The Living Year

THE BEAUTY AND WONDER OF NATURE'S SEASONS

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by

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January

It snowed all day. The snowflakes began to fall shortly after daybreak. They were light and airy, and the slightest breeze blew them merrily along in whirling clouds.

The storm appeared to be much like those we have in early spring, which last but a short time and then pass away. But as the morning advanced, the flakes continued to come down, and before long, patches of brown earth could be seen only around

the base of a tree or in a sheltered corner of the house and barn. It had become colder, too, and the wind had begun to blow with more intensity. Perhaps a real snowstorm was in the offing.

By mid-afternoon, the stone wall that bordered the road had become all but lost from view. The wind now howled about the house and blew the flakes into drifts that grew higher and higher. Grotesque shapes took form on the landscape as trees and shrubs became wreathed in snow. All life outdoors seemed to be suspended, waiting for the storm to run its course. A lone chickadee appeared, however, in a nearby apple tree. He seemed gay and happy, in spite of being buffeted by the wind and snow, and went about his business of finding insects with cheerful industry.

It was still snowing when darkness fell. But during the night, the storm passed, for when I awoke, the sun was just beginning to rise above the eastern horizon. Through a window all but frosted over, I looked out at the whitened landscape and was dismayed at the amount of snow that had fallen. Only the tall evergreens in the distance might provide fare for those who were fitted to eat at their table; for a while, at least, fruit-laden shrubs and the withered stalks of weed plants would be no festive board. Even the feeding stations, which I had put up around my house, were so completely covered as to be wholly inaccessible; and when some time later I managed to get to them, wandering prints testified to disappointed visitors.

Prints are easy to read if you are acquainted with them, and those which I found in the snow told tales as clearly as if I had been an eyewitness to the behavior of my feathered and furred visitors. The almost undecipherable prints of a sparrow revealed the futile attempts of the little bird to gain entrance to a sheltered feeding station, which, by some malicious quirk of fate, had been entirely filled with snow. The lone print of a woodpecker at another station was a telltale sign that the bird had made a brief appearance but, finding nothing to eat, had presumably flown off to more productive feeding grounds.

On the ground, I found the prints of a crow and a robin. I knew

the crow would find food somewhere, but the robin seemed faced with the bleak prospect of starving to death. Several starlings had also left their calling cards, but at the moment they were nowhere to be seen, although I was sure they would return. The tracks of a gray squirrel, who was in the habit of visiting daily a tray I had set out for his own private use, marked an erratic course about the grounds. I could read his tracks as clearly as if I had watched him running out of the woods and hurrying eagerly to the tray containing his breakfast. I could see him, in my mind's eye, grubbing about vainly in the snow that covered it, and, with disappointment in his heart, search the grounds before he reluctantly returned to the woods, where he doubtless hoped to find a nut or two. He did return later in the day, when his visit was not unrewarded, for I had, meanwhile, cleared the feeding stations of snow and replenished them for any hungry callers.

Some people abhor squirrels and consider them a nuisance; personally, I cannot help liking these frisky, bright-eyed little creatures and would willingly suffer the loss of a few apples or a few ears of corn rather than forgo the pleasure of their visits. I have always found them responsive to my overtures of friendship and have long since discovered that their companionship provides a few moments' pleasure and comfort in this disquieting world. If you have ever had one of these little beggars climb your coat and take a nut or two from your hand, you know what I mean. The gray squirrel has been indicted for robbing birds' nests, but the number of birds he might destroy in the course of a year are certainly few compared to the number that lose their lives because of other enemies or other causes, such as storms. He has also been charged with stealing the food we set out for the birds in feeding stations and trays, but why shouldn't he, if we fail to take the proper precautions to safeguard it? I have seen food scattered on the ground and placed on window sills and other similar places, and then have listened to complaints that the squirrels ate most of it.

The gray squirrel is not a fair-weather friend, and if you treat

him right, he will always remain near at hand. Even during the winter, he is abroad except during a severe storm, when he retires to his home until it passes. He does not hibernate and does not have to lay up large quantities of food to see him through the winter, being confident he can find what he needs by diligent search. But he has the habit of digging holes and hiding a nut here and there for future use. The next time you see a squirrel so engaged, stop and watch him for a few moments. After he has dropped a nut into the hole and refilled it with loose soil, observe how he presses the soil firmly in place with his front feet. He is careful, also, not to leave any trace of his excavating, for before he goes off to hide another, he covers the spot with grass and leaves.

These hidden nuts do not wholly sustain him during the winter, and he must scurry about to find other food, such as the nuts which still remain on the trees. Of course, he is not the only claimant for the nuts and must compete with the red squirrels and redheaded woodpeckers. The woodpeckers seem to think the nuts are exclusively theirs and enforce their claim with their sharp bills. The red squirrels, too, resent their larger relative and, strangely enough, will not hesitate to attack him.

I don't know whether the gray squirrel is an out-and-out coward or just pacific by nature; at any rate, he will not engage the red squirrel in combat and usually retires upon the latter's appearance. In the face of the competition offered by the red squirrels and woodpeckers, it would seem unlikely that he would get many nuts, but he has solved the problem by rising early and gathering his share before the others arrive.

During the days following the snowstorm, I took several walks through the nearby fields and woods, and in the snow I found the tracks of many two-footed and four-footed creatures. I discovered the prints of a deer mouse among some wild rose bushes, and in a clump of sumacs, the tracks of a cottontail. I also found the tracks of the ruffed grouse in a wild grape thicket. With some curiosity, I followed them across an open field to the edge of the woods, where they disappeared in a profusion of bushes and

undergrowth. I had no way of knowing whether the bird was in the immediate vicinity or had vanished, for it was impossible to follow the tracks any farther or, for that matter, to locate them in the tangled undergrowth.

Apparently, I was closer to the bird than I suspected, for, as I poked about, there was a whirr and buzz almost at my feet, and with hysterical notes of alarm, the grouse rose from the ground and flew off into the woods. The noise set a blue jay to screaming in the distance, and I was reminded of Thoreau's description when he wrote of "that unrelenting steel-cold scream of a jay, unmelted, that never flows into song, a sort of wintery trumpet screaming cold, hard, tense, frozen music, like the winter sky itself..." A moment later, I saw the bird, a brilliant spectacle against the snow, but only for a moment, as he quickly flew to a nearby tree and was lost among the snow-covered branches.

I shifted my position a few feet and saw him perched on a limb. I need not have moved, for a jay has an insatiable curiosity and would soon have reappeared to learn, if he could, what I was doing there. Call the jay a thieving rascal or whatever name you will, he nevertheless has many engaging qualities, and we would miss him were he to vanish forever from our woods and thickets.

Although nature appears at its lowest ebb in January, there is still much of interest to be found in the outdoors. To be sure, it is the time of the year when I prefer to sit snug and complacent beside my warm fireside; yet if I do not occasionally get outdoors and roam through the fields and woods, I have missed something vital and stimulating. Even though there is a sharp bite to the air and the snow makes walking difficult, all discomfort is quickly forgotten when I spy among the naked branches of a tree a little mote of gray and white moving about with lively abandon. I see the chickadee at all seasons, but it is in the winter that I really notice and appreciate him. For when all nature seems to have retired before the icy blasts of the north wind, the chickadee is a-wing, gay and happy, enlivening the winter scene with his amusing acrobatics and merry chatter of "chick-a-dee-dee-dee-

dee." He actually seems to enjoy a snowstorm, and in the most bitter weather, I find him frolicking from tree to tree, laughing and joking in his own inimitable way. He is the bird of whom Emerson wrote:

> This scrap of valor just for play
> Fronts the north wind in waistcoat gray,
> As if to shame my weak behavior.

I often find a white-breasted nuthatch or two in company with the chickadees, for they hunt together all winter for beetles, caterpillars, and the pupae of insects among the cracks and crevices of trees. Watch these birds cavort about a tree and you may get the impression they like to view the world upside down since the chickadee often hangs head down from a twig while the nuthatch usually alights head down on the trunk. The latter has feet adapted for clinging to the bark and is able to run so rapidly about on the tree that he is often called the "tree mouse." He is a most industrious little bird, always on the move, climbing easily up or down the trunk, straight up or straight down, or circling it, according to his mood.

I have always thought that the chickadees and nuthatches get along well together, and I believe they do if they confine their activities to their own hunting grounds. But I am not sure they remain on friendly terms if one of them should invade the other's territory. I have noticed, for example, that whenever a chickadee is feeding on one of my trays and a nuthatch appears, the newcomer pecks and harasses the chickadee until the latter flies away and leaves the nuthatch in sole possession.

Many visitors call at my feeding stations during the course of the winter. One year, several evening grosbeaks visited a tray I had erected outside my study window. I mention their unexpected visit because it was the only time I had ever seen these birds in my grounds. I had just finished lunch and had entered my study when I happened to glance out the window. At that very moment,

two evening grosbeaks alighted on the tray and proceeded to feed. The appearance of these birds from the Canadian North was startling, and before I could recover from my surprise, they were joined by several others. I approached the window warily and saw on the ground a flock of possibly fifty or more, though an accurate count was impossible, for they suddenly took flight and disappeared into the sky. I have always wondered why they did not tarry longer, or return, or why I have never seen these birds in my grounds since, as they are rather quiet and sedentary, especially where food is plentiful, and make friends easily, and when well treated become unusually tame. Every winter, I have looked forward to another visit, but though I have occasionally seen them in the woods, feeding on the seeds of conifers and various deciduous trees, I have never had the opportunity, so far as I know, of playing host to them again.

As I write, I recall another winter's day. It was bitterly cold, with the thermometer hovering about the zero mark. A thick blanket of snow covered the landscape, and the wind whirled the snow in maddening gusts. But in spite of driving flakes and low temperatures, a flock of tree sparrows found good cheer in a nearby field, where brown stalks of weeds and grasses stood in phalanxes against the sky. They flew, with cheerful industry, from one brown patch to another, clinging to the dead stalks as they carefully explored them, picking out the seeds.

Every now and then, one or more, made thrifty by the wintry dearth, would hop around upon the snow, searching for seeds that had been scattered by the wind. It was not alone a serious quest for food; it was also a frolic in which the sparrows' gay notes fell upon the air like the tinkling of sleigh bells.

Weedy and bush-grown fields are also hunting grounds for goldfinches and juncos. Only yesterday, a flock of goldfinches descended upon the field back of my house. These birds are at their best in late summer or early September, when they may be seen in flocks, feeding upon their favorite thistle seeds. But even in January, when their bright summer colors have faded to

a more somber hue, they are a delight to watch as they meticulously search for seeds on the dried and withered stalks which, in the bright sunshine, trace delicate and intricate shadows on the snow.

With the exception of one or two species, such as the snow bunting and Lapland longspur, which habitually seek open fields far from all cover and which in January can be found along the coast, feeding on the seeds of the beach grass, most of our winter birds prefer sheltered places: thickets and bush-grown roadsides, orchards, cedar and alder swamps, and stands of pine and other coniferous trees. In an alder swamp, I have occasionally come upon a flock of redpolls, fearless and usually friendly little birds, but sometimes during the winter season, extremely wild. Crossbills and pine grosbeaks frequent stands of coniferous trees when these trees bear fruit; golden-crowned kinglets and brown creepers apparently prefer woods of oak and maple. In hemlock groves, I often find the juncos, merrily chattering away, although these birds, as I have already remarked, may also be found in fields. These birds are truly winter birds for they seem to enjoy the cold and snow and as long as they can find enough to eat, are frequently seen throughout the winter months.

As January advances and heavy snows begin, hairy woodpeckers leave the forest and appear in villages and orchards in search of food. The downies, of course, are always near at hand, and the silence of the winter woods is often broken by the tapping of their bills as they search for insects on the trunks and branches of trees.

It is a mystery how the woodpecker can unerringly drill into the very spot occupied by an insect beneath the bark or wood. Some believe that the vibrations produced by a grub as it cuts away the wood with its strong jaws are conveyed through the beak and skull of the bird to the brain, but this does not explain how it can locate small grubs that make no audible sound or grubs and ants that lie dormant and motionless in winter. Perhaps the bird can fix the exact location of the burrow by tapping with its beak

in somewhat the same manner that a carpenter, by striking the wall of a room with a hammer, can determine the position of a timber hidden under laths and plaster.

The woodpecker is a familiar bird, and yet few of us realize how eminently successful he has been in the struggle for survival. Long ago, he discovered that to have his mate lay her eggs in a hollow tree or in a cavity which he excavated would protect her eggs better against the elements and enemies than if they were laid directly on the ground, or in a comparatively frail basket made of twigs, grasses, or other material.

But even earlier in his development, he had become so modified in form and structure that he could assure himself of a constant supply of food in the form of the insects that are to be found at all times of the year in burrows and beneath the bark of trees. His short, stout legs and toes, furnished with strong, sharp claws for clinging to the bark, are well adapted for climbing. Even his tail of stiff feathers, terminating in sharp spines or quills, can be pressed against the bark as a prop or brace to hold him in an upright position while at work. But such equipment would be useless did he not have the means of penetrating the wood and dislodging the insects hidden there. His hard chisel-shaped beak, however, forms an exceptionally effective wood-cutting instrument and his hard skull is constructed to absorb the shock of constant hammering. For spearing and conveying the insects to his mouth, he has a highly specialized tongue that is long and cylindrical, with a tip hard as horn and with many strong barbs, and operated by a marvelous mechanism that can extend it far beyond the beak. Thus while most birds, of necessity, must be content with such insects as they can find on the surface of plants, in open crevices, or flying in the air, or with such seeds and berries as are readily available, the woodpecker is able to find food at any time.

Although much animal life is in a state of dormancy or rest, the January scene is not wholly one of inactivity. This is the month when raccoons mate and bear cubs are born in caves or

in hollow trees. Mink forage along the frozen banks of brooks and streams, and foxes prowl the silent woods in search of cottontails, mice, and other food.

Few animals have as many enemies as the cottontail. Hawks, owls, crows, skunks, foxes, red squirrels, weasels, mink, and snakes — all animals, indeed, that can catch him — consider him legitimate prey; and then there is your hunter, man and boy, who, with the odds overwhelmingly in his favor, hunts him in the name of what he likes to call sport.

Every year millions of these little animals lose their lives, and if Nature in her omniscience had not made him a prolific breeder, he would long since have become extinct. Yet in spite of his many enemies, the cottontail lives and flourishes.

Anyone not familiar with this little inhabitant of the brier patch and hedgerow might think him wholly defenseless against his enemies. This is not so, of course, and I doubt very much if any animal that Nature has created is without some means of defense.

Many a cottontail has saved his life by "freezing" or remaining quite motionless, except for the trembling of his whiskers and the almost imperceptible movement of breathing. I have seen a cottontail "freeze" and while no amount of staring would disconcert him, I admit that when I approached too closely he quickly raced away.

The cottontail is by nature a timid animal and at the slightest sound of danger will usually seek safety beneath some cover. He can travel with considerable speed over the ground, his long legs propelling him forward in a series of jumps which sometimes cover a distance of eight feet or more, but he has none of the specializations for speed seen in the jack rabbits and depends for safety more on the protection afforded by the undergrowth than by flight. He often makes use of a deserted burrow of a woodchuck or skunk, especially during the colder months, as a retreat in which to spend the daylight hours or as a place of refuge in time of danger, though sometimes such a retreat fails as a sanctuary if he is pursued by a mink or weasel, for these animals can enter almost any burrow, however small.

It is questionable if many of these animals succeed in following a cottontail to his burrow, for, as a rule, the cottontail, when pursued, uses the runways leading to the burrow. These runways crisscross and twist and turn so much that he can usually elude any pursuer or at least escape long enough to find a place of safety. Yet, the goshawk will follow these paths on foot in a most unhawklike manner, to drive him out into the open and into the waiting talons of his mate, for goshawks usually hunt in pairs during the winter.

Several years ago, I spent a pleasant afternoon with a group of young naturalists, following the wanderings of one of these rabbits. It was an elementary lesson in tracking, but one which I think they enjoyed immensely, as we traced the somewhat erratic course made by the animal the night before on his search for wild rose hips and other hardy berries. As rose hips and berries, however, are not too plentiful in the winter, the cottontail also feeds on the twigs and bark of small trees and bushes. He is partial to sumac bark, as I pointed out to my young friends, for as we followed the tracks we came to a clump of sumacs where the little animal had recently been at work.

That same afternoon, we found pellets of bone and fur under various trees, evidence that owls had been hunting in the vicinity. Owls are beneficial birds and in the field of usefulness are the complement of hawks, the hawks working by day and the owls by night. They feed on mice and other ground animals which they capture with their feet, the prey, unless it is too large, being swallowed entire and the hair and bones disgorged afterwards in the form of pellets.

We also found other things of interest. We encountered some flies, for instance, and I explained to my astonished audience that they were not true flies but species of stone flies that complete their nymphal lives in ice-rimmed streams in winter and appear in the frosty air as adults which mate on the banks. True flies, such as bluebottles and greenbottles, however, may be seen in January. They emerge on warm days from their winter retreats

in the corners of attics and crevices of outbuildings, and usually starve as a result of appearing out of season.

Insects are rarely seen during January, but a few species, such as the springtails, are in evidence. These are small, grotesque-looking creatures with a device that permits them to jump or spring when disturbed. They may frequently be seen as dark patches on the quiet waters of still unfrozen ponds.

Insects seem to be rare in winter compared to the countless numbers that we find during the summer months; yet they abound in a less active state if we know where to look for them. They may be found everywhere, passing the winter in all the stages that comprise their life cycles. The light buff oval egg masses of the gypsy moth, for instance, may be found on the trunks of trees, on fences, in the crevices of rocks, on piles of wood, and in similar places. This is the insect that a well-meaning amateur entomologist imported from Europe about 1868 with disastrous results. Many millions of dollars have been spent in trying to get rid of the gypsy moth, but all that has been accomplished so far is to confine it to New England and a small area in New York and New Jersey.

Another familiar and occasionally troublesome insect that passes the winter in the egg stage is the tent caterpillar, whose protectively varnished egg bands are conspicuous on the twigs of the wild cherry. Some years ago, children were urged to destroy the eggs and we were admonished to burn the nests and destroy the caterpillars in the spring. We were even advised to cut down the wild cherry trees if necessary. If we had cut them down as advised, what would have happened? We would simply have forced the females to lay their eggs on apple trees and other related plants with the result that we would have changed the tent caterpillar from an eater of wild cherry leaves to an eater of apple leaves, since experiments have shown that when a leaf-eating species is deprived for several generations of its normal food and reared on the leaves of some other plant, it will adopt the new food as “normal.”

Perhaps it is not even advisable to burn the nests or destroy the caterpillars, for it has been found that the egg masses contain parasites that keep in check the tent caterpillars and probably other caterpillars as well. Should we destroy these parasites, it is possible we might upset a whole chain of delicate balances.

Equally conspicuous on the twigs of deciduous and evergreen trees are the curious egg sacs of the bagworm. They are made of silk, in which are fastened leaves or bits of stick. If we examine these bags, we will find many of them empty, others full of soft yellow eggs. These bags are made by the full-grown larvae which pupate within them. When the male moths are ready to emerge, the pupae work their way to the lower end of the bag and halfway out of the opening at the extremity. Then their skins burst and they emerge. The adult females, however, partly emerge from the pupal skins and push their way to the lower end of the bags where they await the approach of the males, since they are entirely destitute of wings and legs. After mating, the females work their way back into the pupal skins where they deposit their eggs, mixed with the hairlike scales from the ends of their bodies. Then they work their shrunken bodies out of the bags, drop to the ground, and perish. The eggs, meanwhile, remain in the pupal skins until they hatch the following spring.

Fallen logs and rotting stumps serve as a winter retreat for many insects, and in the soft wood we may find the nymphs of the wood cockroach, the only outdoor roach that winters in the north. Frayed cattail heads may seem a poor place in which to winter, but the larvae of the cattail moth find them quite serviceable. The half-grown larvae of the viceroy butterfly spend the winter in silken cases, suspended from the twigs of willow and poplar, and the larvae of the pistol-case bearer hibernate in pistol-shaped cases attached to apple twigs. The odd-shaped cases are usually overlooked unless you know where to look for them. If you are in the habit of getting outdoors during the winter, you will be more apt to find the large and conspicuous silken cocoon of the cecropia moth, the largest of the giant silkworm

moths. Children call this cocoon the "cradle-cocoon," because it is shaped like a hammock and is suspended lengthwise beneath a branch or twig. Cleverly made, it consists of two walls of silk, the outer one being thick and paperlike and the inner one thin and firm; between these walls is a matting of loose silk which provides excellent insulation and makes a snug retreat for the wintering pupa.

Like the insects, spiders spend the winter in all stages of life. Adults and young spiders of various ages hide in a variety of shelters, and many small spiderlings stay through the cold months sheltered within the egg sacs in which they have already hatched. Only yesterday, while examining the dried-up heads of some thistles, I found the pear-shaped egg sac of the orange garden spider fastened to one of the stalks by many ropes of silk so that the storms of winter might not tear it loose. I opened it and found a large number of spiderlings, which immediately crawled all over my fingers. These spiderlings are cannibalistic, the stronger feeding upon their weaker brothers and sisters so that from a sac which in early winter contains a large number of spiderlings, there emerge in the spring a much smaller number of partly grown spiders. Sometimes the egg sac of this spider is infested by ichneumon parasites, which in turn are preyed upon by secondary parasites.

Quite sure that I would also find the egg sac of the banded garden spider if I searched diligently, I spent several minutes looking about before I discovered one between the dried leaves of a goldenrod. This egg sac is quite different in form, being cup-shaped with a flat top. In making it, the spider makes the flat side first, then attaches the mass of eggs to it, and finally covers the eggs with the cup-shaped portion.

Later that same afternoon, in turning over a field stone, I found on the underside several brown papery disc-shaped egg sacs of a drassid spider. I also found beneath the stone a carabid beetle, a millipede that immediately disappeared into the soil, and several sow bugs.

Thus January is not the month of desolation which it might appear to be to the unobservant and uninitiated. Even your ardent fisherman need not be without his sport. True, many freshwater fish rest quietly upon the bottoms or hide among leaves and rocks and take little or no food. But some move about beneath the ice and feed more or less regularly. Some of them even bite freely for baitfish (the pickerel, for instance) and may be taken through the ice.

January is not without beauty, too. Along roadsides, the purplish-red stems of the red osier dogwood give warmth to the wintry landscape, and in rocky crevices of woodland hillsides, the common polypody, with its rich foliage, softens into beauty the rugged outlines of the barren winter landscape. In the woods, the green fronds of the Christmas fern add their touch of winter cheer as the ground pine and ground cedar, in heavy ermine cloaks, brave the wintry elements to color the shadowy woodland floor. While the beech's upright bole casts purple shadows on the snow and its polished brown stems describe an exquisite tracery against the sky, other trees silhouetted against a cloudless sky assume a form and character lost to us when robed in leafy splendor. We see them now in a different perspective, not as a means of shade from the hot summer's sun but as living things each with its own individuality, with its own composition, like so many pictures in an art gallery — many, varied, and ever-changing.

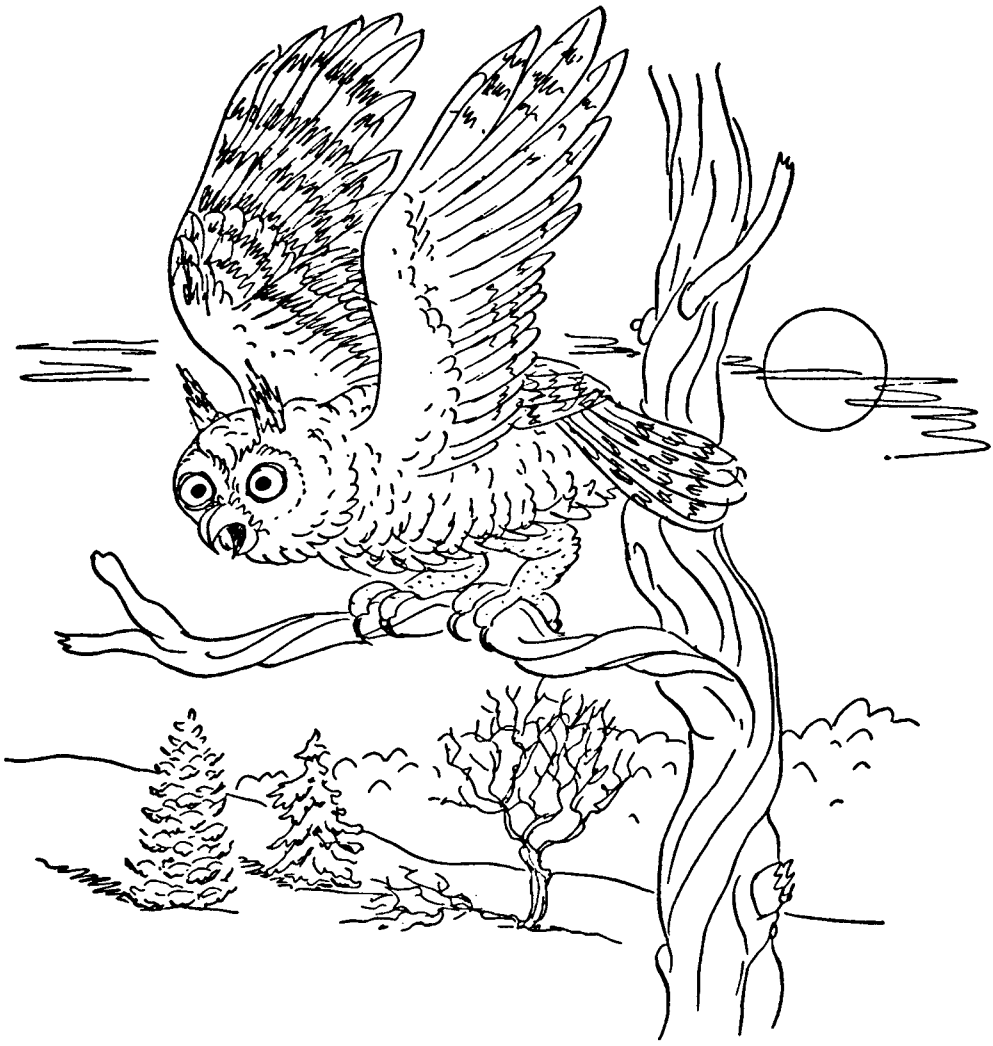
They have their own name plates, too, if one can read them. There is, for instance, the red maple with its red buds and twigs, the tupelo with its dark blue fruit clusters, and the poison sumac, its globular ivory berries hanging from the naked branches in long, slender, drooping pendants mutely reminding one, "Do Not Touch." Even old tree stumps, decrepit and unsightly, gradually crumbling into eternity, attempt in a lavish display of fairy candelabra to pass gracefully from the scene by becoming decked with the branching coral-like cladonia, whose red tips are in rich contrast with their frosted green branches. And if you want to peek into fairyland, examine these lichens with a magnifying glass.

NATURAL EVENTS IN JANUARY

- Foxes hunt for rabbits, field mice, and other food.
- The silence of the winter woods is broken by the tapping of woodpeckers searching for insects on the trunks and branches of trees.
- The light buff oval egg masses of the gypsy moth may be found on the trunks of trees, on fences, in the crevices of rocks, on piles of wood, and in similar places.
- The purplish-red stems of the red osier dogwood add a touch of warmth to the wintry landscape.
- Crossbills, pine grosbeaks, and redpolls feed on the cones of evergreens.
- Various stoneflies complete their nymphal lives in ice-rimmed streams, appearing in the wintry air as adults and mating on the banks.
- Pickerel bite freely for baitfish and may be caught through the ice.
- Cottontails browse on buds and tender twigs. The bark of the sumac is particularly favored.
- Flocks of juncos animate hemlock groves.
- The protectively varnished egg bands of the tent caterpillar are conspicuous on the twigs of wild cherries.
- The globular ivory berries of the poison sumac hang from the naked branches in long, slender, drooping clusters.
- Tree sparrows and goldfinches may be seen in fields and bushy growth, feeding on weed seeds.
- Springtails mass in dark patches on the quiet waters of still unfrozen ponds.

- Except on extremely cold days, red and gray squirrels enliven the woodland scene.
- The green fronds of the Christmas fern brighten the snow-covered woods with their winter cheer.
- Heavy snows begin, and as the snow cover deepens, winter birds flock in numbers to feeding stations.
- Mink forage along the frozen banks of brooks and streams.
- Bear cubs, remarkable for their diminutive size, are born.
- Pellets of bone and fur, under trees, indicate that owls have been hunting in the vicinity.
- Raccoons mate.
- The curious egg sacs of the bagworm hang starkly from the twigs of trees.
- Larvae of the cattail moth winter in frayed cattail heads.
- The dark blue fruit of the tupelo, in clusters of two or three, are conspicuous on the naked branches.
- Ground pine and ground cedar, in heavy ermine cloaks, brave the wintry elements to give color to the shadowy woodland floor.
- In the soft wood of rotting stumps may be found nymphs of the wood cockroach, the only outdoor roach that can winter in the north.
- In a lavish display of fairy candelabra, old tree stumps are decked with the branching coral-like cladonia, whose red tips are in rich contrast with their frosted green branches.
- Hairy woodpeckers leave the forest and appear in villages and orchards in search of food.
- Evening grosbeaks may make a surprise visit.
- Larvae of the pistol-case bearer hibernate in pistol-shaped cases attached to apple twigs.

- The white or brown papery disc-shaped egg sacs of the drassid spider may be found attached to the undersides of field stones in dry fields and along roadsides.
- Lapland longspurs may sometimes be seen in company with snow buntings, feeding on the seeds of the beach grass.
- The beech's upright gray bole casts purple shadows on the snow and its polished brown stems describe an exquisite tracery against the sky.
- Pupae of the cecropia moth may be found within large silken cocoons attached lengthwise to twigs of various trees.
- Half-grown larvae of the viceroy butterfly spend the winter in silken cases, suspended from the twigs of willow and poplar.
- On warm days, bluebottle and greenbottle flies emerge from their retreats in the corners of attics and the crevices of outbuildings — and usually starve as a result of appearing out of season.
- In rocky crevices of woodland hillsides, the common polypody, with its rich foliage, softens into beauty the rugged outlines of the barren landscape.
- Chickadees and nuthatches hunt for insects in the cracks and crevices of trees.
- The red buds and twigs of the red maple are seen against a background of snow.
- Spiderlings of the orange garden spider spend the winter within pear-shaped egg sacs, suspended from the withered stalks of thistles and other herbs.
- Carabid beetles, millipedes, and sow bugs may be found under stones and logs.



February

The ground is covered with a white shroud and trees and shrubs are hung with icy pendants that glisten brilliantly in the sunshine. February is here; and, as winter advances, my thoughts turn to the birds and mammals still abroad in field and forest, battling chill winds, swirling snows, and freezing temperatures, and gambling their lives against a diminishing food supply.