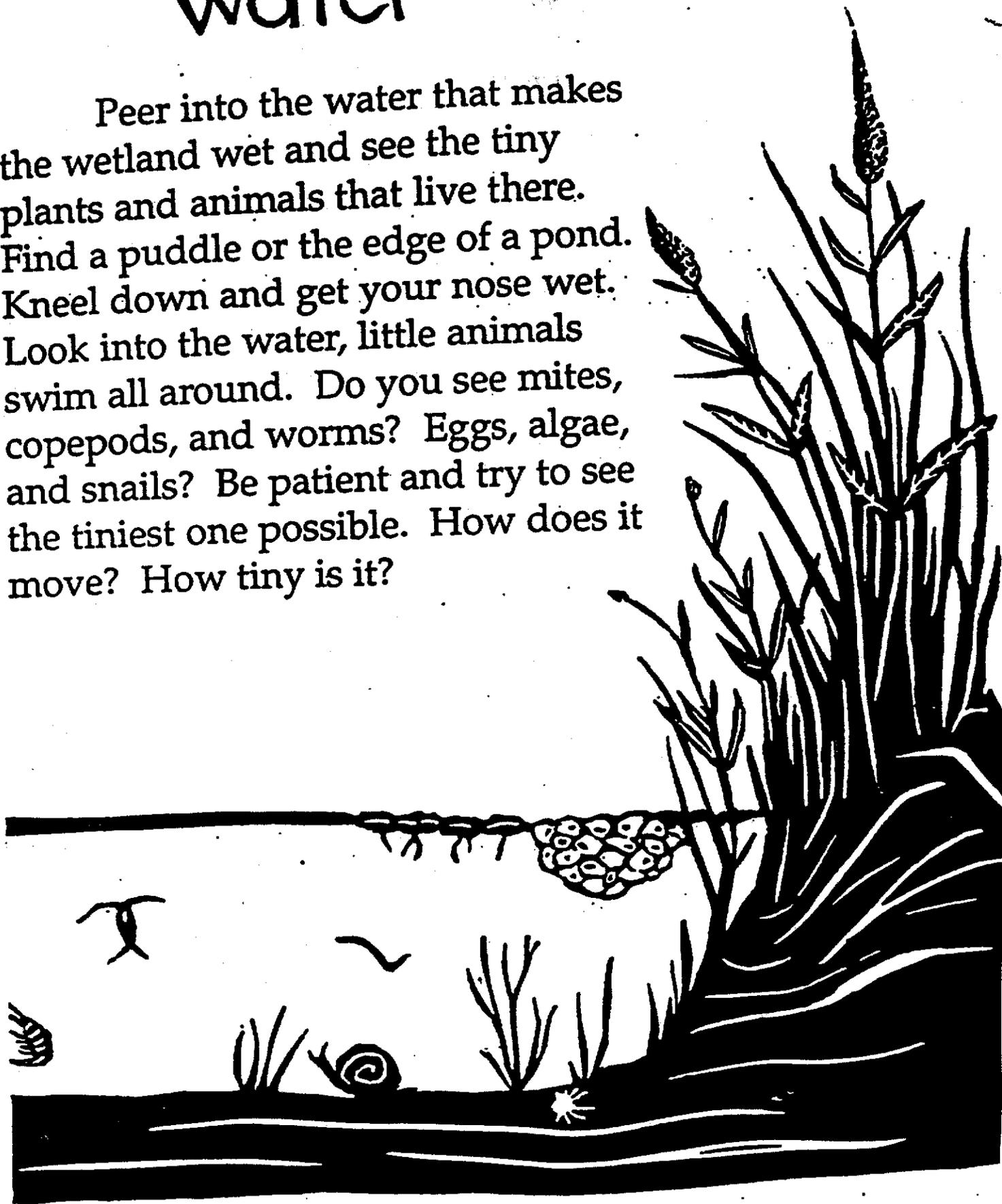
Peek under the thick grass. The mud underneath is cool even on a hot summer day. Orange mites and tiny snails call this cold wet place home. It is here where the decomposers live and recycle dead plant material into grass, insects, and birds.

Oxygen cannot penetrate the wet mud, so most of the animals live near the surface. Poke your finger into the cold. The top layer is black and rich with nutrients. what does the mud smell like?



water

Peer into the water that makes the wetland wet and see the tiny plants and animals that live there. Find a puddle or the edge of a pond. Kneel down and get your nose wet. Look into the water, little animals swim all around. Do you see mites, copepods, and worms? Eggs, algae, and snails? Be patient and try to see the tiniest one possible. How does it move? How tiny is it?

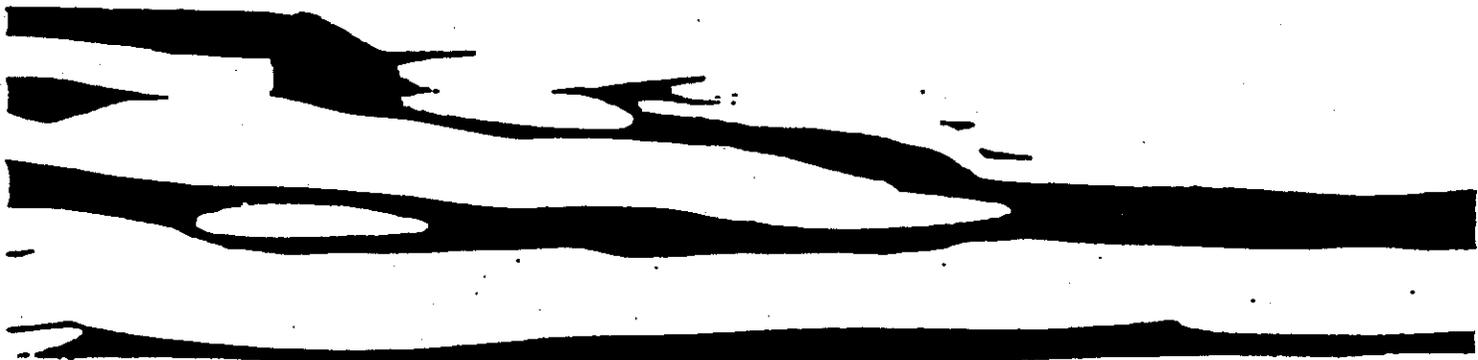




wetlands

The water of the wetland is hushed by whispering grasses. Can you hear the faint sound of water gently seeping? You are standing in a wetland. Look around. What else do you hear? What can you see? There is water everywhere from heavy dewdrops to oceans.

Wade through the tall grass. Smell the cool, moist air. Listen for a bird to flap its wings as it flies away. Find a special place to sit and watch, draw a picture, or write a story, then go home and share it with someone else. Tell them about the wetland that you found; what it looked like; what it felt like when the wind rustled the thick reeds that you hid behind as you hunted like a heron, long, silent, and still.



projects to explore

Write poems, diaries, stories, plays, and essays about wetlands.

Hike and explore around a wetland or watershed.

Sketch, draw, color, or paint wetland scenes. Visit the same scene in different seasons.

Compose songs about wetlands and nature.

Make wind instruments from hollow reeds found in wetlands.

Study a wetland plant or animal.

Keep a journal of a wetland, observing daily, weekly, or monthly changes.

Invite friends and family on a wetland walk.

Pick up trash from a wetland.

notes

more notes.