



THE APPLE TREE COMMUNITY

BY GEORGE A. SMITH

The surging whirl
of life under a
lovely old tree—
revealed by a
naturalist in words
and photographs



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One day late in July I walked through my garden to the spot where an old apple tree has been standing for more than half a century. On that gray day the tree was bare of blossoms, its branches twisted and misshapen, its trunk scarred and deformed and full of holes, its gnarled roots showing...

Along came a man with an axe.

"Let me chop that tree down for you," he said. "You can burn the pieces in your fireplace. And you can plant a new, young, straight tree in its place."

With these words, a unique book of remarkable photographs and evocative stories begins. George Smith can't allow his aging tree to be cut down. It is a center of life — a honey factory, a birds' hotel, a summer cafeteria, an egg hatchery, a nursery, a shelter, a battleground, a cradle. In it and on it, over and under and around it, life unfolds in wonderful ways.

George Smith — writer, photographer and naturalist — leads us into this whirlpool of activity. We see four seasons of life at close range: brilliantly revealing, always inspiring. The white-tailed deer, the fabled turtle, the bunting family, the robber fly — close-up photographs and instructive comments make us intimates of scores of such living things as these.

Yes, come into this enchanted place. Here, in a quiet corner of nature's cathedral, the apple tree community welcomes your young spirit.

Jacket design by Eugene Milbauer

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*"Who teaches us more than the beasts of the earth,
and makes us wiser than the birds of the air?"*

—THE BOOK OF JOB

The Apple Tree

George A. Smith

Community



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Prologue

One day late in July I walked through my garden to the spot where an old apple tree has been standing for more than half a century. This tree has always seemed a little aloof, a little proud, somewhat different and special, as if it had been planted by Johnny Appleseed himself. But on that gray day the tree was bare of blossoms, its branches twisted and misshapen, its trunk scarred and deformed and full of holes, its gnarled roots showing.

Along came a man with an axe.

"Let me chop that tree down for you," he said. "You can burn the pieces in your fireplace. And you can plant a new, young, straight tree in its place."

"But a new, young, straight tree wouldn't be *this* one," I told him. "This is a very special tree."

"What's so special about it?" he wanted to know. "It's ugly. It's out of shape and full of holes. It's dying, and its apples are probably sour. What's it good for, then?"

"Oh, a great many things," I replied. "That old apple tree is a honey factory, a birds' hotel, a summer cafeteria, a winter pantry, a concert stage, an egg hatchery, a nursery, a shelter, a floral exhibit. It's even more—it's the center of a patch of green earth where daisies, buttercups, goldenrod and evening primroses grow. Where. . . ."

But I was talking to unbelieving ears. The man with the axe walked away, shaking his head.

I looked at my apple tree, the oldest apple tree on my land, and thought about all it had survived during fifty or more long years. It has been buffeted by hurricanes, blasted by blizzards, invaded by beetles. Yet it has stood defiantly against all attacks; it has weathered every storm. Each spring it sends up new sap to defeat the insect invaders, and then in May those weatherbeaten old limbs sprout a display of pink

and white petals that delights passers-by. And I, too, breathing deeply of their fragrance, am delighted.

When the petals fall to the ground, I see them as a spring shower of apple blossoms. In the fall—this fall—the fruit will hang from the tree's boughs, and during the night ripe red apples will drop onto the grass and flowers. The apples may be sour to my taste, but rabbits and squirrels will relish them.

Trees are like people—they grow old. My old apple tree has lost some of its bark and limbs, yet it offers a haven to all the creatures that choose to live there.

I could have said to the man with the axe, "My special apple tree is more than just an apple tree, going through its cycle of foliating, flowering, fruiting and fading each year. It is the center of a whole community of living things. In it, and on it, and over it, under it and around it, life unfolds in wonderful ways."

And I could have added, "You cannot see much with one quick glance. But if you'll come and look at this tree for a whole year, day after day, month after month, season after season, as I do, then you'll see all the rich things I see."

You who read this book need not take a year. This is your invitation to share the life of my Apple Tree Community as I saw, photographed, and recorded it.

Summer



White-tailed Deer

A surprise event on this warm summer evening is the sight of a tremulous deer grazing under the old apple tree. I know that at this time of the year hungry white-tailed deer wander about in the dry, wooded hills nearby, searching for food. In my orchards, a full meal of lush orchard grass beckons, and diners have nothing to fear. I'm glad this deer has joined the apple tree community.

One of the most beautiful sights in all the great outdoors is a glimpse of these graceful and fleetfooted animals, heads and white tails high in the air, bounding through the woods. Imagine how the melodic sounds of a harp would look if they had form; that is a deer in motion.

The family life of the white-tailed Virginia deer is unusual. At birth a baby deer is about a foot and a half tall, covered with a brown, spotted coat that helps camouflage it from the sharp eyes of foxes, coyotes, and other predators. It lies motionless in a bed of leaves, usually at the base of a tree, until its legs are strong enough to carry it through the forest and fields. For a year or more a young deer remains under the care of its mother, usually traveling by her side until it is practically full-grown. Even after that time, deer generally graze and travel together.

I hope that this special guest of mine will come again to the apple tree community.



Ruby-throated Hummingbird

If you weighed this rubythroat and nine other hummingbirds, the scale would barely show one full ounce. Yet this frequent summertime visitor to the apple tree community will soon depart on an exhausting long-distance flight. In autumn, hummingbirds will start streaming southward—some to Mexico and some to Central America, many of them making the 500-mile leap across the Gulf of Mexico in less than a day of nonstop flying.

Tiny, swift, powerful, and beautiful—those are the words for hummingbirds. They can hover in mid-air; they can rise vertically, like a helicopter; they can fly backward. Their wings move so fast that all your eye detects is a whirring blur of feathers. Their song is tiny, too—a high, thin chittering that makes an exquisite counterpoint of melody to the sound of their buzzing wings.

This colorful hummingbird dines well in the apple tree community. Her long, slender tongue seeks out nectar and insects from such long-tubed flowers as the trumpet vine, the honeysuckle, and the morning-glory. For three or four months she will flit about industriously. And then it is "*Hasta la vista.*"



Killdeer

A noisy bird in the apple tree community from spring until fall is the killdeer. This well-known member of the plover family owes his odd name to his penetrating call of *kill-dee, kill-dee*, heard at all hours of the day and often during the night.

The killdeer is a good-sized bird, about ten inches long. He is grayish above, white below, with a prominent neck band of two black rings; his bill is black and his eyelids are red.

The female killdeer is a camouflage artist, adept at concealing a nest that is typically little more than a slight depression in the bare ground. A killdeer in our community, for example, collected an assortment of pebbles from a nearby area and carried them, one by one, to her nest; there she made an irregular border of pebbles, so ingeniously placed that her drab, sepia-marked eggs could not be seen when I was but two steps away.

Indeed, about the only time a killdeer's nesting place is revealed is when the parent bird is flushed from her nest. But then she is so clever at running away and directing attention with her famous "broken wing" antics that it is difficult to find the spot from which she fled.

Usually traveling in pairs, these long-legged birds gather their food—mostly worms and insects—while running over the ground as if on stilts. The enterprising mother killdeer shown in the photograph actually picked up chips of stone she found near a stone house under construction on my farm; one by one, she carried them to her nest. When I located her nest and pointed it out to the stone masons who were building the house, they chuckled and agreed that this killdeer should be given a union card as a master stone mason.



Opossum

I found Mrs. Opossum in the apple tree community this morning. Fritz, my collie dog, saw her first, and chased her up a redbud tree. It was then that I noticed that the little gray-white animal was carrying her family with her; several young opossums were clinging snugly to her furry back and stomach.

This droll creature with paper-thin ears, cone-shaped nose and rat-like tail is one of our most unusual mammals—the only warm-blooded animal in North America that is pouched. Like the kangaroo, she carries and nurses her tiny babies in this pouch.

Opossums possess a strong digestive system, a mouthful of fifty teeth, and a keen appetite for bugs and berries, mice and moles, earthworms, snakes, and fattening, tender young corn. They never encounter difficulty in finding food, but they are slow-moving animals, and, if pursued, cannot always reach a tree in time to save themselves. When cornered on the ground, the opossum usually relies on his famous stunt of "playing dead."

Some people believe that the opossum actually blacks out with fear, and isn't even conscious while "playing possum." Whether the opossum faints or is feigning, I do not know; but for me a minor marvel of creation is the fact that young opossums, as soon as they are able to walk, know how to "play dead."



Dragonfly

A big-eyed dragonfly is flying around the old apple tree now, busily feeding upon flies, gnats, and mosquitoes. We call him a mosquito hawk.

His huge appetite is never satisfied. Around and around he flies, reconnoitering for food. Soon a smaller insect comes within striking distance; without once reducing his speed, the mosquito hawk plucks his victim out of the air, using his legs as grappling hooks.

Few insects are as powerful in flight as the dragonfly. With his streamlined body, with enormous eyes fitted with thousands of small eyes, and with wings constructed like those of an airplane, this insect has marvelous flying skill. But although he has six fully developed legs, closely bunched for clinging to objects or for snatching insects out of the air, he cannot walk. Without the use of his powerful wings, he is practically helpless. A grounded dragonfly soon starves to death.

This long-bodied insect with the gauzy wings does occasionally alight during the daytime to rest or to eat a captured insect. He'll settle down on a twig or a blade of grass to sleep through the night and well into the morning.

When a cool night chills his body fluid and a blanket of heavy dew covers him, the dragonfly is almost catatonic. If you want a close-up of him, go out into his haunts early in the morning, when every branch and blade of grass drips with dew. He's harmless, and a live dragonfly at this hour is helpless. He may be examined, handled, and posed for a photograph—just as was the one shown here—without any display of resistance or hostility.



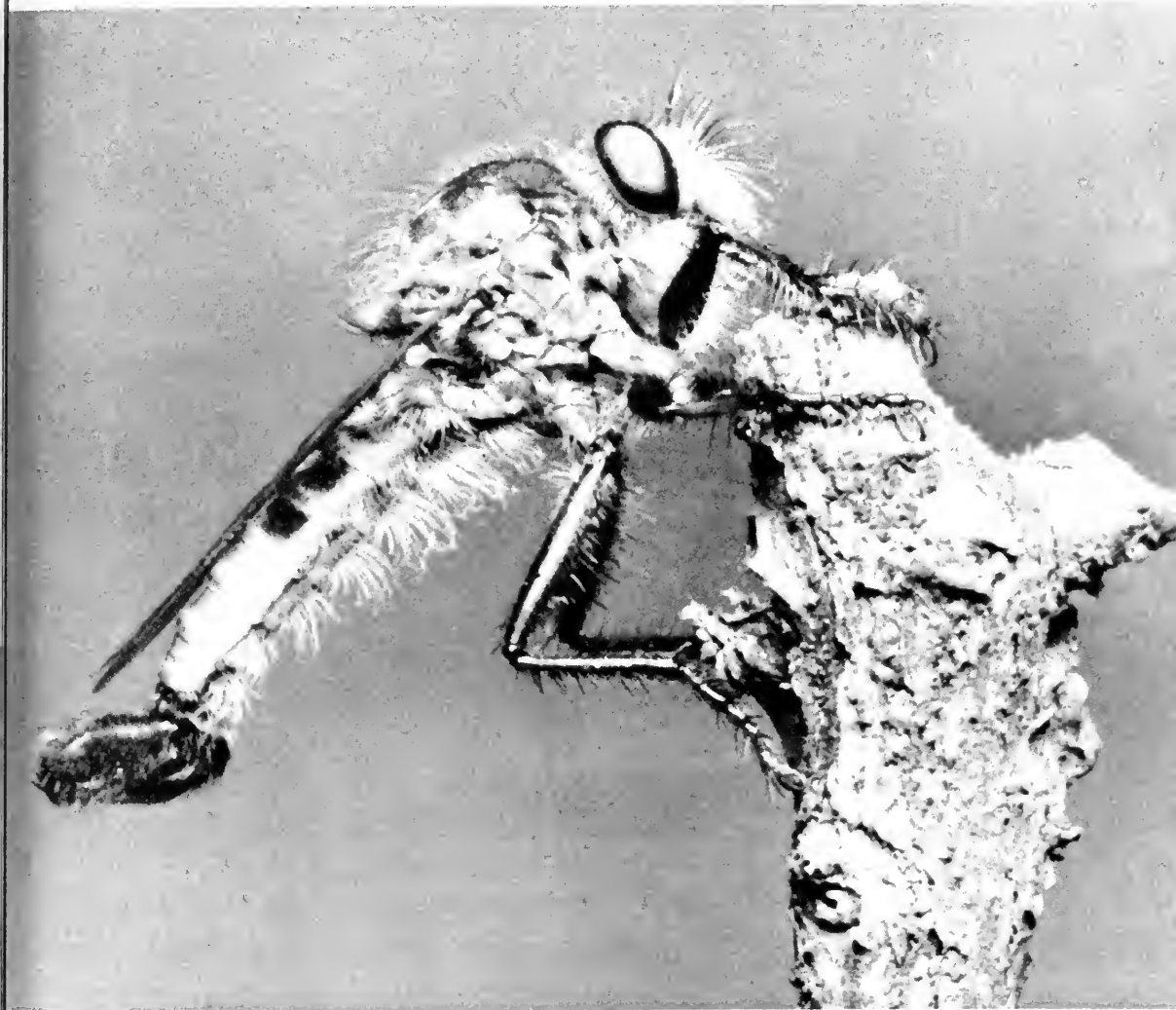
Robber Fly

In less than an hour on a hot fall day, I can find perhaps fifty varieties of insect life around the old apple tree. Some are friendly, some are not.

I number among the friendly a certain big, two-winged fly—the indispensable robber fly who feeds on the gnats, flies, and mosquitoes humming around my head while I rest in the shade of the tree.

Among the thousands of related species of two-winged flies that swarm over the earth, the robber fly is one of the largest and most interesting. This close-up shows the two great compound eyes that practically cover the upper part of his head. Each of these contains several thousand separate lenses, making it possible for him to spot an insect a dozen feet away. A long, streamlined body, two fast-moving wings and strong, spiked legs further equip him for catching flying insects. Occasionally he'll capture a large insect, such as a honeybee. After he snatches it out of the air he stabs it into helplessness with a stout beak carried underneath his bushy red beard; then the robber fly carries his paralyzed victim to some convenient perch, where it will be sucked dry of its juices. Often a mound of empty skins is found under the robber fly's favorite perch.

A robber fly resting on a twig isn't readily frightened away by the approach of a human. In fact, you can usually touch him with your finger. Often I've scratched him gently on his side with the tip of a blade of grass. Sometimes he turns his body toward me as if he enjoyed the scratchings; at other times he seems to resent it, and will kick.



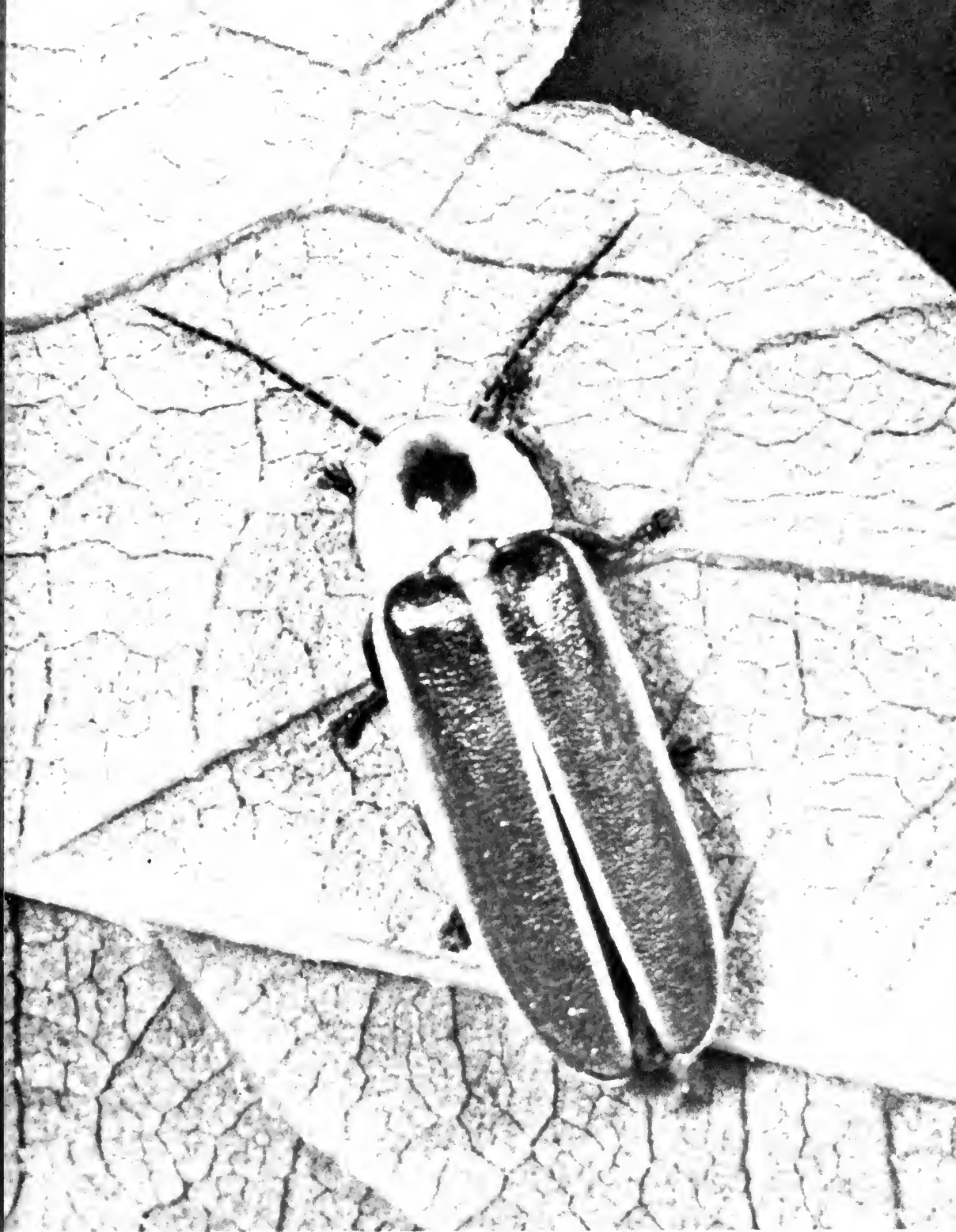
Firefly

Perhaps the first insect to excite one's childhood fancy is the firefly. Almost every youngster has caught a "lightning bug" and held it in cupped hands to see its lantern glow. And no child has ever been disappointed by the outcome of this experiment, for the little insect magician is always ready to flash his evening light.

Our common firefly, about half an inch long, is not a fly at all, but a beetle—an interesting one who holds the original patent on the world's most efficient light. A man would be fortunate indeed if he knew how to produce the "cold" light of the firefly. But we know only the ingredients, not the secret combination.

The fuel in a firefly's flashlight is a substance named *luciferin*, which unites with oxygen and thus produces light. Instead of burning out in time, as a flashlight battery does, the substance continuously recharges itself and is always ready to produce a flash of light.

The male firefly dashes about a few feet above the ground, winking his yellow light to attract any females that might be hiding in the grass below. On a dark night in my apple tree community, the fireflies are flickering stars that gently touch the surface of the earth.



Field Cricket

The late summer and fall would be a quiet time in my apple tree community if all the insects that live here suddenly decided to stop singing.

I hear a field cricket rasping out his cheerful, chirping song. The male is the tunesmith, and this grass-roots minstrel is entertaining me with persistent music. He has a large shiny head, a stubby body and powerful jumping legs, and his voice is in his wings. When the male feels like singing he raises his wings—normally carried against his body—and shuffles them back and forth, dragging the scraping edge of one across the roughened veins of the other. The sound thus produced is amplified by efficient sounding boards—his stiff, ridged wings. As he performs, his lady friend listens with ears located just below her front pair of knees.

The cricket in the picture is an adult female, identifiable by the inch-long spear extending from the tip of her abdomen. She uses this ovipositor to place her tiny cricket eggs down in the soil. They will hatch the following spring.

Young wingless crickets appearing in early spring are shy creatures, venturing out only at night to seek edible vegetation. But by the time fall arrives, these crickets will be fully grown, and will have lost much of their shyness; then they will be bold enough to emerge during the day to seek mates and to deposit their eggs in the soil.



Praying Mantis

When a praying mantis is in the apple tree community, the ancient law of tooth and claw prevails. Standing on four powerful hind legs with head erect and two saw-toothed forelegs ready to strike, the mantis seems to be a creature out of the past, a miniature of the prehistoric monsters that once stalked these lands.

The wings of the mantis are often leaf green, while its body and legs may have the same brown color as the twigs on which this killer perches. That protective coloration and a slow, stealthy mantis stride permit the hunter to approach its prey undetected.

Its aim is deadly. When an insect strays within striking distance, the mantis squares for the attack. Then with flashing speed and accuracy, out shoot its strong forelegs to clutch the victim. Once caught, the insect is pierced by the sharp spines that cover the forelegs; and even before the prey ceases to struggle, the feast is on. It goes on until every particle of the victim, except dry wings and legs, is eaten.

In late fall the female mantis prepares a frothy cocoon on a weed stalk or on a low bush near the apple tree. In it she places as many as two hundred eggs; then the cocoon hardens. When the baby mantids hatch in the following spring, they are spritely little fellows with beady eyes and straw-colored bodies. Before they seek even their first food they know how to rear up on their hind legs and assume the familiar praying attitude of the adult mantis.



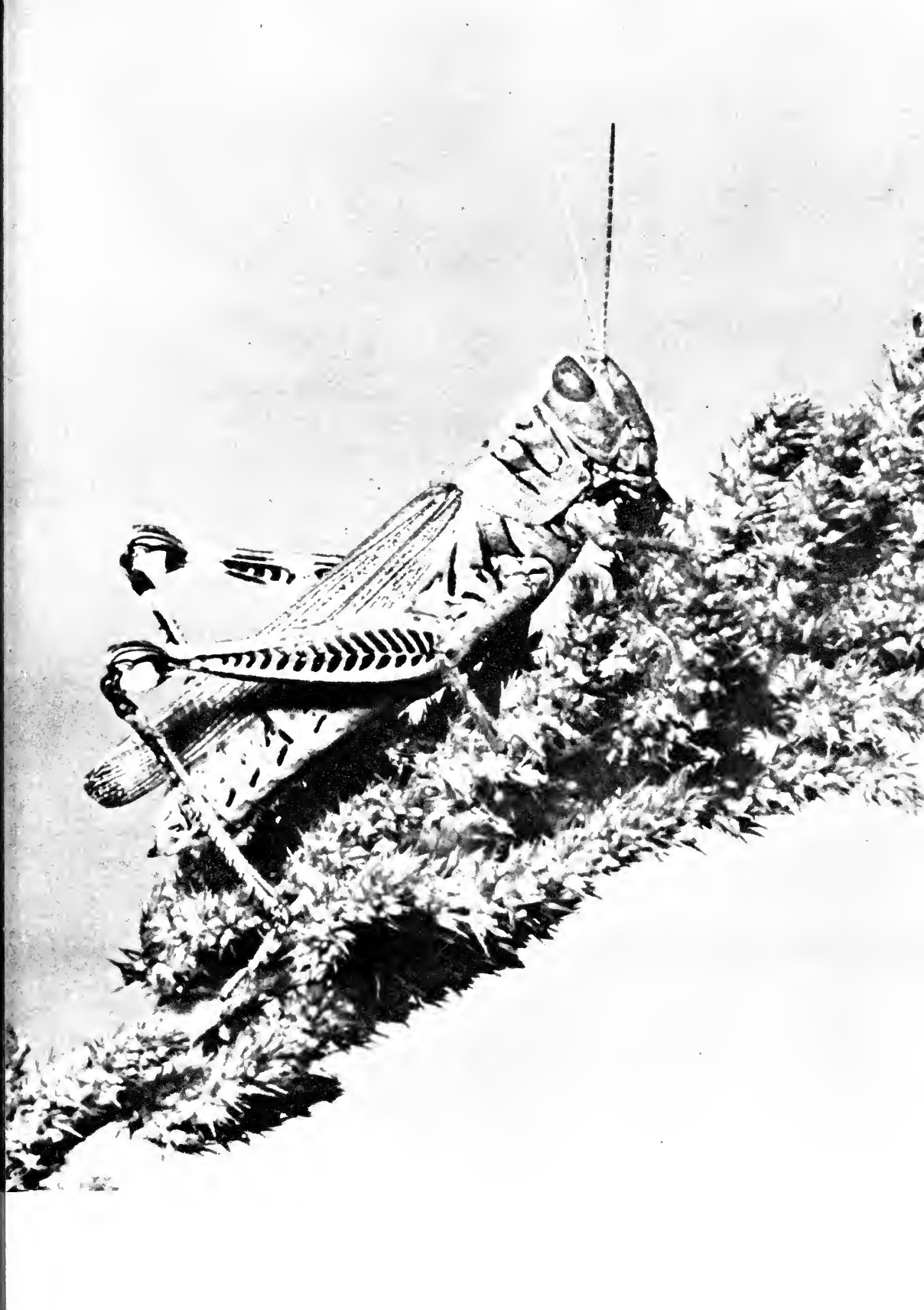
Grasshopper

If I could be a boy again, I'd like to have the jumping strength of a grasshopper. A human who was able to jump as far, proportionately, as this short-horned grasshopper, would clear a fifty-foot bar easily, or could broadjump a distance of two hundred feet.

The short-horned grasshopper has two powerful hind legs with knees that tower high above his body. When he jumps, the heavy muscles in these legs propel him into the air with a bound. But although he has strength and speed, he has no way to direct his course. A poor athlete, after all.

The grasshopper's eggs are laid just below the surface of the ground. With her egg-layer, located at the end of her abdomen, the female bores a hole in the ground, deposits the eggs, and then pours a mass of brownish froth over them. This molasses-like liquid soon hardens into a covering durable enough to protect the eggs throughout the winter.

As soon as the warm weather arrives, a crop of baby hoppers emerge from the soil as if by magic. As they grow they molt, shedding their hard outer skin to make way for new and larger growth. All summer long grasshoppers feed on green vegetation in the apple tree community. Then in the fall, after the egg-laying season, the cold weather comes, and they die.



Screech Owl

Sometimes when I am out-of-doors on a dark evening, I sense the motion of muffled wings. I know then that a screech owl is flying above, carried on wings with feathers so fluffy that he can swoop or soar as quietly as a moving shadow.

A casual glance at the tree limb where he often sits may miss him completely, so closely do his brownish gray feathers merge with the bark. He's not much larger than a male robin. But when you see those round yellow eyes staring straight at you, and those long ear tufts sharply erect at the top of his head, you will know him. He does not announce his presence by screeching, as his name implies, but utters a soft, sad, quivering, tender call.

The screech owl that lives in my apple tree has found a deep hole there for his nest. After napping through the day, motionless and silent, storing energy for the hunting hours ahead, he ventures forth at twilight to prey upon mice, small birds, frogs and insects, catching them with his hooked beak, strong feet, and sharp, grasping claws. If the prey is small enough, it is swallowed whole; otherwise it is torn apart and swallowed in large pieces. The flesh is digested, but the bones and other indigestible parts are formed into compact pellets and are later disgorged from the owl's stomach.

An owl's eyes are fixed in their sockets. He must, therefore, stare when he looks at you, and turn his head as he looks from one place to another. This accounts for the absurd belief that you can make an owl twist his head off by walking around him. What the owl actually does in such a case is to snap his head quickly around and pick up the view from the opposite side of his body.



Autumn

There be four things which are little upon the earth, but they are exceeding wise: The ants are a people not strong, yet they prepare their meat in the summer; The conies are but a feeble folk, yet they make their houses in the rocks; The locusts have no king, yet go they forth all of them by bands; The spider taketh hold with her hands, and is in kings' palaces.

—THE BOOK OF PROVERBS



Common Bat

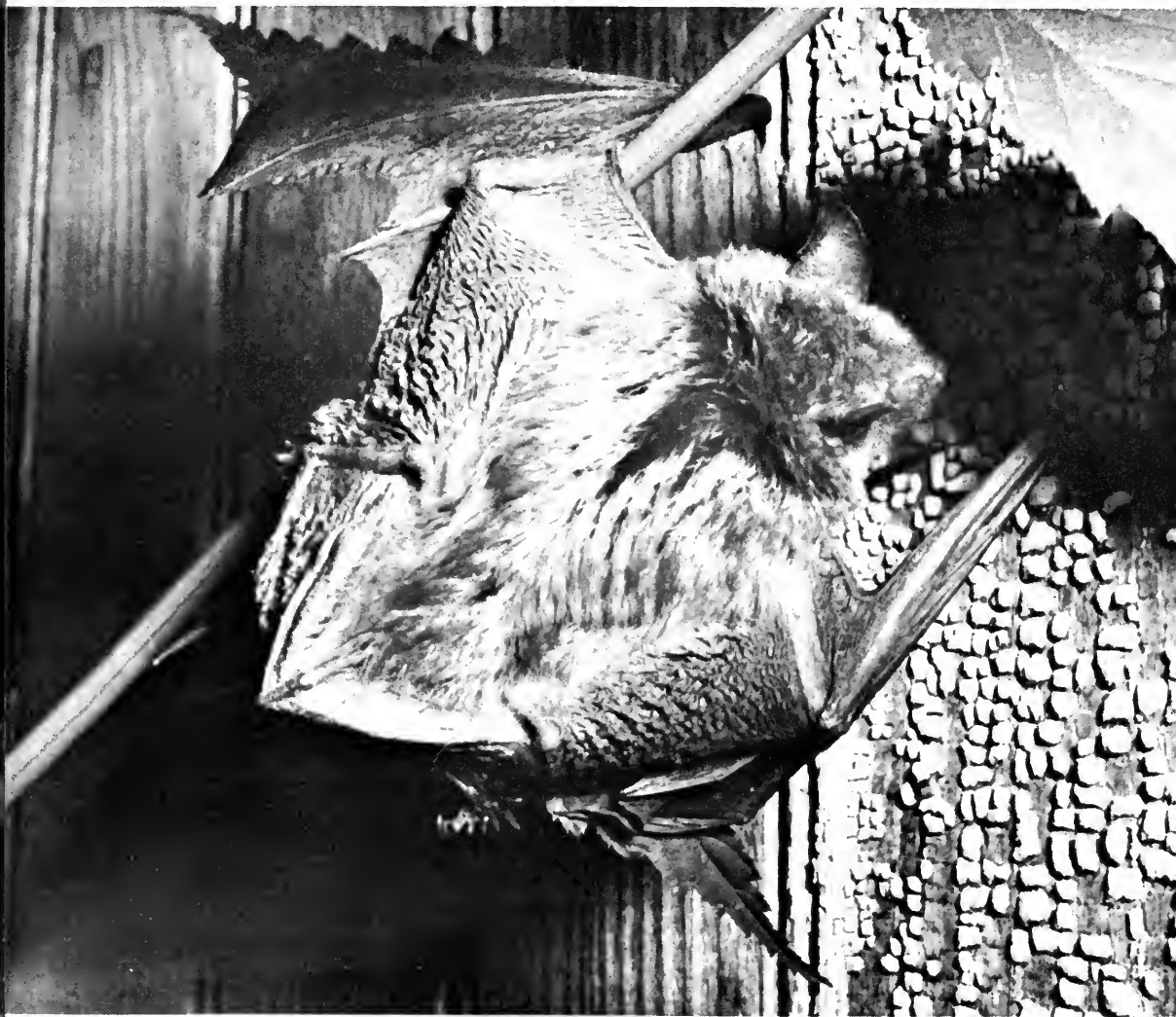
I marvel at the silent, graceful flight of a common bat as I see it on wing early in the morning and again in the evening after sundown. Flying at terrific speed he swoops, soars and banks around the old apple tree. An aviator who watches this flight pattern must surely envy the bat his ability.

Around and around in a circular pattern the bat flies, ridding the air of harmful insects as he goes. Some he plucks out of the air with his mouth; others are caught in the leathery covering that encloses the space between his wings and tail. These will be enjoyed later in a dark nook, when the bat settles down to pick the trapped insects from the folds of his pleated wings.

No matter what the weather, the hour, or his speed, the bat seems never to strike such obstructions as tree limbs or telephone wires. Apparently he has an efficient sonic system for flight; as he flies, he emits extremely high-pitched squeaks. The echoes of these squeaks—when he approaches an obstacle—warn him to change course.

The bat is unusual in other respects. Although a true mammal, he flies better than a bird. His four legs are not fit for walking; instead, they serve with their long toes and with his tail as a supporting framework for his powerful wings. Grounded, the bat is almost helpless, walking in a flopping, slow shuffle, an easy prey for enemies.

When winter approaches the bat goes into hibernation. His sleeping quarters may be a rocky cave, an opening in a stone wall, an unused building, or a corner of a barn, where the creature is protected from wind and weather.



Cicada Killer with Cicada

Suddenly, with a whirl of wings past my head, a yellow and black wasp has pounced upon a cicada. Both fall to the ground. The musician's kettle drums are stilled as the marauder thrusts her terrible stinger again and again into the cicada's body. The poison begins its paralyzing work. The numbed, helpless cicada ceases its struggle.

Now I see an incredible performance. The wasp has not captured this cicada in order to eat it herself. Instead she will carry it to an underground burrow where she will deposit an egg on top of it; then, when the egg hatches, "living" cicada meat will be available to the hungry infant wasp. But how to get this cargo to the burrow in a road-bank where the egg will be laid? A cicada is larger and heavier than a wasp, and a wasp's burrow is often a quarter of a mile away from her hunting grounds. Slowly, patiently the wasp drags her victim, head-first and on its back, to the top of a broken branch lying on the ground. Then she climbs even higher, to the tip of a projecting twig. And from there she makes a smooth, gliding take-off into the air! She is aloft—something she could never have achieved from the ground.

Cicadas and cicada killers are a part of the community around my apple tree. The killer measures over an inch and a half, and her needle-pointed stinger, about a third of an inch long, injects a powerful shot of poison. According to the writer Pliny, people once believed that seventeen poison shots from the cicada killer would kill a human being. Whether or not that is true, it takes but a few javelin thrusts to cripple a cicada.



Katydid

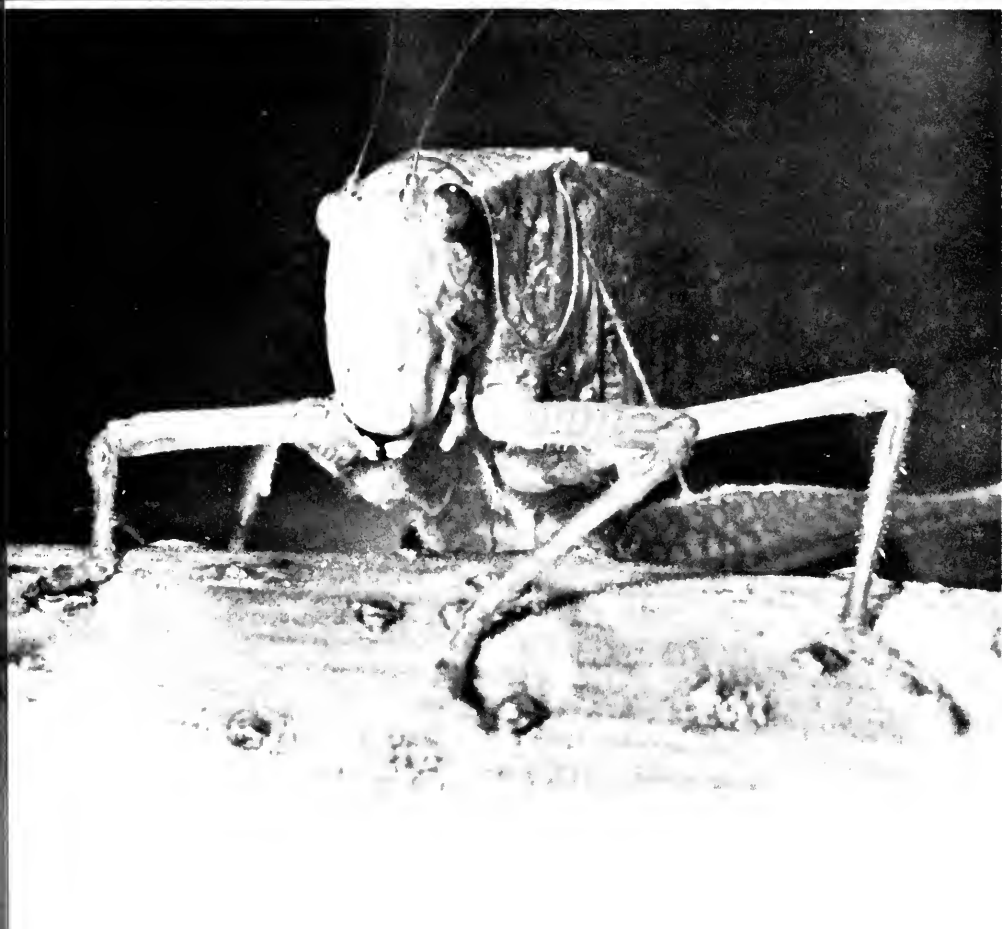
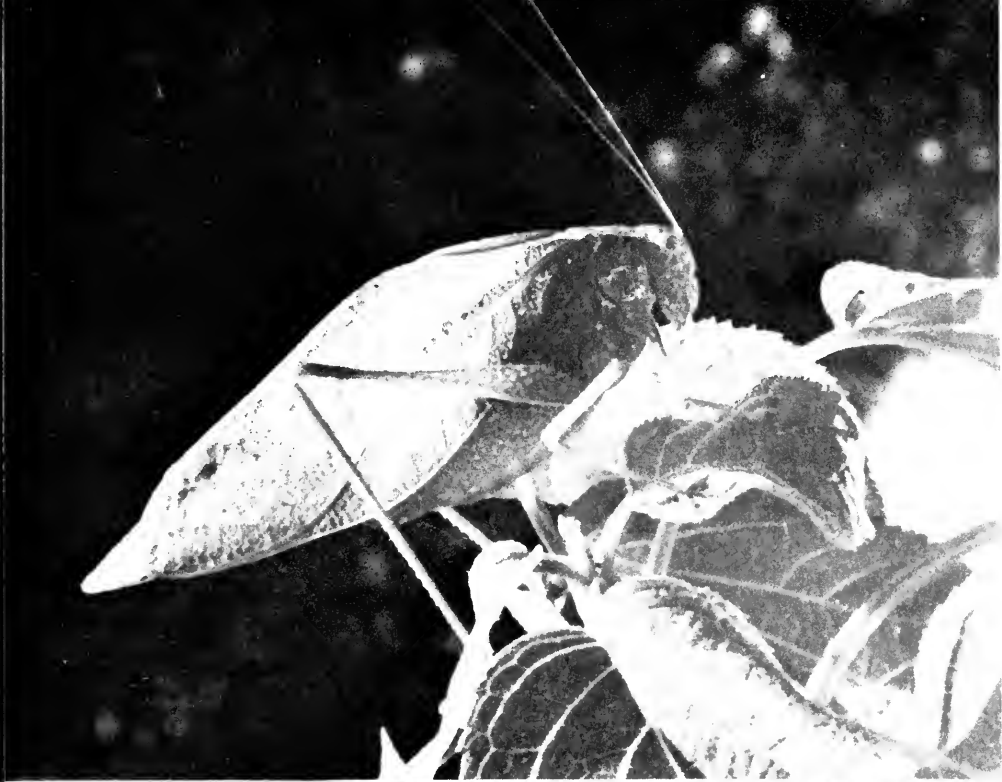
The daytime cicada drumming has stopped. The battalion of cicadas in the community have ended their season. And what a comfort it is to be rid of that constant, ear-piercing humdrumming on a sweltering, breezeless day.

Now it's the muffled nighttime fiddling of a katydid that I hear—a pleasant reminder that hot days are slipping by and that cool evenings are not far away.

The male katydid's concert is his serenade to the lady katydids of the apple tree community—and not just to those a few feet away, either, for on a still night his song carries a quarter of a mile or more. Señor Katydid produces his music with wing instruments instead of fiddling with his legs, as does a meadow grasshopper. As he sounds his familiar *katydid* or *katydidn't*, he rubs a scraper at the base of his left wing over a file-like row of ridges at the base of his right wing. He's a lefthanded performer.

A katydid's head has a horselike look, but instead of ears it has a pair of long antennae. The katydid's actual "ears" are on the shins of its front legs; in these slit-like openings are the organs with which one katydid listens to another's music.

In the fall the female katydid deposits her disc-shaped eggs on twigs and leaves. She cements them in place in neat rows, one overlapping the other. In the spring the baby katydids (or "nymphs") emerge, without wings. Pale at birth, they eat and molt and gradually take on the green hues of the leaves upon which they feed. The males begin their *katydid* fiddling when their wings are fully developed.



Sparrow Hawk

A sparrow hawk I have known for years dropped in today to pay a visit to the apple tree community. Killy Boy, I call him, because of his *killy, killy* call. He's at home here; he and his mate have occupied the same apartment for several seasons. A number of possible homesites in the area were available, but they chose a cavity in a dead limb of the old apple tree, and from it their falcon eyes can spot fat grasshoppers and field mice on the ground below.

This morning Killy Boy sat for an hour or more on a low branch, as unimpressed by his surroundings as a pilot on a bench in an airport waiting-room. Then, as if he had decided that the earthbound life was not for him, he raised his long, pointed wings and soared around the field, now in his rightful domain.

I watched him with pride. Killy is a handsome bird with a twenty-two-inch wingspread. Sunlight glinted on his reddish-brown back—it is lightly barred with black—and on his red-brown tail, tipped with a band of black and white. As he soared I could see the two black curved bars on his slate-blue head.

The sparrow hawk's constant foraging for mice and grasshoppers helps keep these pests under control. He frequently hovers high over a field, suspended and motionless except for his beating wings, looking for his prey with marvelously keen eyes.

My falcon friend is known scientifically as *Falco sparverius*; I envy him his close acquaintance with the sky.



Sphinx Moth

A sphinx moth at rest on the bark of a tree in the daylight hours blends so well with its surroundings that it is usually unnoticed by passers-by. Then when twilight approaches, these trim moths dart about at high speeds—so fast that their wings produce a hum similar to that of a hummingbird—so fast that hawk moths in flight are sometimes mistaken for hummingbirds.

You see them just before dusk, hovering over the blossoms of such flowers as the jimson weed or the primrose. Later in the evening the sphinx moth feeds on the nectar of deep-throated flowers that open at dusk; he accomplishes this by uncoiling a tube-like tongue and thrusting it far into the nectar cup of the flower. When not in use, this long tongue is carried under the moth's chin, rolled up like a tightly wound watch spring.

Other moths escape our eyes because they too sleep the day away in secluded nooks, and fly about only at night. But when the moon is bright, watch for them: the dusky brown *Cecropia* moth is particularly beautiful, measuring four inches from wing-tip to wing-tip, and the crescents and bands of black and white on those wings make patterns of silver in the sky. Toward the end of summer, you see the *Cecropia* caterpillar meandering along on branches. He's harmless, but a fearful sight indeed: bluish-green, armed with rows of shiny projections, some of them bright red and spotted with black. At maturity, this caterpillar may be as long as four inches.



Monarch Butterfly

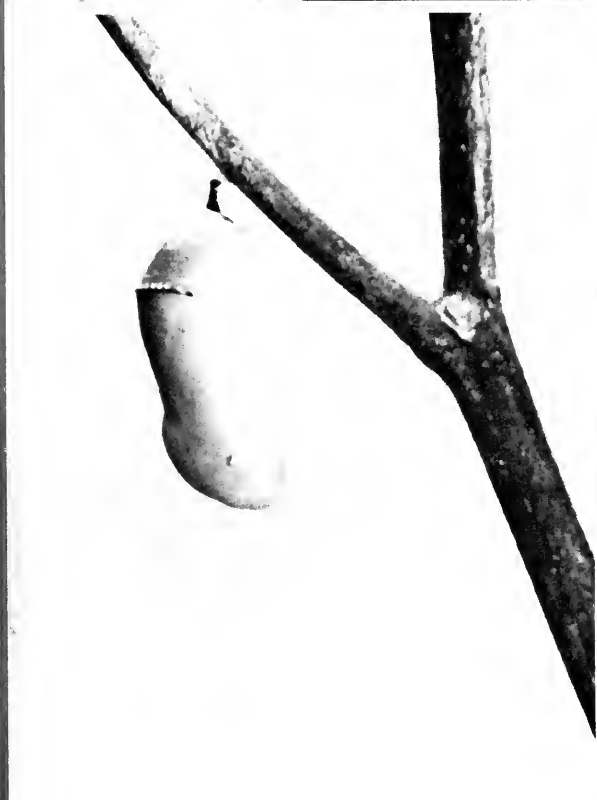
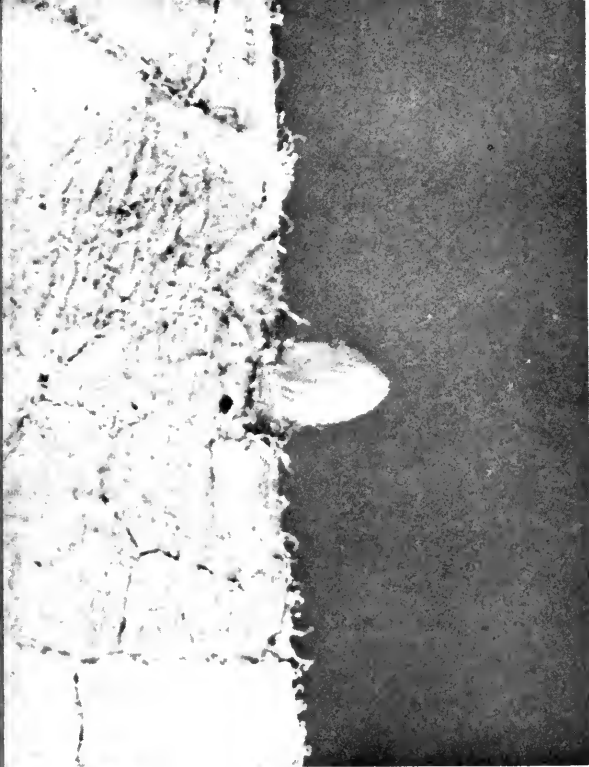
The apple tree's shade tempts me; I sit in its quiet and cool. My eyes rest on the colors in a special patch—a cluster of milkweed, goldenrod and wild carrot. Some folks call these plants "weeds." I insist that they are flowers, beautiful in themselves, more so because they attract butterfly beauties—monarchs, swallowtails and fritillaries.

Of these, the monarch is my favorite. A common butterfly, yes, and so closely associated with the milkweed plant that it is often called the milkweed butterfly. Because I can so easily observe its egg-larva-pupa-adult life cycle on a milkweed stalk, I like it best.

Each time I watch this drama of insect life it seems more breathtaking than before. A tiny egg is laid; the sun hatches it into a caterpillar. Then this groveling worm grows, changing into the mummy-like pupa known as a butterfly chrysalis. Finally, the adult monarch in all its loveliness emerges from the chrysalis and flies away in the summer sunshine to spend a free and airy life among the nectar-filled flowers.

But this is not all. Soon the monarchs will form flocks, and will fly to the South, fleeing the cold. They will fly along "lanes" that their predecessors have taken; they will find these paths almost unerringly, although none in these flocks has ever made the trip before. In the South they will mate. The males will die there, but the females will journey back. And tiny new eggs will be laid here again, and here in the sun and warmth they will hatch, and the cycle will again begin.

I sit in the shade, quietly watching, and I marvel.



Garden Spider

One of the most amazing of the web-builders in the apple tree community is the golden garden spider. Watch her at work; her circular web, about two feet in diameter, is being hung vertically in an open space between two goldenrod stalks.

She starts by spinning strong strands of silk for the framework. These are guyed and braced, and then radiating lines from the center are arranged like the spokes of a wheel. Next the spider places the spirals of the web, working from the outside toward the center. These filaments stretch without breaking when a captured insect tugs at them; and they are covered with a mucilage-like substance that holds any tiny creature *except* the builder of the web herself.

At the center of the web the golden spider places a mat of silk to serve as a comfortable seat; there, after her work is done, she waits for her prey.

She does not wait long. A small grasshopper in flight strikes the web and is caught. The spider immediately runs to the grasshopper and begins winding about it a shroud of silk. And as she wraps, she bites the grasshopper with her poisonous fangs. Then she leaves it; it will be eaten later. Often several insects are caught and enshrouded before the spider devours them.

When her meal is finished she always cuts away any threads that may hold remains of the victim, and these fall to the ground. Then she repairs her web and sits again on her silken throne to await fresh prey.



Garden Snail

This warm afternoon I found a little snail house parked in the cool shade of the apple tree. I picked it up and discovered that a garden snail was inside, with the door tightly closed.

Trailer life may have originated with the snail, who drags his home along with him wherever he goes. We humans have copied the idea, but we haven't improved on it much, and the snail's unique plastic door for his trailer hasn't ever been duplicated successfully. If the snail wants to protect himself or retire for a quiet rest, he simply withdraws into his shell and closes the one and only door with the sole of his one and only foot. Then nothing can enter.

When the snail decides to come out, he first scouts the area with a pair of eyes that can be raised or lowered like periscopes. Once he pokes his way out of the shell, he sees with a pair of more ordinary eyes placed on the top of his head.

The snail requires tender vegetation that can be chewed with his many-toothed tongue. He uses his remarkable tongue like a file to scrape food into his mouth, and as his teeth wear out, new ones push up to replace them.

A snail must always protect his soft and tender body from drying out, and this he does by covering it with a slimy secretion. When he's on the move, this slime also serves as a lubricant, helping him to progress over rough, hot, or dry surfaces. Often you see a thin path of slime on a leaf or window; it's the snail's calling card. But more than that—it is also a mixture repellent to ants and other insects, and thus protects him.

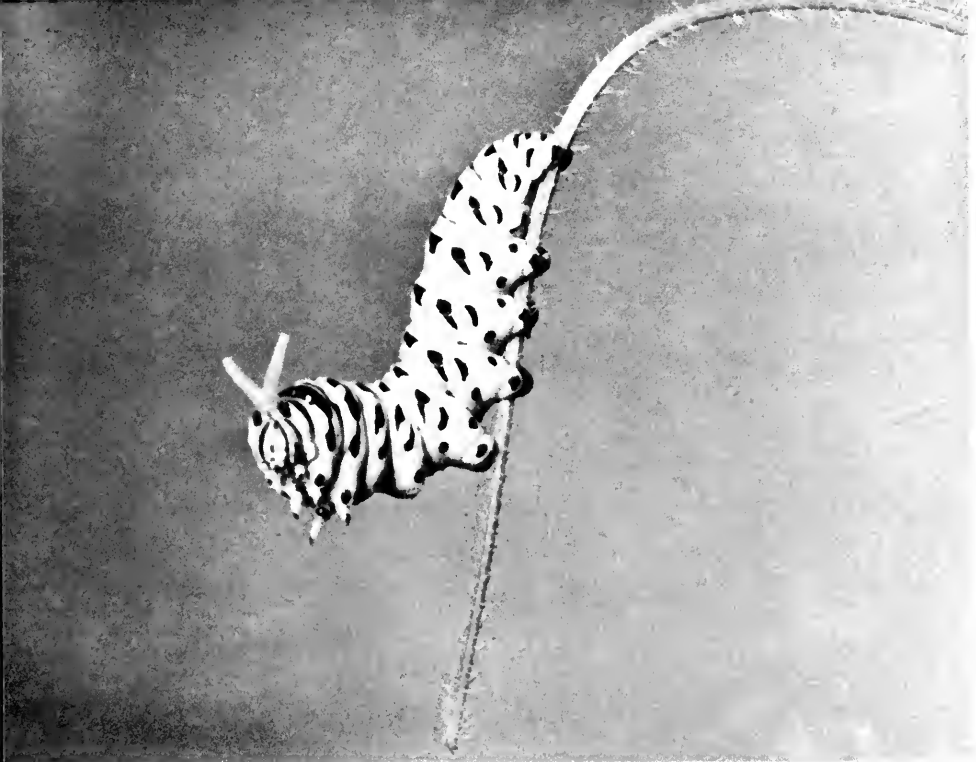


Caterpillar of Black Swallowtail Butterfly

Spying among the wild flowers growing in the apple tree community, I find a colorful black swallowtail caterpillar resting on a wild carrot leaf—his favorite food. He's a fine, large fellow about an inch and a half long, with a bright green body trimmed in black bands and orange-yellow dots.

After hatching from a tiny, ball-shaped egg (often called a "witch's pearl"), the caterpillar dedicates its life to eating. It grows by molting, shedding its skin for a new and larger size when the old becomes too tight.

This caterpillar has an odd way of protecting itself from birds and other creatures that might like to dine on its juicy body. When annoyed it suddenly rears its head and the front part of its body, and at the same time two soft, orange-colored horns shoot out from its head. As these formidable horns appear, they give off a sickening odor, and the combination of terrifying appearance and foul odor serves to frighten off most of the caterpillar's enemies. Two or three broods of swallowtail caterpillars become butterflies each summer; but sometimes the last of these broods will be caught in the chrysalis stage by cold, early autumn weather. Yet they do not die; instead, in chrysalis form, they endure the cold until May warmth rekindles the slumbering spark of life within. The interrupted cycle begins anew, and eventually a stylish black swallowtail butterfly emerges. Two rows of yellow stitching adorn the lower edge of each wing, and a few large yellow spots decorate the space between the rows of stitching on the hind wings. And at the inner edge of each hind wing is the swallowtail's beauty spot—a bright red dot.



Common Toad

My pet toad Lumpy always gets his bug. I like to watch him at twilight as he hops around the apple tree collecting his supper. Life for Lumpy is one grand mealtime, excepting only the hours he spends asleep in some secluded place.

A toad will eat anything he can swallow as long as it's alive and wiggling. This means he does away with hordes of bugs, snails, earthworms, flies, and mosquitoes.

He captures these with his remarkable tongue. Like that of the tree frog, it is attached to the front of his mouth, and flashes out with lightning speed to catch food on its sticky surface.

Although a toad is chiefly a creature of the land, he does spend a few days of the spring in the water. This is courting time, and while it lasts the male serenades his lady with one of the sweetest trilling songs to be heard anywhere in nature. During the toad's stay in the water he is beautiful. His skin is a rich caramel brown, and his eyes are clear orbits flecked with gold. Shakespeare spoke of a toad's eye as having the brightness of a diamond.

After the egg spawning season is over, toads leave the water for land. There they live a dusty life close to the ground, absorbing needed water in the form of moisture through their warty skin.

A toad is a friendly creature. And he will *not* give one warts. All he wants is to be left alone to carry on his important business of catching insects to satisfy his enormous appetite.



Turtle

An armored tank has moved into the apple tree community, but this mobile fortress is no man-made affair; it is a turtle, and his hard shell is in reality the armor plating within which he hides when danger threatens.

The top shell, or carapace, is actually the turtle's backbone, spread out over the entire top of his body. On the under side is another bony structure, the plastron, so hinged that the turtle can draw in its head, feet and tail, and then close its shell completely around its body. As soon as the stodgy fellow in this photograph saw me he pulled himself inside his shell and closed up house.

The turtles in my apple tree family live on rotting apples scattered on the ground, but they'd be just as satisfied with a repast of worms, insects and plant material. I decided to make the turtle in this series of photographs work for the ripe apple on which he had just dined. I placed him on his back, and then quickly stepped several feet away. As soon as he decided that he was out of danger, he poked his long neck out of his shell. Then, with his nose to the ground, he raised his body at the front end. A sudden push—and he flipped to an upright position.

Turtles are hardy reptiles, and scientists say that they often live for thirty years or more. Perhaps they live to such a ripe age because they are so relaxed: turtles are slow movers, and spend much of their time resting quietly in the shade. In the winter they hibernate to avoid cold weather. In summer, when days are extremely warm, they seek cool, shaded places—preferably mud-holes—in which to sleep away the hottest hours. When I watch the turtle, I remember to slow my own pace. I remember for a few minutes, at least.



Winter

Even the sparrow finds a home, and the swallow a nest for herself.

—THE PSALMS



Cottontail Rabbit

Cottontail rabbits are all-year-round residents of the apple tree community. They are mild and playful creatures, and in the evening after they have timidly emerged from their hiding places they run in circles or roll over and tumble about as if playing games. But at the first suspicious sound they snap to attention. Their long ears stiffen. They brace their strong hind legs for a sudden getaway. And if danger seems too close, they are off with a leap, warning their fellows with their bobbing cottontails.

Baby rabbits are born in a snug, warm nest of grass and fur placed in a depression in the ground—a saucer-like hole, usually, and not more than three or four inches deep. Many young rabbits fall prey to hungry foxes, owls, hawks, and snakes. But rabbits increase rapidly; a mother rabbit gives birth to three or four families each year, with from four to six youngsters in each litter.

Cottontails are plant eaters. In the summer they choose the tender grass and clover found in the apple tree community. In the winter they manage a thin living by eating buds, bark, and berries.



White-throated Sparrow

Every year, with the coming of winter weather, little bands of migratory sparrows stop over for a few weeks' stay in the apple tree community. They like to forage under the low bushes that grow here. And because I enjoy watching these visitors, I reward them for their visit, exhort them to stay, and encourage their return by scattering bread crumbs lavishly around the apple tree.

Among other bird travelers I see many tree sparrows, identifiable by the roundish black spot in the center of their creamy gray breasts. Some of the commuters are big, handsome fox sparrows with their brown, streaked breasts and rich, reddish tails. Another handsome and dignified tourist is the white-crowned sparrow. His head is marked with black and white stripes and a distinguished looking high crest.

Of all the visiting sparrows, however, my favorite remains the little white-throated sparrow. The black and white stripes on his head and the rounded patch of white on his throat unmistakably identify him. He is a friendly little bird, and his song is a sweet, pure, whistled tone that can easily be imitated by almost anyone who can whistle at all. It sounds like *ooh tee whey, whey, whey, whey*. Naturally he sings his best when he is in his nesting territory, farther north than my apple tree community. But sometimes, especially on a dull, gloomy day, a white-throat just can't resist singing; perhaps he anticipates the joys of approaching spring. I try to encourage him to compete by offering a few whistled notes of my own.

As spring pushes northward so do my little bands of migratory sparrows. I hope many of them will come again next winter. They're welcome here, and I'll have plenty of bread crumbs ready for them.



Skunk

I like to think of the many creatures that are afoot at night while most humans are asleep. Thoreau wrote in *Walden*, "It is now dark. The wildest animals do not repose, but seek their prey now; the fox, and skunk, and rabbit, now roam the fields and woods without fear. They are Nature's watchmen—links which connect the days of animated life."

After dark this evening, while I was taking my accustomed stroll in the apple tree community, I came upon a skunk nosing his way through the tall grass in a search for something to eat. The two white stripes on his jet-black fur, and his long, bushy tail arched high, made him a conspicuous figure. At close range his bright, beady eyes gave me a hint of intelligence and good nature. He eyed me with but casual interest as he worked his way through the orchard grass, stopping now and then to dig into the ground for a grub or a worm.

I am sure the skunk must come into my orchard often at night, for I see many deep little holes in the ground near the apple tree where he has been digging for his supper. He does me a good turn by eating grubs, crickets, grasshoppers, and field mice. Only when he must defend himself does the skunk use his bad odor.



Red Squirrel

A little red squirrel often comes poking about the old apple tree looking for something to eat. He occasionally helps himself to a free meal at my bird feeder, but I don't mind. Now, when the December weather is icy and his stomach is empty, it's hard for a squirrel to pass up a nice brown crust of bread just sitting out there in front of his eyes and nose.

I enjoy this little fellow's visits. One like him—Willie—was once my pet, a helpless little orphan I adopted after a hurricane had swept away his home.

Squirrels build their leafy nests in branches or in the hollow trunks of trees. They seem to enjoy life immensely, and spend many of their waking hours leaping friskily from one branch to another, balancing themselves with their long, beautifully bushy tails.

They are industrious, too. Always on the lookout for food, they thriftily and constantly store nuts away to be eaten on cold winter days. And no matter how many of them he has stored, the red squirrel seems never to have enough to satisfy him.

Nature has arranged it so that he'll forget where he buried some of his hundreds of acorns and nut treasures. If these nuts and acorns are left uneaten in the ground, and do not decay, then it's likely that they will grow and become trees. Thanks to the squirrels!



Hairy Woodpecker

That steady *rat-a-tat-tat* I hear in my apple tree is sweet music to my ears. A hairy woodpecker is pecking out a beat with his beak against the rough bark. When the tapping pauses for a second or two, I know what has happened: the bird has located a cocoon or a nest of fat larvae in a crevice under the bark. Then, flick! goes his long, barbed tongue, and down his throat slides a morsel of food.

I watch him at this meal-getting, and I admire his skill. Well equipped for his woodworking profession, he has short, stubby, powerful legs; and four sharp toes on each foot—two pointing forward and two backward—enable him to rivet himself to the bark of the tree. Helping him to hold himself in this vertical working position are his strong, stiff tail feathers. And for chiseling into the hard wood he uses a sturdy bill that operates like a mighty trip hammer. A shock-absorber mechanism in his head reduces the jar from the heavy, pecking blows.

The male bird makes an attractive picture, feathered in black and white with a bright red patch on his head. The female is less colorful, but is still attractive. I tempt these birds to the community by wiring a piece of suet to a limb of the apple tree.



Snowbird

The snowbirds have arrived for the winter. They have come from the coniferous groves of the far north to spend the winter in the apple tree community, and it's good that they're here. When the snow covers the ground, these friendly little slate-colored birds help make the landscape more cheerful.

I scatter bread crumbs and birdseed on the ground, and stock the feeders near the apple tree for these well-groomed little birds in their gray vests. As they fly from one place to another, the white outer feathers in their tails "flash" on and off, attracting other birds that like to band together in winter—tree sparrows, white-throated sparrows, and white-crowned sparrows.

As the weather grows milder in late winter and early spring, the snowbirds leave, a few at a time, returning to their summer homes in the cooler north. There they will build their nests and raise their families, and we'll not see them again until falling leaves remind them to return to the old apple tree.



Common Crow

Caw, caw, caw, sounds a grating call in February, and I see a crowd of hungry crows around my old apple tree. The sentinel for the day sits on a bare limb and keeps a wary eye on my yard. Others move about busily on patches of snow under the tree, pleased by the menu of shriveled apples they find there.

A few crows cling like acrobats to the underside of slender branches. They're eating the fat, tender buds at the ends of apple tree twigs. I know that this means some loss in new apple tree leaves, come spring. But I remember, too, that the old tree is host for all sorts of visitors, even acrobat crows. And those black friends are rovers who won't stay around very long. There'll be lots of buds left.

At that moment a car drives into my lane, and a black cloud of crows arises from the ground, sweeping across an open field and out of sight.

If you recognize only four birds, chances are that one of them is the crow. Crows are big, black, bold. They're noisy and they're wise. They post guards wherever they stop to rest or feed, and these sentinels croak out an alarm at the first hint of danger. A famous writer once remarked that "if men wore feathers and wings, a very few of them would be clever enough to be crows."

Crows are useful as scavengers; they'll eat practically anything that is edible, be it plant or animal. They may destroy some corn for the farmer, but in payment they also gobble up huge quantities of harmful insects.



Mourning Cloak Butterfly

As I pass through the woods near the apple tree community on a mild winter's day, I sometimes find under the dead bark of old trees a sleeping beauty—the mourning cloak butterfly. Instead of going South like the monarch—or changing, like the black swallowtail, into a chrysalis—the adult mourning cloak hibernates in some protected place during the winter.

Occasionally, if the day is sunny and the air gentle, a mourning cloak will come out of hibernation and may be seen fluttering among the leafless trees for a short while. But as soon as the temperature drops, back into hibernation he goes. He will, however, be one of the first butterflies to be seen in the spring, flying leisurely from tree to tree, or resting on a branch. His wings in the spring sun will gleam a rich chocolate-brown shade; they will be edged with a lacy border of creamy yellow, ornamented inside with a row of purple dots.

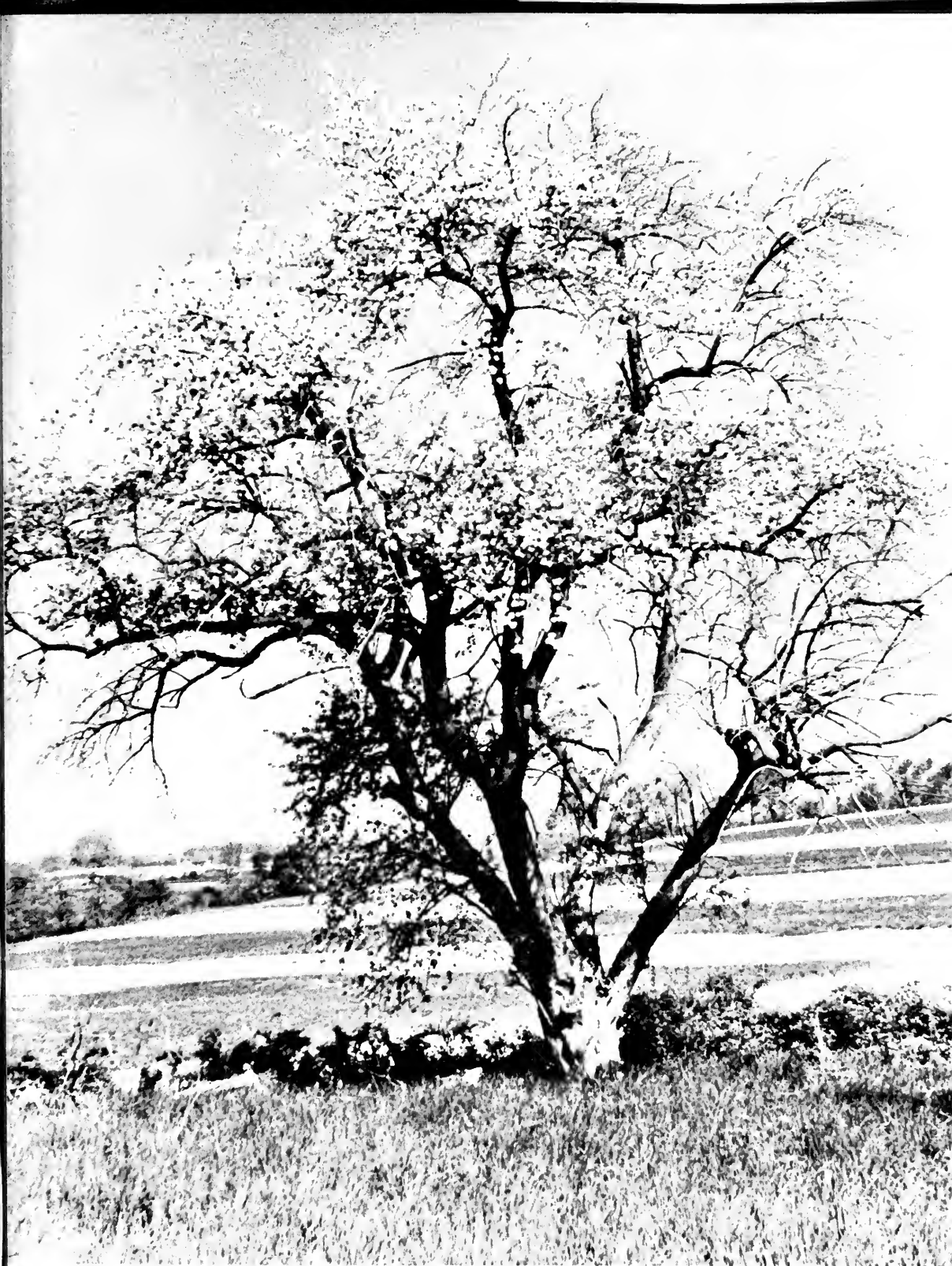
The mourning cloak likes to sip the sweet sap that oozes from a cut or break in the bark of a tree. Frequently so many of these lovely creatures gather around my old apple tree when its sap is flowing that I feel like a guest at a butterfly sugaring party.



Spring

For as the earth bringeth forth her bud, and as the garden causeth the things that are sown in it to spring forth . . .

—THE BOOK OF ISAIAH



Bluebird

Today, March 21, is the first day of spring, and it's bluebird weather.

I see a pair of bluebirds flitting gracefully in the open spaces around the old apple tree. Their blue is as brilliant as the blue of a noonday sky, and on their breasts is a splash of orange flame. I know that spring has really come when these birds greet me with their quiet, warbled song of *tru-al-ly, tru-al-ly*.

Some years ago an industrious woodpecker hollowed out a cavity in a dead limb of the old apple tree. And every year since, a pair of bluebirds has nested there. Once in this sheltered home, they permit me glimpses of their happy family life. Bluebirds are devoted parents, attentive to their offsprings' needs and well-being.

"At the end of winter, when the fields are bare, and there is nothing to relieve the monotony of withered vegetation, our life seems reduced to its lowest terms. But let a bluebird come and warble, and what a change. The note of the first bluebird in the air answers to the purling rill of melted snow beneath. It is evidently soft and soothing, and, as surely as the thermometer, indicates a higher temperature. It is the accent of the south wind." With those words Thoreau described bluebird weather. I think about what he said, and I look up at the bluebirds. "Tru-al-ly!" they agree. "Tru-al-ly!"



Red-winged Blackbird

I witnessed an April shower of male redwings today. Flaming red and orange patches on polished black wings flashed in the sky. *Ke-kon-ker-ee*, they fluted. *Ke-kon-ker-ee*, they called as they arrived in mass formation.

Soon after their arrival they soared to my meadow to await the coming of the female redwings.

In a few days these plain ladies, modestly dressed in dotted brown, will terminate their northward journey. Then immediately the redwing drama will get under way. Mates will be selected, nests built, eggs laid. Young redwings will hatch, and they'll be tenderly cared for by their parents.

Redwing families always seem to be on friendly terms with one another, and their nests are frequently located within a few yards of each other, with perhaps a dozen redwing nests in a fifty-foot square. As I walk about my grounds I look for them in tussocks of grass or in bunches of tall weeds or in low bush. And I find them easily, for the male bird, in guarding his nest, unwittingly reveals its location by flying directly above it in circles. As I draw near, both parent birds hover about my head, uttering sharp notes of alarm.

Shaped out of coarse grasses and weed stems, and lined with finer grass, the nest seems bulky, but the three to six eggs in it—of light blue, blotched and streaked with purplish brown—improve its appearance. Young redwings in the nest are a noisy crew, chirping incessantly for something to eat—preferably cutworms, grubs or grasshoppers.



Mockingbird

The male mockingbird starts singing in my apple tree in February, but he's not now in best voice. It's during the May mating season that he outdoes himself in beautiful song, fluttering into the air from his apple-tree perch and composing his music as he flies. He fills his song with love and adoration for his mate, until, almost exhausted from the fullness of this love, he drifts toward earth on slowly beating wings.

The mockingbird has been called the "king of singers." His repertoire begins with his own sweet song, and continues with imitations of the songs of all the other birds in the apple tree community. He mocks the crowing of a rooster, the cackling of hens, the cheeping of chickens. And he seems to delight in his impersonations, repeating each phrase three or four times before going on to the next.

Although the male uses my apple tree for his concert stage, his mate places her loosely-built nest of twigs and grass in the branches of a nearby dense bush or low tree. From four to six eggs are laid there—greenish blue, and rather heavily dotted with cinnamon brown.

The young birds hatch in about two weeks and are fed by both parents. In their neat suits of ash-gray, with white patches on wings and tails, the mockers rummage about, and find food enough for all their needs in and around the tree: berries, fruit, seeds, ants, flies, bugs, and grasshoppers.



Honeybee

Honeybees and appleblossoms—both are necessary in the apple tree community. Without honeybees to perform the task of pollination, there would be no abundant harvest of red apples. And without appleblossoms, bees would not have appleblossom nectar to gather for manufacturing into delectable honey.

So busy is a bee in appleblossom time that he pays little attention to me as I approach for a close-up photograph. But I must snap his picture quickly. This tireless little laborer will sip the fresh nectar from a blossom in less than two or three seconds, and will then buzz off to another one. His time for work is short; it takes but a few days for the pink and white flowers to unfold and absorb the required amount of spring sunshine and moisture, and then the soft petals drift to the ground, and tiny apples begin to form.

Take away honeybees from the apple tree, and apple crops will be sharply reduced, almost completely lost. Deny a honeybee the privilege of sipping appleblossom nectar, and the production of one of man's sweetest and most perfectly prepared foods will be curtailed.

I like honey; and I like apples. And I like honeybees hovering around my old apple tree.



Robin's Nest

My favorite among the many nests built in my old apple tree is the robin's—a bowl of mud, reinforced with twigs, string and paper.

This spring I watched a mother robin building her home. In fact, I helped her build it by furnishing her with some string and paper scraps. And she had a choice of mud from my fields. The pert young lady seemed pleased with my gifts, and let me observe her at work during five days of patient carting and constructing.

Straw and string and scraps of paper were used to form a bowl-shaped nest on a branch. This part of the task consumed two days. Then she plastered the inside with mud carried pellet by pellet to the nest in her beak—third day. Now she shaped the nest by sitting in it, hopping and flapping and moving about, pushing the wall into shape with her breast and wings. Finally—fourth and fifth days—she lined it with dried grass.

Later I saw the four eggs she laid there; they were, of course, robin's egg blue, and this greenish-blue was opalescent against the background of pink and white apple-blossoms. Another few days passed; the petals fell—and here were four baby robins, well fed on caterpillars and bugs and worms, crowding the nest to overflowing. A young robin has a speckled breast, as you see in the picture. Nature provides this protective coloring while the robin is young and cannot fly from its enemies. The robin's spectacular red vest is a badge of maturity.

Occasionally, the mother robin would fly to this nest with a nice red cherry for dessert. Robins like cherries, either wild or cultivated, and that's why some people make sporadic efforts to frighten them away. But no one wants to keep the robins away for long.



Orchard Oriole

A dignified bird, shy and retiring, came into the old apple tree this morning, and surveyed the high, dense branches for a nesting site. Just back from his winter vacation in southern Mexico, this orchard oriole appeared ready to settle down to family affairs in our community. He was tardy this year, though; he usually returns in May.

Although not as dashing and colorful as the Baltimore oriole, one of his cousins, my new guest is a refined gentleman dressed in excellent taste. His head and neck and the upper portion of his breast and back are a deep, glossy black. Also black, but neatly edged with white, are his tail and wing feathers. And the rest of his body is a dark chestnut brown.

The female orchard oriole (wearing less striking clothing of olive, yellow and white) usually arrives a few days afterward from her southern vacation. But what she lacks in raiment she makes up for with her ability to weave a beautiful basket-like nest from choice strands of green orchard grass. In this basket the female usually lays five bluish-white eggs speckled with gray, brown and black.

From the moment the male orchard oriole arrives until early July, when his family is raised, the apple tree community is alive with his vigorous singing. He stays for a while and a whistle, and then goes away.



Ladybird Beetle

As I walked through my apple tree community this morning, a little two-spot ladybird beetle lit on my hand. When I tried to pick her up, she folded her stubby legs and fell to the ground, "playing possum." I watched her as she lay "dead." A moment later she extended her legs and flipped herself upright. Then she ran away as fast as her six little feet could carry her.

One of the best-liked of the many varieties of brightly colored ladybird beetles is the "ladybug" who wears a red dress decorated with many black polka dots. Of course the male "ladybug" does, too.

A ladybird beetle is a welcome resident in my apple tree community. She and her larval offspring especially are excellent exterminators of the scale insects and plant lice that suck juices out of tender leaves and plant stems; they do the job more efficiently than most chemical spray solutions, and they're not nearly so expensive. No wonder, then, that ladybugs are now bred commercially, and are sold to orchardists and vegetable growers by the gallon.

A gallon contains some 135,000 ladybirds, and costs only a few dollars. And when these workers are put on the job, they will control most of the insect pests in a five-acre stretch of vegetation.



Catbird

From a secluded retreat in the upper branches of the apple tree the catbird, unpredictable opera star of the apple tree community, is singing a sweet, high, one-note trill that's climaxed with a sharper, higher note. And it goes on for hours. Then, perversely, his mood changes, and I wince at his interpretation of the harsh mewling call of a cat, the sound of a squeaky wheel, or the grinding, grating noise of a buzz saw.

Nevertheless, I invite catbirds to live near me. They enjoy living near people, and will accept any invitation that promises a few low bushes, especially berry bushes, where they can find a sheltered place for a nest. For this small favor catbirds will return spring after spring with their animated greetings.

One catbird nest can be found in a mock-orange bush close to my home. Newspapers and chewing-gum wrappers were woven into the dry grasses that made up the nest, and then three beautiful greenish-blue eggs were laid in it.

As I photographed them, the mother catbird flew over and around me with cries of distress. A catbird is noted for her maternal devotion to eggs and young, and will even rush to the assistance of a bird of another species when an alarm is sounded.

When my catbird visitors arrive in spring they announce their presence with suspicious, penetrating catcalls. But by fall, when they are ready to leave, they slip away without a single note of farewell. Yet I feel sure they will return with the spring and will once more announce the opening of the apple tree community opera season.



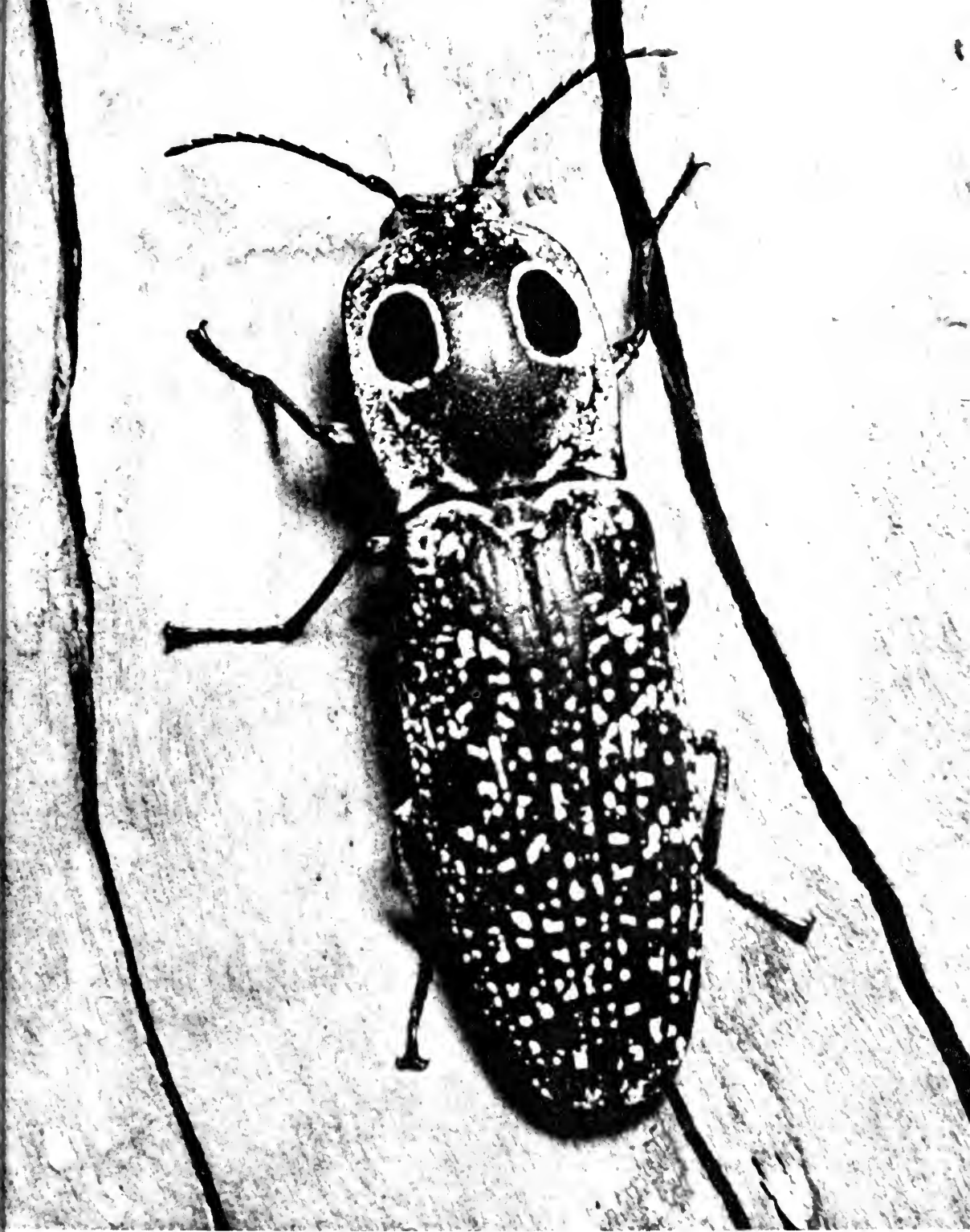
Click Beetle

A noisy-winged, inch-long click beetle flew against the trunk of the old apple tree, landed, and folded his broad, black, flying wings under their hard covers. Now seeming to glare menacingly at me were two velvety black eyes, rimmed with white. But these "eyes" do not see; they are part of a fearsome false face, as false as an Indian's war-paint or mask, and are designed to terrify the potential enemy.

This beetle has no sting to discourage the predator, and no powerful wings with which to escape. But his endlessly staring eyes do scare away birds; and in further self-protection he is able to fling himself high in the air from a vulnerable, upside-down position.

The click beetle is usually found around old trees and decaying stumps. The female places her eggs in rotting wood, and soon they hatch into yellowish-brown worms—wire worms, they are called, because they are slender and tough.

There are many kinds of click beetles. The wire worms of some live in the ground and feed on the roots of plants, and this can mean ruin for a farmer's carefully cultivated crops. I don't worry much about this fact, though, because I know that the other residents of the apple tree community—birds, opossums and skunks, for example—will do away with many beetles and worms before they've had a chance to injure crops.



Indigo Bunting

Mr. Bunting, Esquire, is an illustrious member of the indigo bunting family that lives in the apple tree community. Dressed in rich blue feathers from head to tail, he adds a sapphire flash of color to the old apple tree.

But what a surprise it was when I became acquainted with plain little Mrs. Indigo Bunting, who built her nest in a clump of nearby blackberry bushes. She has only a tinge of blue in her feathers, and resembles a common little brown-striped sparrow.

Our female indigo bunting built her well-constructed nest from orchard grass and animal hairs, and placed it safely out of reach in the thorny protection of the blackberry stems. Three bluish-white eggs laid there soon hatched into three hungry baby buntings. The fledglings have the color of their mother until they are practically grown; not until their first molt do the male youngsters begin to take on the deep blue of their father.

Throughout the day, while Mrs. Bunting kept herself busy feeding and caring for her young, Mr. Indigo Bunting stood guard on a nearby perch in the old apple tree, maintaining a constant watch over his wife and children. When I went near the nest he quickly voiced his alarm with a persistent *cheep, cheep, cheep*.

The male indigo bunting is a sweet singer. After most birds cease singing for the summer I often hear him pouring out his melodious notes on a hot August day. And I notice that he sings his best when perched on the topmost branch of the old apple tree with the clear blue sky overhead.



Epilogue

A tree can be a swing and a slide and a jungle gym, and for many children, my special apple tree has been all these things. But for many other youngsters—for my own four grandchildren, I am glad to say—it has been more. For them as for me, it is an enchanted place.

Here they first saw a determined robin building her nest from bits of grass and pellets of mud. Here they first watched a golden spider weaving a web between goldenrod stalks. Here they spied a timid, tiny, whitefooted mouse scurrying through orchard grass, searching for weed seeds.

A child who sees with clear eyes will perceive the excitement, sense the mysteries, and catch the rhythm and the meanings of nature's work. The enchanted place need not be an apple orchard; always, nearby, there is a park or a lake or a brook or a garden. We speed down highways without seeing the places where the wild creatures live, where things fly or walk or crawl or grow toward the sun. When we pause, when children and parents together learn to look and listen, the world is suddenly a richer place.

It is far better to become friends with a staring owl in an old apple tree than to see a hundred stuffed owls in a museum. You can read and read about the friendliness of almost all of nature's creatures, but how much better it is to learn this lesson from an opossum or a sparrow hawk or even from a black and white striped skunk. That little fellow is aloof, but he's amiable unless he believes that you are about to attack him. Yet even then he tries to ease the situation. First he stops in his tracks and eyes you intently, as if asking you to leave. Then as a second warning he slowly moves his head from side to side and stamps the ground with his forepaws. Finally he raises his long bushy tail and arches



it over his back in preparation for battle. Only if these warnings go unheeded will he release his unpleasant scent.

When in their own outdoors you have watched a deer or a squirrel or a butterfly, you want to protect our wildlife and our plants and the little things that fly or crawl. Human, insect, plant and animal life are bound together in a great, eternal chain. Scientists know that these individual links cannot be weakened or severed without great harm and danger to the whole. The hand of the Almighty is in each one of these, seeing to it that there is this miracle of balance and order.

That is why I think of my apple tree community as a consecrated altar in God's temple.







*You'll meet
these residents of
the apple tree community*

The noisy killdeer—a clever bird who stores chips of stone to camouflage her nest.

A praying mantis—and you'll see this weird insect preparing her cocoon . . . tiny young mantids emerging . . . a battle between mantis and grasshopper.

A gymnastic turtle—using his long neck to flip himself into position. (Mr. Smith photographed the famed *Life Magazine* sequence on turning turtles.)

The hairy woodpecker—whose sturdy beak operates like a mighty power chisel.

The click beetle—who wears a mask as to rifying as a witch doctor's.

The female monarch butterfly—she instinctively, unerringly flies over air "high ways" from the North to the South.

An opossum—carrying her young in pouch, "playing dead" when she is in danger.

A white-tailed deer—driven by hunger to leave the hills, and now a timid member of the community.

Dozens of other animals, birds and insects and the apple tree itself—half a century old, still going through its cycle of seasons, the center around which many life activities revolve. You will see in it an inspiring symbol of the way all living things are linked in a great, eternal chain.



A CHANNEL PRESS BOOK



George Smith . . . and friend

The friend is a sparrow hawk now residing in the apple tree community. Found as a fledgling after a windstorm destroyed the nest which was his home, this member of the falcon family darts to his perch on George Smith's shoulder at the sound of a shrill whistle. But very soon he is likely to spread his twenty-two-inch wings and soar away, perhaps never to return. He'll feel the urge to travel. George Smith says that this is the way it should be. He befriends the birds and animals and insects that make their home on his 75-acre Pennsylvania farm, but he never cages or domesticates them.

By profession Mr. Smith is editor of a thriving country newspaper, the *Quarryville Sun Ledger*, and in the past he has served as high school principal, science teacher, and United States Marine. Nature lovers and scientists know him best, however, for his larger-than-life photographs and superb articles in such publications as *Look*, *Life*, *Nature*, *Audubon Magazine*, *Science Newsletter*, *The Museum of Natural History Magazine*, and *The New York Times Magazine*.

After his busy day at the newspaper is done, this writer-photographer-naturalist can usually be found at work on his farm — restoring his century-old stone house, planting and pruning, or patiently taking close-up photographs alongside the stream, in the orchards or meadows, or on the hills near his "apple tree community."