

The brewhouse, humble though its object may be, is not without its claim to admiration. It is open from the floor to the rafters of the roof, and that roof in its pitch, the craft of the woodwork, the dull polish of the old oak, has an interest far surpassing the dead staring level of flat lath and plaster. Noble workmanship in wood may be found, too, in some of the ancient barns; sometimes the beams are of black oak, in others of chestnut.

In these modern days men have lost the pleasures of the orchard; yet an old-fashioned orchard is the most delicious of places wherein to idle away the afternoon of a hazy autumn day, when the sun seems to shine with a soft slumberous warmth without glare, as if the rays came through an aerial spider's web spun across the sky, letting all the beauty, but not the heat, slip through its invisible meshes. There is a shadowy coolness in the recesses under the trees. On the damson trunks are yellowish crystalline knobs of gum which has exuded from the bark. Now and then a leaf rustles to the ground, and at longer intervals an apple falls with a decided thump. It is silent save for the gentle twittering of the swallows on the topmost branches—they are talking of their coming journey—and perhaps occasionally the distant echo of a shot where the lead has gone whistling among a covey. It is a place to dream in, bringing with you a chair to sit on—for it will be freer from insects than the garden seat—and a book. Put away all thought of time: often in striving to get the most value from our time it slips from us as the reality did from the dog that greedily grasped at the shadow: simply dream of what you will, with apples and plums, nuts and filberts within reach.

Dusky Blenheim oranges, with a gleam of gold under the rind; a warmer tint of yellow on the pippins. Here streaks of red, here a tawny hue. Yonder a load of great russets; near by heavy pears bending the strong branches; round black damsons; luscious egg-plums hanging their yellow ovals overhead; bullace, not yet ripe, but presently sweetly piquant. On the walnut trees bunches of round green balls—note those that show a dark spot or streak, and gently tap them with the tip of the tall slender pole placed there for the purpose. Down they come glancing from bough to bough, and, striking the hard turf, the thick green rind splits asunder, and the walnut itself rebounds upwards. Those who buy walnuts have no idea of the fine taste of the fruit thus gathered direct from the tree, when the kernel, though so curiously convoluted, slips its pale yellow skin easily and is so wondrously white. Surely it is an error to banish the orchard and the fruit garden from the pleasure-grounds of modern houses, strictly relegating them to the rear, as if something to be ashamed of.

Chapter Eleven.

The Home-Field—Hazel Corner—The Divining-Rod—Rabbits' Holes—The Corncrake—Ventriloquism of Birds—Hedge Fruit.

A wicket-gate affords a private entrance from the orchard into the home-field, opening on the meadow close to the great hedge, the favourite highway of the birds. Tracing this hedge away from the homestead, in somewhat more than two hundred yards it is joined by another hedge crossing the top of the field, thus forming a sheltered nook or angle, which has been alluded to as the haunt of squirrels. Here the highway hedge is almost all of hazel, though one large hawthorn tree stands on the 'shore' of the ditch. Hazel grows tall, straight, and is not so bushy as some underwood; the lesser boughs do not interlace or make convenient platforms on which to build nests, and birds do not use it much.

The ancient divination by the hazel wand, or, rather, the method of searching for subterranean springs, is not yet forgotten; some of the old folk believe in it still. I have seen it tried myself, half in joke, half in earnest. A slender rod is cut, and so trimmed as to have a small fork at one end; this fork is placed under the little finger in such a way that the rod itself comes over the back of the other fingers; it is then lightly balanced, and vibrates easily. The magician walks slowly over the ground selected, watching the tip of the wand; and should it bend downwards without volition on his part, it is a sign that water is concealed beneath the spot.

The nuts upon the bushes do not all ripen at the same time: one or two bushes are first, and offer ripe nuts before the rest have hardened sufficiently. The leaves on these also drop earlier, turning a light yellow. The size and even the shape of the nuts vary too, some being nearly round and others roughly resembling the almond. Their flavour when taken from the bush is sweet, juicy, 'nutty.' When they will 'slip udd' is the proper time to gather them—i.e. when the hood or outer green covering slips off at a touch, leaving the light-brown nut in the palm: it is a delicately shaded brown. Cut off just the tip of the nut—the pointed keystone of its Gothic arch—with a penknife; insert the blade ever so slightly, and a gentle turn splits the shell and shows two onyx-white hemispheres of kernel.

With a little care the tallest boughs may be pulled down uninjured; if dragged down rudely the bough will be 'sprung' where it joins the stole below, and will then wither and die. The plan is simply to apply force by degrees, pulling the main bough only so far forward as to enable the hand to reach air upper branch, seizing the upper branch, and by its aid reaching a still higher one, and gradually bending the central stem till it forms a bow. If done gradually and the bow not too acute, the tallest bush will spring

up when released without the least injury. With a crook to seize the bush as high up as possible—where it bends more easily—not a twig need be broken, and nutting may be enjoyed without doing the least damage.

Under a tall ash tree rising out of the hazel bushes, and near the great hawthorn on the edge or shore of the ditch, the grass grows rank and is of the deepest green. The dove that could be heard cooing from the orchard built her nest in the hawthorn, which, where it overhangs the grass like a canopy, is bare of boughs for six or seven feet up the gnarled stem. The cattle, who love to shelter under it from the heat of the sun, browsed on the young shoots, so that no branch could form; but on the side towards the ditch there are immense spiny thorns, long enough and strong enough to make a savage's arrow-head or awl. The doves do not seem nearly so numerous as the wood-pigeons (doves too, in strict language); they are much smaller, rather duller in colour—that is, when flying past—and are rarely seen more than two together. When the summer thunder is booming yonder over the hills, and the thin edge of the dark cloud showers its sweet refreshing rain, with the sunshine gleaming through on the hedge and grass here, between the rolling echoes the dove may be heard in the bush coo-cooing still more softly and lovingly to her mate.

Just in the very angle formed by the meeting hedges the ditch becomes almost a fosse, so broad and deep; the sandy banks have slipped, and the rabbits have excavated more, and over all the brambles have arched thickly with a background of brake fern. The flower of the bramble is very beautiful—a delicate pink bloom, succeeded by green berries, to ripen red, and later black, under the sun. A larger kind are found here and there—the children call them dew-berries or jew-berries indifferently. Some of the bramble leaves linger on a dull green all through the winter.

In the angle a narrow opening runs through between the two banks, which do not quite meet: it is so overgrown with bramble and fern, convolvulus and thorn, that unless the bushes were parted to look in no one would suspect the existence of this green tunnel, which on the other side opens on the ash copse, where a shallow furrow (dry) joins it. This tunnel is the favourite way and passage of the rabbits from the copse out into the tempting pasturage of the meadow; through it too, now and then, a fox creeps quietly. Rabbit-holes drill the bank everywhere, but one near this green bye-way is noticeable because of its immense size.

It must measure eighteen inches or nearly in diameter at the mouth; nor does it diminish abruptly, but continues almost as large a yard or more inside the bank. Spaniels will get right into such a 'bury,' till nothing but the tail can be seen, and, if permitted, stay there and dig and scratch frantically. They would sometimes, perhaps,

succeed in reaching the prey were it not for the roots of thorn bushes or trees which cross the holes here and there like bars; these they cannot scratch through, but will bite and tear with their teeth—coming out now and then to breathe and shake the sand from their muzzles, then back again with a whine of eager excitement, till presently, in sheer exhaustion, they lie down at the mouth of the cave and pant. This is not allowed if it is known; but spaniels now and then steal away privately, and so frequently make for a hole like this that when their absence is discovered it is the first place visited in search of them. The mingled patience and excitement, the vast labour they will undergo, the quantity of sand they will throw out, the whine—it is not a bark—expressing intense desire, prove how deep is the hunting instinct in the dog.

Even if the burrows be ferreted, in a few weeks this great hole shows signs of fresh inhabitants; and such a specially enlarged entrance may be found somewhere in most of the banks frequented by rabbits. Why do they make an aperture so many times larger than they can possibly require? It may be a kind of ancestral hall, the favourite cave of the first settlers here, clung to by their descendants. Within, perhaps three, or even more, tunnels branch off from it. So busy are they, and so occupied when excavating a fresh passage, that sometimes when waiting quietly on a bank you may see the miner at work. The sand pours out as he casts it behind him with his hinder paws; his back is turned, so that he does not notice anyone.

Along the banks evidence maybe found of attempts at boring holes, abandoned after a few inches of progress had been made: sometimes a root, or a stone perhaps, interferes; sometimes, and apparently more often, caprice seems the only cause why the tunnel was discontinued. The grass in this corner is sweeter to their taste than elsewhere: their runs are everywhere—crossing and winding about.

In the evening, as the shadows deepen and a hush falls upon the meads, they come out and chase and romp with each other. When a couple are at play one will rush ten or a dozen yards away and begin to nibble as if totally unconscious of the other. The second meanwhile nibbles too, but all the while stealthily moves forward, not direct, but sideways, towards the first, demurely feeding. Suddenly the second makes a spring; the first, who has been watching out of the corners of his eye all the time, is off like the wind. Or sometimes he will turn and face the other, and jump clean over, a foot high. Sometimes both leap up together in the exuberance of their mirth.

By the trunk of a mighty oak, growing out of the hedge that runs along the top of the field, the brambles and underwood are thinner, as is generally the case close under a tree; and it is easy to push through just there. On the other side, a huge root covered with deep green moss affords a pleasant seat, leaning back against the trunk. Upon

the right, close by, is the ash copse, with its border of thick fir trees; on the left oaks at intervals stand along the hedge; in front stretches the undulating surface of an immense pasture field called The Warren. Like a prairie it rolls gently away, dotted with hawthorn bushes, here and there a crab tree, and two rows of noble elms, in both of which the rooks are busy in spring. Beyond, the ground rises, and the small upland meadows are so thickly timbered as to look like distant glades of a forest; still farther are the downs.

Under this great oak in the stillness is a place to dream—in summer, looking upward into the vast expanse of green boughs, is an intricate architecture, an inimitable roof, whose lattice-windows are set with translucent *lapis lazuli*, for the deep blue of the sky seems to come down and rest upon it. The acorns are already there, as yet all cup, and little of the acorn proper showing; there is a tiny black speck on the top, and the young acorn faintly resembles some of the ancient cups with covers, the black speck being the knob by which the cover is lifted. After the first frosts, when the acorns are browned and come out of their cups from their own weight as they fall and strike the ground, the lads select the darkest or ripest, and eat one now and then; they half-roast them, too, like chestnuts.

In the early spring, when the night is bright and clear, it is a place to stand a moment and muse awhile. For the copse is dark and gloomy, the bare oaks are dark behind; the eye cannot see across the prairie, whose breadth is doubled by the night. But yonder lies a great grey sarsen boulder, like an uncouth beast of ancient days crouching in the hollow. Hush! there was a slight rustling in the grass there, as of a frightened thing; it was a startled hare hastening away. The brightest constellations of our latitude pour down their rays and influence on the birth of bud and leaf in spring; and at no other season is the sky so gorgeous with stars.

The grass in the meadow or home-field as it begins to grow tall in spring is soon visited by the corncrakes, who take up their residence there. In this district (though called the corncrake) these birds seem to frequent the mowing grass more than the arable fields, and they generally arrive about the time when it has grown sufficiently high and thick to hide their motions. This desire of concealment—to be out of sight—is apparently more strongly marked in them than in any other bird; yet they utter their loud call of ‘Crake, crake, crake!’ not unlike the turning of a wooden rattle, continuously though only at a short distance.

It is difficult to tell from what place the cry proceeds: at one moment it sounds almost close at hand, the next fifty yards off; then, after a brief silence, a long way to one side or the other. The attempt to mark the spot is in vain; you think you have it, and rush

there, but nothing is to be seen, and a minute afterwards 'Crake, crake!' comes behind you. For the first two or three such attempts the crake seems to move but a little way, dodging to and fro in a zigzag, so that his call is never very far off; but if repeated again and again he gets alarmed, there is a silence, and presently you hear him in a corner of the mead a hundred yards distant. Perhaps once, if you steal up very, very quietly, and suddenly dart forward, or if you have been waiting till he has come unawares close to you, you may possibly see the grass move as if something passed through it; but in a moment he is gone, without a glimpse of his body having been seen. His speed must be very great to slip like this from one side of the field to the other in so few seconds.

The fact that the call apparently issues from the grass in one place, and yet upon reaching it the bird is not to be found, has given rise to the belief that the crake is a ventriloquist. It may be so; but even without special powers of that kind, ventriloquial effects would, I think, be produced by the peculiar habits of the bird. When that which causes a sound is out of sight it must always be difficult to fix upon the exact spot whence the sound comes. When the sound is made now here, now yonder, as the bird travels swiftly—still out of sight—it must be still more difficult. The crake doubtless often cries from a furrow, which would act something like a trough, tending to draw the sound along it. Finally the incessant repetition of the same note, harsh and loud, confuses the ear.

Some say in like manner that the starling ventriloquises. He has, indeed, one peculiar long-drawn hollow whistle which goes echoing round the chimneypots and to and fro among the gables; but it never deceives you as to his position on the roof unless you are indoors and cannot see him. It is the same with the finches in the trees, when the foliage is thick. Their notes seem to come from this side among the branches, but on peering carefully up there is no bird visible; then it sounds higher up, and even in the next tree; all the while the finch is but just overhead, and the moment he moves he is seen. Other birds equally deceive the ear: the yellowhammer does sometimes, and the chattering brook-sparrow; so will the blackbird when singing—always provided that they are temporarily invisible.

When the crake remains a long time in one place, uttering the call continuously, the illusion disappears, and there is no more difficulty in approximately fixing its position than that of any other bird. One summer a crake chose a spot on the 'shore' of the ditch of the highway hedge, not forty yards from the orchard ha-ha. There was a thick growth of tall grass, clogweed, and other plants just there, and some of the bushes pushed out over the sward. The nest was placed close to the ditch (not in it), and the noise the crakes made was something astonishing. 'Crake, crake; crake!' resounded

the moment it was light—and it is light early at that season: ‘Crake, crake, crake!’ all the morning; the sound now and then, if the bird moved a few yards nearer, echoing back from some of the buildings. There was, or seemed to be, a slight cessation in the middle of the day, but towards evening it recommenced, and continued without cessation till quite dark. This lasted for some weeks: it chanced that the meadow was mown late, so that the birds were undisturbed. Why so apparently timid a bird should choose a spot near a dwelling is not easy to understand.

The crakes, however, when thus localised deceived no one by their supposed ventriloquial powers; therefore it seems clear that the deception is caused by their rapid changes of position. The mouse in like manner often gives an impression that it must be in one spot when it is really a yard away, the shrill squeak, as it were, left behind it. It is not easy sometimes to fix the position of the death-tick in woodwork. The home-field or meadow here is a favourite haunt of the crakes, for like all other birds they have their special places of resort. Another meadow, at some distance on the same farm, is equally favoured by them. This meadow adjoins that second line of bird-travel, following a brook previously alluded to. But as the crakes, though they will take refuge in a hedge, do not travel along it habitually, this circumstance may be accidental. Crakes, notwithstanding they run so swiftly, do not seem to move far when once they have arrived; they appear to restrict themselves to the field they have chosen, or, at the furthest, make an excursion into the next and return again, so that you may always know where to go to hear one.

The mowers cutting these meadows find the eggs—the nest being on the ground—and bring them to the farmstead, both as a curiosity and to be eaten, some thinking them equal to plover’s eggs. Though you may follow the sound ‘Crake, crake!’ in the grass for hours at a time, and sometimes get so near as to throw your walking-stick at a bunch of grass, you will never see the bird; and nothing, neither stick nor stone, will make it rise. Yet it is easy to shoot, as I found, in one particular way. The trick is to drive it into a hedge. Two persons and a spaniel well in hand walk towards the ‘Crake, crake!’ keeping some distance apart. The bird at first runs straight away; then, finding himself still pursued, tries to dodge back, but finds the line extended. He then takes refuge in silence, and endeavours to slip past unseen and unheard; but the spaniel’s power of scent baffles that. At last he makes for the hedge, when one person immediately goes on the other side, and the spaniel beats up it. The bird is now surrounded and cannot escape, and, as the dog comes close upon him, is compelled to rise and fly. As he rises his flight at first somewhat resembles the partridge’s, but it is slower and heavier, and he can be shot with the greatest ease. But if not fired at, after he has got well on

the wing the flight becomes much stronger, and it is evident that he is capable of a long voyage.

Sometimes, by patience and skilfully anticipating his zigzag motions in the grass, the crake may be driven to the hedge without a dog. He will then, after a short time, if still hunted, 'quat' in the thickest bunch of grass or weeds he can find in the ditch, and will stay till all but stepped on, when he can be knocked down with a walking-stick. After the grass is mown, the crakes leave the meadows and go to the arable fields, where the crops afford them shelter. This district seems a very favourite resort of these birds.

The mowing grass while standing does not appear to attract other birds much; but immediately the scythe has passed over they flock to the swathes from the hedges, and come, too, to the hay itself when quite dry. In hay there are many plants whose stems are hollow. Now, as soon as a stalk is dry, if there be any crevice at all, insects will creep in; so that these tiny tubes are frequently full of inhabitants, which probably attract the birds.

Sometimes a bird will perch for a moment on a haymaker's hat as he walks slowly down a lane with hedges each side; the fibres of hay have adhered to it, and the keen eyes above have detected some moving creature on them. Birds that are otherwise timid will remain on the footpath to the very last moment, almost till within reach, if they chance to be dissecting a choice morsel, some exquisite beetle or moth—pecking at it in eager haste and running what to them must seem a terrible risk for the sake of gratifying their taste.

The wood-pigeons are fond of acorns, and come for them to the oaks growing in an irregular row along the hedge at the top of the home-field. They are most voracious birds and literally cram their crops with this hard fruit. Squirrels and mice enjoy the nuts in Hazel Corner, and the thrushes and pigeons feed on the peggles which cover the great hawthorn bush there so thickly as to give it a reddish tint. There is a difference even in this fruit: on some bushes the peggles consist mainly of the internal stone, the edible coating being of the thinnest. On others the stone is embedded in, a thick mellow covering affording twice as much food. Like other products of the hedge, they are supposed to be improved by frost.

Farther down the highway hedge, by the gateway, a large elder bush, or rather tree, bears a profusion of berries. Blue-black sloes adhere to—they do not hang on—the blackthorn bushes: in places the boughs are loaded with them. Here and there crabs cling to the tough crab tree, whose bark has a dull gloss on it something like dark polished leather. Bunches of red berries shine on the woodbine: fruit growing in bunches usually depends, but these are often on the upper side of the stalk; and the

latter bloom shows by them—flower and fruit at the same time. The berry has a viscous feel.

Larger berries—some red, some green, on the same bunch—cluster on the vines of the bryony. The white bryony, whose leaf is not unlike that of the grape, has a magical reputation, and the cottage folk believe its root to be a powerful ingredient in love potions, and also poisonous. They identify it with the mandrake. If growing in or close to a churchyard its virtues are increased, for, though becoming fainter as they lengthen, the shadows of the old superstitions linger still. Red nightshade berries—not the deadly nightshade, but the ‘bitter-sweet’—hang sullenly among the bushes where this creeping plant has trailed over them. Here and there upon the bank wild gooseberry and currant bushes may be found, planted by birds carrying off ripe fruit from the garden. A wild gooseberry may sometimes be seen growing out of the decayed ‘touchwood’ on the top of a hollow withy-pollard. Wild apple trees, too, are not uncommon in the hedges.

The beautiful rich colour of the horse-chestnut, when quite ripe and fresh from its prickly green shell, can hardly be surpassed; underneath the tree the grass is strewn with the shells, where they have fallen and burst. Close to the trunk the grass is worn away by the restless trampling of horses, who love the shade its foliage gives in summer. The oak-apples which appear on the oaks in spring—generally near the trunk—fall off in the summer, and lie shrivelled on the ground not unlike rotten cork, or black as if burned. But the oak-galls show thick on some of the trees, light green, and round as a ball; they will remain on the branches after the leaves have fallen, turning brown and hard, and hanging there till the spring comes again.

One of the cottagers in the adjacent hamlet collects these brown balls and strings them upon wire, making flower-stands and ornamental baskets for sale. They seem to appear in numbers upon those oak bushes rather than trees which spring up when an oak has been cut down but the stump has not been grubbed up. These shoots at first often bear leaves of great size, many times larger than the ordinary oak leaf; some are really immense, measuring occasionally fourteen or fifteen inches in length. As the shoots grow into a bush the leaves diminish in size and become like those of the tree.

In the ditch the tall teasle lifts its prickly head. The large leaves of this plant grow in pairs, one on each side of the stem, and while the plant is young are connected in a curious manner by a green membrane, or continuation of the lower part of the leaf round the stem, so as to form a cup. The stalk rises in the centre of the cup, and of these vessels there are three or four above each other in storeys. When it rains, the drops, instead of falling off as from other leaves, run down these and are collected in

the cups, which thus form so many natural rain-gauges. If it is a large plant, the cup nearest the ground—the biggest—will hold as much as two or three wine-glasses. This water remains there for a considerable time, for several days after a shower, and is fatal to numbers of insects which climb up the stalk or alight on the leaves and fall in. While the grass and the earth of the bank are quite dry, therefore, the teasle often has a supply of water; and when it dries up, the drowned insects remain at the bottom like the dregs of a draught the plant has drained. Round the prickly dome-shaped head, as the summer advances, two circles of violet-hued flowers push out from cells defended by the spines, so that, seen protruding above the hedge, it resembles a tiara—a green circle at the bottom of the dome, and two circles of gems above.

Some of the grasses growing by the hedge are not to be handled carelessly, the edge of the long blade cutting like a lancet: the awn-like seeds of others, if they should chance to get into the mouth, as happens occasionally to the haymakers, work down towards the throat, the attempt to get rid of them causing a creeping motion the opposite way. This is owing to the awns all slanting in one direction.

On the sultry afternoons of the latter part of the summer the hedge is all but silent. Waiting in the gateway there is no sound for half an hour at a time, no call or merry song in the branches, nothing but the buzz of flies. The birds are quiet, or nearly so: they slip about so noiselessly that it is difficult to observe them, so that many perhaps migrate before it is suspected, and others stay on when thought to be gone. In the grass the grasshoppers make their hiss, and towards evening the yellowhammers utter a few notes; but while the corn is being reaped the meadows are all but still.

Chapter Twelve.

The Ash Copse—The Nightingale—Cloud of Starlings—Hedgehogs—Heron's Head—Moorhens—Among the Reeds.

A gap in the hedge by Hazel Corner leads through a fringe of hawthorn bushes into the ash copse. There is a gate at a little distance; but somehow it is always more pleasant to follow the bye-way of the gap, where two steps, one down into the ditch, or rather on to the heap of sand thrown out from a rabbit bury, and one up on the mound, carry you from the meadow—out of cultivation—into the pathless wood. The green sprays momentarily pushed aside close immediately behind, shutting out the vision, and with it the thought of civilisation. These boughs are the gates of another world. Under trees and leaves—it is so, too, sometimes even in an avenue—where the direct rays of

the sun do not penetrate, there is ever a subdued light; it is not shadow, but a light toned with green.

In spring the ground here is hidden by a verdant growth, out of which presently the anemone lifts its chaste flower. Then the wild hyacinths hang their blue bells so thickly that, glancing between the poles, it is hazy with colour; and in the evening, if the level beams of the red sun can reach them, here and there a streak of imperial purple plays upon the azure. Woodbine coils round the tall straight poles, and wild hops, whose bloom emit a pleasant smell if crushed in the fingers. On the upper and clearer branches of the hawthorn the nightingale sings—more sweetly, I think, in the freshness of the spring morning than at night. Resting quietly on an ash-stole, with the scent of flowers, and the odour of green buds and leaves, a ray of sunlight yonder lighting up the lichen and the moss on the oak trunk, a gentle air stirring in the branches above, giving glimpses of fleecy clouds sailing in the ether, there comes into the mind a feeling of intense joy in the simple fact of living.

The nightingale shows no timidity while all is still, but sings on the bough in full sight, hardly three yards away, so that you can see the throat swell as the notes are poured forth—now in intricate trills, now a low sweet call, then a liquid ‘jug-jug-jug!’ To me it sounds richer in the morning—sunlight, flowers, and the rustle of green leaves seem the natural accompaniment; and the distant chorus of other birds affords a contrast and relief—an orchestra filling up the pauses and supporting the solo singer.

Passing deeper into the wood, it is well to be a little careful while stepping across the narrow watercourse that winds between the stoles. Rushes grow thickly by the side, and the slender stream seems to ooze rather than run, trickling slowly down to the brook in the meadow. But the earth is treacherous on its banks—formed of decayed branches, leaves, and vegetable matter, hidden under a thin covering of aquatic grasses. Listen! there is a faint rustling and a slight movement of the grass: it is a snake gliding away to its hole, with yellow-marked head lifted above the ground over which his dull green length is trailing. Stepping well over the moist earth, and reaching the firmer ground, there the thistles grow great and tall, many up to the shoulder; it is a little more open here, the stoles having been cut only two years ago, and they draw the thistles up.

Sometimes the young ash, shooting up after being cut, takes fantastic shapes instead of rising straight. The branch loses its roundness and flattens out to a width of three or four inches, curling round at the top like the conventional scroll ornament. These natural scrolls are occasionally hung up in farmhouses as curiosities. The woodmen jocularly say that the branch grew in the night, and so could not see its way. In some

places (where the poles are full-grown) the upper branches rub against each other, causing a weird creaking in a gale. The trees as the wind rises find their voices, and the wood is full of strange tongues. From each green thing touched by its fingers the breeze draws a different note: the bennets on the hillside go 'sish, sish;' the oak in the copse roars and groans; in the firs there is a deep sighing; the aspen rustles. In winter the bare branches sing a shrill 'sir-r-r.'

The elm, with its rough leaf, does not grow in the copse: it is a tree that prefers to stand clear on two sides at least. Oak and beech are here; on their lower branches a few brown leaves will linger all through the winter. Where a huge bough has been sawn from a crooked ill-grown oak a yellow bloated fungus has spread itself, and under it if you lift it with a stick, the woodlice are crowded in the rotting stump. The beech boughs seem to glide about, round and smooth, snake-like in their easy curves. The bark of the aspen, and of the large willow poles, looks as if cut with the point of a knife, the cut having widened and healed with a rough scar. On the trunk of the silver birch sometimes the outer bark peels and rolls up of itself. Seen from a distance, the leaves of this tree twinkle as the breeze bends the graceful hanging spray.

The pheasants, that wander away from the preserves and covers up under the hills far down in the meadows as the acorns ripen, roost at night here in the copse; and should a storm arise, after every flash of lightning gleaming over the downs the cocks among them crow. So, too, in the daytime, after every distant mutter of thunder the pheasant cocks crow in the preserves, and some declare they can see the flash, even though invisible to human eyes, at noonday.

Clustering cones hang from the firs, fringing the copse on one side—first green, and then a pale buff, and falling at last hard and brown to strew the earth beneath. In the thick foliage of this belt of firs the starlings love to roost. If you should be passing along any road—east, north, west, or south—a mile or two distant, as the sun is sinking and evening approaching, suddenly there will come a rushing sound in the air overhead: it is a flock of starlings flying in their determined manner straight for the distant copse. From every direction these flocks converge upon it: some large, some composed only of a dozen birds, but all with the same intent. If the country chances to be open, the hedges low, and the spectator on a rise so as to see over some distance, he may observe several such flights at the same time. Rooks, in returning to roost fly in long streams, starlings in numerous separate divisions. This is especially noticeable in summer, when the divisions are composed of fewer birds: in winter the starlings congregate in larger bodies.

It would appear that after the young birds are able to fly they flock together in parties by themselves, the old birds clubbing together also, but all meeting at night. The parties of young birds are easily distinguished by their lighter colour. This may not be an invariable rule (for the birds to range themselves according to age), but it is the case frequently. Viewed from a spot three or four fields away, the copse in the evening seems to be overhung by a long dark cloud like a bar of mist, while the sky is clear and no dew has yet risen. The resemblance to a cloud is so perfect that anyone—not thinking of such things—may for the time be deceived, and wonder why a cloud should descend and rest over that particular spot. Suddenly, the two ends of the extended black bar contract and the middle swoops down in the shape of an inverted cone, much resembling a waterspout, and in a few seconds the cloud pours itself into the trees. Another minute, and a black streak shoots upwards, spreads like smoke, parts in two, and wheels round back into the firs again.

On approaching it this apparent cloud is found to consist of thousands of starlings, the noise of whose calling to each other is indescribable—the country folk call it a ‘charm,’ meaning a noise made up of innumerable lesser sounds, each interfering with the other. The vastness of these flocks is hardly credible until seen; in winter the bare trees on which they alight become suddenly quite black. Once or twice in the summer starlings may be observed hawking to and fro high in the air, as if imitating the swallows in an awkward manner. Probably some favourite insect is then on the wing, and they resort to this unwonted method to capture it.

Beyond the fir trees the copse runs up into a corner, where hawthorn bushes, briar, and bramble succeed to the ash-stoles, and are in turn bordered by some width of furze and brake fern. When this fern is young and fresh the sunshine glistens on its glossy green fronds, but on coming nearer the sheen disappears. On a very hot sultry day towards the end of summer there is occasionally a peculiar snapping sound to be heard in the furze, as if some part of the plant, perhaps the seed, were bursting. The shocks of wheat, too, will crackle in the morning sun. This corner, well sheltered by furze and brake, is one of ‘sly Reynard’s’ favourite haunts. The stems of the furze, when they grow straight, are occasionally cut for walking-sticks. Wood-pigeons visit the copse frequently—in the spring there are several nests—and towards evening their hollow notes are repeated at intervals. Though without the slightest pretensions to a song, there is something soothing in their call, pleasantly suggestive of woodland glades and deep shady dells.

Just before the shooting season opens there is a remarkable absence of song from hedge and tree: even the chirp of the house-sparrow is seldom heard on the roof, where only recently it was loud and continuous. Most of the sparrows have, in fact,

left the houses in flocks and resorted to the cornfields after the grain. In this silent season the robin, the wood-pigeon, and the greenfinch, seem the only birds whose notes are at all common: the pigeons call in the evening as they come to the copse, the greenfinches in a hushed kind of way talk to each other in the hedge, and the robin plaintively utters a few notes on the tree. It is not absolute silence indeed; but the difference is very noticeable. Through the ash-poles on one side of the copse distant glimpses may be obtained of gleaming water, where a creek of the shallow lake runs in towards it.

Bordering the furze a thick hawthorn hedge—a double mound—extends, so wide as to be itself almost another copse. In the ‘rowetty’ grass on the bank or in the hollow places, under fallen leaves and trailing ivy, the hedgehog hides during the day, so completely concealed that while the sun shines it is extremely difficult to find one without a dog.

A spaniel racing down the mound will pounce on the spot and scratch the hedgehog out in a moment; then, missing the dog, you presently hear a whining kind of bark—half rage, half pain—and know immediately what he is doing. He is trying to unroll the hedgehog, who, so soon as he felt the approach of the enemy, curled himself into a ball, with the sharp spines sticking out everywhere. The spaniel, snapping at the animal, runs these quills deep into his jowl; he draws back, snaps again, shakes his head, and then tries a third time, with bloodspots round his mouth. Every repulse embitters him—his semi-whine expresses intense annoyance, and if left alone there he would stay till covered with blood.

But the older dogs sometimes learn the trick: they then roll the hedgehog over with a paw, touching it gently, so as not to run the spines in, till the depression comes uppermost where the hedgehog has tucked his head inwards. This is the only vulnerable place, and with one desperate bite the dog thrusts his teeth in there, seizes the nose, and then has the hedgehog in his power. The young of the hedgehog are amusing little things, and try to roll themselves up in precisely the same manner; but they cannot close the aperture where they tuck their heads in so completely. Though invisible during the sunshine, hiding so carefully as to be rarely found, when the dew begins to gather thickly on the grass and the shades deepen they issue forth, and if you remain quite still show no fear at all. While waiting in a dry ditch I have often had a hedgehog come rustling slightly along the bottom till he reached my boot; then he would go up the ‘shore’ of the ditch out among the grass hunting for beetles and the creeping things which he likes most.

In some places they are numerous; one or two other meadows on the farm beside the home-field are favourite haunts of theirs, and five or six may be found out feeding within a short distance. When all is still they move rapidly through the grass—quite a run; much quicker than they appear capable of moving. The plough lads, if they find one, carry it to a pond, knowing that nothing but water will make it unroll voluntarily—no knocks or kicks; but the moment it touches the water it uncoils. Now and then a labourer will cook a hedgehog and eat it; some of them will eat a full-grown rook at any time they chance to shoot it, notwithstanding the bitter flavour of the bird, only taking out a part of the back. Those who have had some association with the gipsies or semi-gipsies seem most addicted to this kind of food.

In the opposite direction to the ash copse, and about half a mile north of Wick farmhouse, there rises above the oak and ash trees what looks like the topmast and yard of a ship lying at anchor or in dock, the hull hidden by the branches. It is the top of an immensely tall and gaunt fir tree, whose thin and perhaps dying boughs project almost at right angles. This landmark, visible over the level meadows for a considerable distance, stands in that little enclosed meadow which has once before been mentioned as one of the favourite resorts of birds and wild animals.

From the ash copse the travelling parties come down the highway hedge to the orchard: then, crossing the orchard and road, they enter another thick hedge, which continues in the same general direction; and finally, following it, arrive at this small green mead walled in by trees and mounds so broad as to resemble elongated copses. The mead itself may perhaps be two acres in extent, but it does not appear so much: the part visible on first glancing over the gateway can hardly exceed an acre. The rest is formed of nooks—deep indentations, so to say—not more than six or eight yards wide at the entrance, and running up to a point. Of these there are four or five—recesses in the massive walls of green.

These corners are caused by the mound following the curiously winding course of a brook which flows just without on the left side; and without on the right side, runs a second brook, whose direction is much straighter and current slower. These two meet at the top of the mead, and then, forming a junction, make a deep, swift stream, flowing beside a series of water-meadows—broad, level, and open, like a plain—which are irrigated from it. The mounds in the angle where the brooks join enclose a large space planted with osiers, and inside the hedges all round the mead there is a wide, deep ditch, always full of slowly moving water: so that the field is really surrounded by a double moat; and in one corner, in addition, there is a pond hidden by maple thickets from within, and intended for the use of cattle in the adjoining field. The nearest house is several meadows distant, and no footpath passes near, so that

the spot is peculiarly quiet. These mounds, hedges, osier-bed, and brooks, occupy an area nearly or quite equal to the space where cattle can feed.

Upon the fir tree a heron perches frequently in the daytime, because from that great elevation he can command an extensive view and feels secure against attack. Whenever he visits the water-meadows, sailing thither from the shallow lake (one of whose creeks approaches the ash copse), he almost always rests here before descending to the field to take a good look round. The heron is a most suspicious bird: when he alights in the water-meadows here he stalks about in the very middle of the great field, far out of reach of the gun. If ever he ventures to the brook, it is not till after a careful survey from the fir tree, his tower of observation; and, when in the brook, his long neck is every now and then extended, that he may gaze above the banks.

By the gateway, reached by crossing a rude bridge for the waggons, wild hops festoon the thickets. Behind the maple bushes in the corner the water of the pond, overhung with willow, is dark—almost black in the depth of shadow. Out of it a narrow and swift current runs into that slow straight brook which bounds the right side of the meadow. Here in the long grass and rushes growing luxuriantly between the underwood lurk the moorhens, building their nests on bunches of rushes against the bank and almost level with the water. Though but barely hatched, and chips of shell clinging to their backs, the tiny fledglings swim at once if alarmed. When a little older they creep about on the miniature terraces formed along the banks by the constant running to and fro of water-rats, or stand on a broken branch bent down by its own weight into the water, yet still attached to the stem, puffing up their dark feathers like a black ball.

If all be quiet, the moorhens come out now and then into the meadow; and then, as they stand upright out of the water, the peculiar way in which their tails, white marked, are turned upwards is visible. The bill is of a fine colour—almost the ‘orange-tawny’ of the blackbird, set in thick red coral at its base. Under the shallow water at the mouth of the pond the marks of their feet on the mud may be traced: they run swiftly, and depend upon that speed and the skilful tricks they practise in diving—turning back and dodging under water like a hare in the fields—to escape from pursuit, rather than on their wings. Through the thick green flags they creep, and into the holes the water-rats have made, or behind and under the natural cavities in the stoles upon the bank. They beat the water with their wings when they rise, showering the spray on either side, for a short distance, and then, ascending on an inclined plane, fly heavily, but with some strength.

At night is their time of journeying, when they come down from the lake or return to it, uttering a weird cry in the darkened atmosphere. By day, as they swim to and fro in the

flags and through the duckweed, shaded from the hot sun under willow and aspen, they call to each other, not unpleasantly, a note something like 'croog,' with a twirl of the 'r.' In summer they do not move far from the place they have chosen to breed in: in the frosts of winter they work their way up the brooks, or fly at night, but usually come back to the old spot. The dabchick, a slender bird, haunts the pond here too, diving even more quickly than the moorhen.

Nut-tree bushes grow along the bank of the brook on this side—the nuts are a smaller sort than usual; and beside the wet ditch within the mound and on the 'shore,' wherever the scythe has not reached, the meadow-sweet rears its pale flowers. At evening, if it be sultry, and on some days, especially before a thunderstorm, the whole mead is full of the fragrance of this plant, which lines the inside ditch almost everywhere. So heavy and powerful is its odour that the still motionless air between the thick hedges becomes oppressive, and it is a relief to issue forth into the open fields away from the perfume and the brooding heat. But by day it is pleasant to linger in the shadow and inhale its sweetness—if you are not nervous of snakes, for there is one here and there in the grass gliding away at the jar of the earth under your footstep. Warmth and moisture favour their increase, as on a larger scale in tropic lands; and parts of the mead are often under water when a freshet comes down the brooks so choked with flags that they cannot carry it away quickly.

The osier-bed in the angle where the brooks join is on slightly higher ground, for although the withy likes water at its roots it should not stand in it. Springing across the ditch, and entering among the tall slender wands, which, though they look so thick part aside easily, you may find on the mound behind the butt of an oak sawn just above the ground; and there, in the shade of the reeds, and with a cool breeze now and again coming along the course of the stream, it is delicious in the heat of summer to repose and listen to the murmur of the water.

The moorhens come down the current slowly, searching about among the flags; the reed warblers are busy in the hedge; at the mouth of his hole sits a water-rat rubbing his face between his paws; across the stream comes his mate, swimming slowly with one end of a long green sedge in her mouth, and the rest towed behind on the surface. They are the beavers of our streams—amusing, intelligent little creatures, utterly different in habits from the rat of the drain. Move but a hand, and instantly they fall rather than dive into the water, making a sound like 'thock' as they strike it; and then they run along the bottom, or seem to do so, as swiftly as on dry land. But in a few minutes out they come again, being at the same time extremely timid and as quickly reassured; so that if you remain perfectly still they will approach within a yard.

Where the two brooks meet a hollow willow tree hangs over the brown pool—brown with suspended sand and dead leaves slowly rotating under the surface—where the swirl of the meeting currents, one swift and shallow the other deeper and stronger, has scooped out a basin. A waving line upon the surface marks where the two streams shoulder each other and strive for mastery, and its curve, yielding now to this side now to that, responds to their varying volume and weight. While the under-currents sweep ever slowly round, whirling leaf and dead black soddened twigs over the hollow, the upper streams are forced together unwillingly by the narrowing shores, and throw themselves with a bubbling rush onwards. Through the brown water, from under the stooping willow whose age bows it feebly, there shine now and again silvery streaks deep down as the roach play to and fro. There, too, come the perch; they are waiting for the insects falling off the willows and the bushes, and for the food brought down by the streams.

‘Hush!’ it is the rustle of the reeds, their heads are swaying—a reddish brown now, later on in the year a delicate feathery white. Seen from beneath, their slender tips, as they gracefully sweep to and fro, seem to trace designs upon the blue dome of the sky. A whispering in the reeds and tall grasses: a faint murmuring of the waters: yonder, across the broad water-meadow, a yellow haze hiding the elms.

In the nooks and corners on the left side of the mead the hemlock rears its sickly-looking stem; the mound is broad and high, and thickly covered with grasses, for the most part dead and dry. These form a warm cover for the fox: there is usually one hiding somewhere here, the mead being so quiet. Where the ground is often flooded watercress has spread out into the grass, growing so profusely that now the water is low it might be mown by the scythe. And everywhere in their season, the beautiful forget-me-nots nestle on the shores among the flags, where the water, running slower at the edge, lingers to kiss their feet.

Once, some five-and-twenty years ago, a sportsman startled a great bird out of the spot where the streams join, and shot it, thinking it was a heron. But seeing that it was no common heron, he had it examined, and it was found to be a bittern, and as such was carefully preserved. It was the last visit of bitterns to the place; even then they were so rare as not to be recognised: now the progress of agriculture has entirely banished them.

Chapter Thirteen.

The Warren—Rabbit-Burrows—Ferrets—The Quarry—The Forest—Squirrels—Deer—Dying Rabbit—A Hawk.

Under the trunks of the great trees the hedges are usually thinner, and need repairing frequently; and so it happens that at the top of the home-field, besides the gap leading into the ash copse, there is another some distance away beneath a mighty oak. By climbing up the mound, and pushing through the brake fern which grows thickly between the bushes, entrance is speedily gained to the wide rolling stretch of open pasture called the Warren. The contrast with the small enclosed meadow just left is very striking. A fresh breeze comes up from the lake, which, though not seen in this particular spot, borders the plain-like field in one part.

The ground is not level; it undulates, now sinking into wide hollows, now rising in rounded ridges, and the turf (not mown but grazed) is elastic under the foot, almost like that of the downs in the distance. This rolling surface increases the sense of largeness—of width—because it is seldom possible to see the whole of the field at once. In the hollows the ridges conceal its real extent; on the ridges a corresponding rise yonder suggests another valley. The two rows of tall elms—some hundreds of yards apart—the scattered hawthorn bushes and solitary trees, groups of cattle in the shade, and sheep grazing by the far-away hedge, give the aspect of a wilder park, the more pleasant because of its wildness.

Near about the centre, where the land is most level, an unexpected slope goes down into a cuplike depression. This green crater may perhaps have been formed by digging for sand—so long ago that the turf has since grown over smoothly. Standing at the bottom the sides conceal all but the sky overhead. Some few dead leaves of last year, not yet decayed though bleached and brittle, lie here at rest from the winds that swept them over the plain. Silky balls of thistledown come irresolutely rolling over the edge, now this way now that: some rise and float across, some follow the surface and cling awhile to the bennets in the hollow. Pale blue harebells, drooping from their slender stems here and there, meditate with bowed heads, as if full of tender recollections.

Now, on hands and knees (the turf is dry and soft), creep up one side of the bowl-like hollow, where, the thistles make a parapet on the edge, and from behind it look out upon the ground all broken up into low humps, some covered with nettles, others plainly heaps of sand. It is the site of an immense rabbit-burrow, the relic of an old warren which once occupied half the field. The nettle-covered heaps mark old excavations; where the sand shows, there the miners have been recently at work. At the sound of approaching footsteps those inhabitants that had been abroad hastily rushed into their caves, but now (after waiting awhile, and forgetting that the adjacent

hollow might hide the enemy) a dozen or more have come forth within easy gunshot. Though a few like this are always looking in and out all through the day, it is not till the approach of evening that they come out in any number.

This is a favourite spot from whence to get a shot at them, but the aim must be deadly, or the rabbit will escape though never so severely wounded. The holes are so numerous that he has never more than a yard to scramble, and as he goes down into the earth his own weight carries him on. If he can but live ten seconds after the lead strikes him, he will generally escape you. Watching patiently (without firing), after the twilight has deepened into night presently you are aware of a longer, larger creature than a rabbit stealing out, seeming to travel close to the earth: it is a badger. There are almost always a couple somewhere about the warren. Their residence is easily discovered because of the huge heap of sand thrown out from the rabbit-hole they have chosen; and it is this ease of discovery that has caused the diminution of their numbers by shot or spade.

The ground sounds hollow underneath the foot—perhaps half an acre is literally bored away under the surface; and you have to thread your way in and out a labyrinth of holes, the earth about some of them perceptibly yielding to your weight. There must be waggon-loads of the sand that has been thrown out. Beyond this central populous quarter suburbs of burrows extend in several directions, and there are detached settlements fifty and a hundred yards away. In ferreting this place the greatest care has to be taken that the ferret is lined with a long string, or so fed that he will not lie in; otherwise, if he is not picked up the moment he appears at the mouth of the hole, he will become so excited at the number of rabbits, and so thirsty for blood, that he will refuse to come forth.

To dig for him is hopeless in that catacomb of tunnels; there is nothing for it but to send a man day after day to watch, and if possible to seize him while passing along the upper ground from one bury to another. In time thirst will drive him to wander; there is no water near this dry, sandy, and rather elevated spot, and blood causes great thirst. Then he will roam across the open, and by-and-by reach the hedges, where in the ditch some water is sure to be found in winter, when ferreting is carried on. So that, if a ferret has been lost some time, it is better to look for him round the adjacent hedges than in the warren.

Long after leaving the bury it is as well to look to your footsteps, because of solitary rabbit-holes hidden by the grass growing up round and even over them. If the foot sinks unexpectedly into one of these, a sprained ankle or even a broken bone may result. Most holes have sand round the mouth, and may therefore be seen even in the

dusk; but there are others also used which have no sand at the mouth, the grass growing at the very edge. Those that have sand have been excavated from without, from above; those that have not, have been opened from below. The rabbit has pushed his way up from an old bury, so that the sand he dug fell down behind him into the larger bole.

The same thing may be seen in banks, though then the holes worked from within are not so much concealed by grass. These holes are always very much smaller than the others, some so small that one might doubt how a rabbit could force his body through them. The reason why the other tunnels appear so much larger is because the rabbit has no means of 'shoring' up his excavation with planks and timbers, and no 'cage' with which to haul up the sand he has moved; so that he must make the mouth wider than is required for the passage of his body, in order to get the stuff out behind him. He can really creep through a much smaller aperture. At night especially, when walking near a bury situate in the open field, beware of putting your foot into one of these holes, which will cause an awkward fall if nothing worse. Some of the older holes, now almost deserted, are, too, so hidden by nettles and coarse grass as to be equally dangerous.

The hereditary attachment of wild animals for certain places is very noticeable at the warren. Though annually ferreted, shot at six months out of the twelve, and trapped—though weasels and foxes prey on the inhabitants—still they cling to the spot. They may be decimated by the end of January, but by September the burrows are as full as ever. Weasels and stoats of course come frequently, bent on murder, but often meet their own doom through over-greediness; for some one generally comes along with a gun once during the day, and if there be any commotion among the rabbits, waits till the weasel or stoat appears at the mouth of a hole, and sends a charge of shot at him. These animals get caught, too, in the gins, and altogether would do better to stay in the hedgerows.

The grass of this great pasture has a different appearance to that in the meadows which are mown for hay. It is closer and less uniformly green, because of the innumerable dead fibres. There are places which look almost white from the bennets which the cattle leave standing to die after the seeds have fallen, and shrink as their sap dries up. Somewhat earlier in the summer, bright yellow strips and patches, like squares of praying-carpet thrown down upon the sward, dotted the slopes: it was the bird's-foot lotus growing so thickly as to overpower the grass. Mushrooms nestle here and there: those that grow in the open, far from hedge and tree, are small, and the gills of a more delicate salmon colour. Under the elms yonder a much larger variety may be found, which, though edible, are coarser.

Where a part of the lake comes up to the field is a long-disused quarry, whose precipices face the water like a cliff. Thin grasses have grown over the excavations below: the thistles and nettles have covered the heaps of rubbish thrown aside. The steep inaccessible walls of hardened sand are green with minute vegetation. Along the edge above runs a shallow red-brown band—it is the soil which nourishes the roots of the grasses of the field: beneath it comes small detached stones in sand; these fall out, loosened by the weather, and roll down the precipice. Then, still deeper, the sand hardens almost into stone, and finally comes the stone itself; but before the workmen could get out more than a thin layer they reached the level of the water in the lake, which came in on them, slowly forming pools.

These are now bordered by aquatic grasses, and from their depths every now and then the newts come up to the surface. In the sand precipices are small round holes worked out by the martins—there must be scores of them. Where narrow terraces afford access to four-footed creatures, the rabbits, too, have dug out larger caves; some of them rise upwards, and open on the field above, several yards from the edge of the cliff. The sheep sometimes climb up by these ledges; they are much more active than they appear to be, and give the impression that in their native state they must have rivalled the goats. The lambs play about in dangerous-looking places without injury: the only risk seems to be of their coming unexpectedly on the cliff from above; if they begin from below they are safe. A wood-pigeon may frequently be found in the quarry—sometimes in the pits, sometimes on the ledges high up—and the goldfinches visit it for the abundant thistledown.

Between the excavated hollow and the lake there is but a narrow bank of stone and sand overgrown with sward; and, reclining there, the eye travels over the broad expanse of water, almost level with it, as one might look along a gun-barrel. Yonder the roan cattle are in the water up to their knees; the light air ripples the surface, and the sunshine playing on the wavelets glistens so brilliantly that the eye can scarcely bear it; and the cattle ponder dreamily, standing in a flood of liquid gold.

A path running from Wick across the fields to the distant downs leads to the forest. It would be quite possible to pass by the edge without knowing that it was so near, for a few scattered trees on the hillside would hardly attract attention. Nothing marks where the trees cease: thin, wide apart, and irregularly placed, because planted by nature, they look but a group on the down. There is indeed a boundary, but it is at a distance and concealed: it is the trout stream in the hollow far below, winding along the narrow valley, and hidden by osier-beds and willow pollards.

Ascending the slope of the down towards the trees, the brown-tinted grass feels slippery under foot: this wiry grass always does feel so as autumn approaches. A succession of detached hawthorn bushes—like a hedge with great gaps—grow in a line up the rising ground. The dying vines of the bryony trail over them—one is showing its pale greenish white flowers, while the rest bear heavy bunches of berries. A last convolvulus, too, has a single pink-streaked bell, though the bough to which it holds is already partly bare of leaves. The touch of autumn is capricious, and passes over many trees to fix on one which stands out glowing with colour, while on the rest a dull green lingers. Near the summit a few bunches of the brake fern rise out of the grass; then the foremost trees are reached, beeches as yet but faintly tinted here and there. Their smooth irregularly round trunks are of no great height—both fern and trees at the edge seem stunted, perhaps because they have to bear the brunt and break the force of the western gales sweeping over the hills.

For the first two hundred yards the travelling is easy because of this very scantiness of the fern and underwood; but then there seems to rise up a thick wall of vegetation. To push a way through the ever-thickening bracken becomes more and more laborious; there is scarce a choice but to follow a winding narrow path, green with grass and moss and strewn with leaves, in and out and round the impenetrable thickets. Whither it leads—if, indeed anywhere—there is no sign. The precise sense of direction is quickly lost, and then glancing round and finding nothing but fern and bush and tree on every hand, it dawns upon the mind that this is really a forest—not a wood, where a few minutes either way will give you a glimpse of the outer light through the ash-poles.

Other narrow paths—if they can be called paths which show no trace of human usage—branch off from the original one, till by-and-by it becomes impossible to recognise one from the other. The first has been lost indeed long ago, without its having been observed: for the bracken is now as high as the shoulders, and the eye cannot penetrate many yards on either side. Under a huge oak at last there is an open space, circular, and corresponding with the outer circumference of its branches: carpeted with dark-green grass and darker moss, thickly strewn with brown leaves and acorns that have dropped from their cups. A wall of fern encloses it: the path loses itself in the grass because it is itself green.

Several such paths debouch here—which is the right one to follow? It is pure chance. On again, with more tall bracken, thorn thickets, and maple bushes, and noting now the strange absence of living things. Not a bird rises startled from the boughs, not a rabbit crosses the way; for in the forest, as in the fields, there are places haunted and places deserted, save by occasional passing visitors. Suddenly the bracken ceases,

and the paths disappear under a thick grove of beeches, whose dead leaves and beechmast seem to have smothered vegetation.

Insensibly the low ground rises again, the brake and bushes and underwood reappear, but the trees grow thinner and farther apart; they are mainly oaks, which like to stand separate in their grandeur. There is one dead oak all alone in the midst of the underwood, with a wide space around it. A vast grey trunk, split and riven and hollow, with a single pointed branch rising high above it, dead, too, and *grey*: not a living twig, not so much as a brown leaf, gives evidence of lingering life. The oak is dead; but even in his death he rules, and the open space around him shows how he once overshadowed and prevented the growth of meaner trees. More oaks, then a broad belt of beeches, and out suddenly into an opening.

It is but a stone's-throw across—a level mead walled in with tall trees, whose leaves in myriads lie on the brown-tinted grass. One great thicket only grows in the midst of it. The nights are chilly here, as elsewhere; but in the day, the winds being kept off by the trees and underwood, it becomes quite summer-like, and the leaves turn to their most brilliant hues. The stems of the bracken are yellow; the fronds vary from pale green and gold, commingled, to a reddish bronze. The hawthorn leaves are light yellow, some touched with red, others almost black. Maple bushes glow with gold. Here the beeches show great spots of orange; yonder the same tree, from the highest branch to the lowest, has become a rich brown. Brown too, and buff, are the oaks; but the tints so shade into each other that it is hard to separate and name them.

It is not long before sounds and movements indicate that the forest around is instinct with life. Often it happens that more may be observed while stationary in one spot than while traversing a mile or two; for many animals crouch or remain perfectly still, and consequently invisible, when they hear a footstep. There is a slight tapping sound—it seems quite near, but it is really some little way off; and presently a woodpecker crosses the open, flying with a wave-like motion, now dipping and now rising. Soon afterwards a second passes: there are numbers of them scattered about the forest. A clattering noise comes from the trees on the left—it is a wood-pigeon changing his perch; he has settled again, for now his hollow note is heard, and he always calls while perching. A loud screeching and chattering deeper in the forest tells that the restless jays are there. A missel-thrush comes and perches on a branch right overhead, uttering his harsh note, something like turning a small rattle. But he stays a moment only: he is one of the most suspicious of birds, and has instantly observed that there is some one near. A magpie crosses the mead and disappears.

Something moving yonder in the grass catches the eye; it is a reddish bushy tail, apparently without a body, yet held nearly upright, and moving hither and thither in a quick, nervous way. Suddenly down it goes, and the squirrel raises himself on his haunches to listen to some suspicious sound, holding his forefeet something like a kangaroo. Then he recommences searching and the tail rises, alone visible above the tall grass. Now he bounds, and as his body passes through the air the tail extends behind and droops so that he seems to form an arch. After working along ten or fifteen yards in one direction, he stops, turns sharp round, and comes all the way back again. Some distance farther, under the trees, two more are frisking about, and a rabbit has come to nibble the grass in the open.

Looking across to the other side, where the fern recommences, surely there was a movement as if a branch was shaken; and a branch that, on second thought, is in such a position that it cannot be connected with any tree. Again, and then the head and neck of a stag are lifted above the fern. He is attacking a tree—rubbing his antlers against a low branch, much as if he were fighting it. He is not a hundred yards off; it would be easy to get nearer, surely, by stalking him carefully, gliding from tree trunk to tree trunk under the beeches.

At the first step the squirrel darts to the nearest beech; and although it seems to have no boughs or projections low down, he is up it in a moment, going round the trunk in a spiral. A startling clatter resounds overhead: it is a wood-pigeon that had come quietly and settled on a tree close by, without being noticed, and now rises in great alarm. But it is a sound to which the deer are so accustomed that they take no notice. There is little underwood here beneath the beeches, but the beechmast lies thick, and there are dead branches, which if stepped on will crack loudly.

A weasel rushes past almost under foot; he has been following his prey so intently as not to have observed where he was going. He utters a strange startled 'yap,' or something between that and the noise usually made by the lips to encourage a horse, and makes all speed into the fern. These are the happy hunting-grounds of the weasels.

During spring and summer—so long as the grass, clover, and corn crops are standing, and are the cover in which partridges and other birds have their nests—the weasels and stoats haunt the fields, being safe from observation (while in the crops) and certain of finding a dinner. Then, if you watch by a gap in the hedge, or look through a gateway into the cornfield, you may be almost certain of seeing one at least; in a morning's walk in summer I have often seen two or three weasels in this way. The young rabbits and leverets are of course their prey also. But after the corn is cut you

may wait and watch a whole day in the fields and not see a weasel. They have gone to the thick mounds, the covers, woods, and forests, and therein will hunt the winter through.

The stag is still feeding peacefully; he is now scarce fifty yards away, when he catches sight and is off. His body as he bounds seems to keep just above the level of the fern. It is natural to follow him, though of course in vain; the mead is left behind, and once more there is a wall of fern on either side of the path. After a while a broad green drive opens, and is much more easy to walk along. But where does it go? for presently it divides into two, and then the fork pursued again branches. Hush! what is that clattering? It sounds in several directions, but nothing is visible.

Then a sharp turn of the drive opens on a long narrow grassy valley, which is crowded with deer. Parties of thirty or forty are grazing; and yonder, farther away by themselves, there must be nearly a hundred fawns. Standing behind a tree, it is a pleasant sight to watch them; but after a while comes back the thought, dismissed contemptuously long since—the afternoon is advancing, and is it possible to be lost? The truth is we are lost for the time.

It is impossible to retrace one's footsteps, the paths and drives are so intricate, and cross and branch so frequently. There are no landmarks. Perhaps from the rising ground across the valley a view may be obtained. On emerging into the open, the whole herd of deer and fawns move slowly into the forest and disappear. From the hill there is nothing visible but trees. If a tree be climbed to get a look-out, there is still nothing but trees. Following a green drive as a forlorn hope, there comes again the rattling as of clubs and spears, and strange grunting sounds. It is the bucks fighting; and they are not altogether safe to approach. But time is going on; unless we can soon discover the way, we may have to remain till the tawny wood-owls flit round the trees.

There comes the tinkle-tinkle of a bell: a search shows two or three cows, one of which, after the fashion of the old time, carries a bell. She comes and butts one playfully, and insists on her poll being rubbed. Then there is more grunting, but of a different kind—this time easily recognised: it is a herd of swine searching for the beechmast and acorns. With them, fortunately, comes the swineherd—a lad, who shows a drive which leads to the nearest edge of the forest.

Half an hour after leaving the swineherd, a rabbit is found sitting on his haunches, motionless, with the head drooping on one side. He takes no notice—he is dying. Just beneath one ear is a slight trace of blood—it is the work of a weasel, who fled on hearing approaching footsteps. Soon a film must form over the beautiful eye of the hunted creature: let us in mercy strike him a sharp blow on the head with the heavy

end of the walking-stick, and so spare him the prolonged sense of death. A hundred yards further is a gate, and beyond that an arable field. On coming near the gate a hawk glides swiftly downwards over the hedge that there joins the forest. A cloud of sparrows instantly rise from the stubble, and fly chirping in terror to the hedge for shelter; but one is too late, the hawk has him in his talons. Yonder is a row of wheat ricks, the fresh straw with which they have just been covered contrasting with the brown thatch of the farmhouse in the hollow. There a refreshing glass of ale is forthcoming, and the way is pointed out.

Chapter Fourteen.

The Rookery—Building Nests—Young Birds—Rook-Shooting—Stealing Rooks—Antics in the Air—Mode of Flight—White Rooks.

The city built by the rooks in the elms of the great pasture field (the Warren, near Wick farmhouse) is divided into two main parts; the trees standing in two rows, separated by several hundred yards of sward. But the inhabitants appear to be all more or less related, for they travel amicably in the same flock and pay the usual visit to the trees at the same hour. Some scattered elms form a line of communication between the chief quarters, and each has one or more nests in it. Besides these, the oaks in the hedgerows surrounding the field support a few nests, grouped three or four, in close neighbourhood. In some trees near the distant ash copse there are more nests whose owners probably sprang from the same stock, but were exiled, or migrated, and do not hold much communion with the capital.

In early days men seem to have frequently dug their entrenchments or planted their stockades on the summit of hills. To the rooks their trees are their hills, giving security from enemies. The wooden houses in the two main streets are evidently of greater antiquity than those erected in the outlying settlements. The latter are not large or thick: they are clearly the work of one, or at most two, seasons only; for it is noticeable that when rooks build at a distance from the centre of population they are some time before they finally decide on a site, abandoning one place after another. But the nests forming the principal streets are piled up to a considerable height—fresh twigs being added every year—and are also thick and bulky. The weight of the whole must be a heavy burden to the trees.

Much skill is shown in the selection of the branches upon which the foundations are laid. In the first place, the branch must fork sufficiently to hold the bottom twigs firmly and to give some side-support. Then it must be a branch more or less vertical, or it

would swing with the wind too much up and down as well as to and fro. Thirdly, there should be a clear or nearly clear space above the nest to give easy access, and to afford room for it to increase in size annually. For this reason, perhaps, nests are generally placed near the top or outer sides of the tree, where the boughs are smaller, and every upward extension reaches a clearer place. Fourthly, the bough ought not to be too stiff and firm; it should yield a little, and sway easily, though only in a small degree, to the breeze. If too stiff, in strong gales the nest runs the risk of being blown clean out of the tree. Fifthly, no other branch must rub against the one bearing the principal weight of the nest, for that would loosen the twigs in time, and dislocate the entire structure. Finally, rooks like an adjacent bough on which the bird, not actually engaged in incubation can perch and ‘caw’ to his mate, and which is also useful to alight on when bringing food for the young.

It may be that the difficulty of finding trees which afford all these necessary conditions is one reason why rooks who settle at a distance from their city seem long before they can please themselves. The ingenuity exercised in the selection of the bough and in the placing of the twigs is certainly very remarkable. When the wind blows furiously you may see the nest moving gently, riding on the swaying boughs, while one of the birds perches on a branch close by, and goes up and down like a boat on the waves. Except by the concussion of branches beating hard against the nest, it is rarely broken; up to a certain point it would seem as if the older nests are the firmest, perhaps because of their weight. Sometimes one which has been blown down in the winter—when the absence of protecting leaves gives the wind more power on them—retains its general form even after striking against branches in its descent and after collision with the earth.

Elms are their favourite trees for building in. Oak and ash are also used, but where there are sufficient elms they seem generally preferred. These trees, as a rule, grow higher than any others ordinarily found in the fields, and are more frequently seen in groups, rows, or avenues, thus giving the rook facilities for placing a number of nests in close neighbourhood. The height of the elm affords greater safety, and the branches are perhaps better suited for their purpose.

After building in an elm for many years—perhaps ever since the owner can remember—rooks will suddenly desert it. There are the old nests still; but no effort is made to repair them, and no new ones are made. The winds and storms presently loosen the framework, about which no care is now taken, and portions are blown down. Then by-and-by the discovery is made that the tree is rapidly dying. The leaves do not appear, or if they do they wither and turn yellow before Midsummer: gradually the branches decay and fall of their own weight or before the wind.

No doubt if anyone had carefully examined the tree he would have observed signs of decay long before the rooks abandoned it; but those who pass the same trees day after day for years do not observe minute changes, or, if they do, as nature is slow in her movements, get so accustomed to the sight of the fungi about the base, and the opening in the bark where the decomposing touchwood shows, as to think that it will always be so. At last the rooks desert it, and then the truth is apparent.

Their nests, being heavy, are not safe on branches up which the strengthening sap no longer rises; and in addition to the nest there is the weight of the sitting-bird, and often that of the other who perches temporarily on the edge. As the branches die they become stiff, and will not bend to the gale this immobility is also dangerous to the nest. So long as the bough yields and sways gently—not much, but still a little—the strong winds do no injury. When the bough becomes rigid, the broad—side or wall of the nest offers an unyielding surface, which is accordingly blown away.

The nests which contain young are easily distinguished, despite the height, by the almost continuous cry for food. The labour of feeding the voracious creatures must be immense, and necessity may partly account for the greater boldness of the old birds at that season. By counting the nests from which the cry proceeds the condition of the rookery is ascertained, and the amount of sport it will afford reckoned with some certainty. By noting the nests from which the cry arose last, it is known which trees to avoid in the rook-shooting; for the young do not all come to maturity at the same time, and there are generally a dozen or so which it is best to leave a week or a fortnight later than the rest.

When the young birds begin to quit the nests, and are observed perching on the tree or fluttering from branch to branch, they must not be left much longer before shooting, or they will wander and be lost. A very few days will then make all the difference; and so it has often happened that men expecting to make a great bag have been quite disappointed, notwithstanding the evident number of nests; the shooting has been held a day or so too late. The young birds get the use of their wings very quickly, and their instinct rather seems to be to wander than to remain in the immediate vicinity of their birthplace.

Some think that the old birds endeavour to entice them away as much as possible, knowing what is coming. It may be doubted if that is the case with respect to the very young birds; but when the young ones are capable of something like extended flight, and can cross a field without much difficulty, I think the parents do attempt to lead them away. When the shooting is in progress, if you will go a little distance from the rookery, out of the excitement of the sport, you may sometimes see two old rooks, one

on each side of a young one, cawing to it with all their might. The young bird is, perhaps, on the ground, or on a low hedge, and the old birds are evidently endeavouring to get it to move. Yet they have not learned the only way in which that can be done—i.e. by starting themselves and flying a short distance, and waiting, when the young bird will almost invariably follow.

If you approach the trio the two old birds at once take flight, seeing your gun, and the young bird in a few seconds goes after them. Had they the sense to repeat this operation, they might often draw the young one away from danger; as for their cawing, it does not seem to be quite understood by their offspring, who have hardly yet learned their own language.

To appreciate this effort on the part of the old birds, it must be recollected that immediately after the first shot the great mass of the old rooks fly off in alarm. They go to some distance and then wheel round and come back at an immense height, and there, collected in loose order, circle round and round, cawing as they sail. For an old rook to remain in or near the rookery when once the firing has commenced is the exception, and must be a wonderful effort of moral courage, for of all birds rooks seem most afraid of a gun; and naturally so, having undergone, when themselves young, a baptism of fire. Those that escape slaughter are for the most part early birds that come to maturity before the majority, and so leave the trees before the date fixed for shooting arrived, or acquire a power of flight sufficient to follow their parents on the first alarm to a safe distance. They have, therefore, a good opportunity of witnessing the destruction of their cousins, and do not forget the lesson.

Although the young birds upon getting out of the nest under ordinary conditions seem to like to wander, yet if they are driven out or startled by the shot they do not then at once endeavour to make for the open country or to spread abroad, but appear rather to cling to the place, as if the old nests could shelter them. After a while they begin to understand the danger of this proceeding, and half an hour's rapid firing causes the birds to spread about and get into the trees in the hedges at some distance. There of course they are pursued, or killed the next day, three-quarters of a mile or more away from home. It is rare for old rooks to get shot, for the reason above stated: they rise into the air out of reach. Those that are killed are generally such as have lingered in the hope to save a young bird, and are mistaken and shot as young themselves.

Young birds may be easily distinguished by their slow uncertain flight and general appearance of not knowing exactly where to go or what to do. They are specially easy to pick out if you see them about to perch on a tree. They go at the tree anyhow, crash in among the branches, and rather fall on a perch than choose it. The old bird always

enters a tree carefully, as if he did not like to ruffle his feathers, and knew precisely what sort of bough he preferred to settle on. Close to the rookery there is no need to wait to pick out the young birds, because they are all sure to be young birds there; but, as observed, old birds will linger with young ones at a little distance, and may then be mistaken—as also on the following day, when sportsmen go round to pick up the outsiders, and frequently come on old and young together. The old bird will not sit and let you aim at him perching; if you shoot him, it must be on the wing. The young bird will sit and let you pick him off with a crossbow, and even if a cartridge singes his wing he will sometimes only hop a yard or two along the boughs.

Though hard hit and shattered with shot, they will cling to the branches convulsively, seeming to hang by the crook of the claw or by muscular contraction even when perfectly dead, till lifted up by a shot fired directly underneath, or till the bough itself is skilfully cut off by a cartridge and both come down together. The young feathers being soft, and the quills not so hard as in older birds, scarcely a rook-shooting ever goes by without some one claiming to have made a tremendous long shot, which is quite possible, as it does not require many pellets or much force behind them.

On dropping a rook, probably at some distance from the rookery, where the men are whose duty it is to collect the slain, beware of carrying the bird; let him lie, or at most throw him upon a bramble bush in a conspicuous spot till a boy comes round. Rooks are perfectly infested with vermin, which in a few minutes will pass up their legs on to your hand, and cause an unpleasant irritation, though it is only temporary; for the insects cannot exist long away from the bird.

The young birds are occasionally stolen from the nests, notwithstanding the difficulty of access. Young labourers will climb the trees, though so large that they can scarcely grasp the trunk, and with few branches, and those small for some height; for elms are often stripped up the trunk to make the timber grow straight and free from the great branches called 'limbs.' Even when the marauder is in the tree he has some difficulty in getting at the nests, which are placed where the boughs diminish in size. Climbing-irons used to be sometimes employed for the purpose. As elm trees are so conspicuous, these thieving practices cannot well be carried on while it is light. So the rook-poachers go up the trees in the dead of night; and as the old rooks would make a tremendous noise and so attract attention, they carry a lantern with them, the light from which silences the birds. So long as they can see a light they will not caw.

The time selected to rob a rookery is generally just before the date fixed for the shooting, because the young birds are of little use for cooking till about ready to fly. The trick, it is believed, has often been played for the mere pleasure of spiting the

owner, the very night previous to the rook-shooting party being chosen. These robberies of young rooks are much less frequent than they used to be. One reason why those who possess any property in the country do not like to see a labouring man with a gun is because he will shoot an old rook (and often eat it), if he gets the opportunity, without reference to times or seasons, whether they are building or not.

The young rooks that escape being shot seem to be fed, or partly fed, by the old birds for some time after they can fly well and follow their parents. It is easy to know when there are young rooks in a flock feeding in a field. At the first glance the rooks look scattered about, without any order, each independent of the other. But in a few minutes it will be noticed that here and there are groups of three, which keep close together. These are formed of the parents and the young bird—apparently as big and as black as themselves—which they feed now and then. The young bird, by attending to their motions, learns where to find the best food. As late as July trios like this may sometimes be seen.

Besides the young birds that have the good fortune to pass unscathed through the dangers of rook-shooting day, and escape being knocked over afterwards, some few get off on account of having been born earlier than the majority, thus possessing a stronger power of flight. Some nests are known to be more forward than the others; but although the young birds may be on the point of departing, they are not killed because the noise of the firing would disturb the whole settlement. So that it becomes the rook's interest to incubate a little in advance of the rest.

After a few months they are put into another terrible fright—on the first of September. Guns are going off in all directions, no matter where they turn, so that they find it impossible to feel at ease, and instead of feeding wheel about in the air, or settle on the trees.

The glossy plumage of the rook will sometimes, when seen at a certain angle, reflect the sun's rays in such a manner that instead of looking black the bird appears clothed in shining light: it is as if the feathers were polished like a mirror. In feeding they work in a grave, steady way—a contrast to the restless starlings who so often accompany them. They do not put a sentinel in a tree to give warning of the approach of an enemy. The whole flock is generally on the ground together, and, if half-a-dozen perch awhile on the trees, they soon descend. So far are they from setting a watch, that if you pass up outside the hedge to the leeward, on any side except where the wind would carry the noise of footsteps to them, it is easy to get close—sometimes, if they are feeding near the hedge, within three or four yards. Of course if a rook happens to be in a tree it will not be possible to do so; but they do not set a sentinel for this purpose.

Rooks, in a general way, seem more at their ease in the meadows than in the arable fields. In the latter they are constantly fired at, if only with blank charges, to alarm them from the seed besides being shouted at and frightened with clappers. The bird-keeper's efforts are, however, of very little avail. If he puts the flock up on one side of the field, they lazily sail to a distant corner, and when he gets there go back again. They are fully aware that he cannot injure them if they keep a certain distance; but this perpetual driving to and fro makes them suspicious. In the meadows it is rare for them to be shot at, and they are consequently much less timid.

At the same time they can perfectly well distinguish a gun from a walking-stick. If you enter a meadow with a gun under your arm, and find a flock feeding, they immediately cease searching for food and keep a strict watch on your movements; and if you approach, they are off directly. If you carry a walking-stick only, you may pass within thirty yards sometimes, and they take little notice, provided you use the stick in the proper way. But now lift it, and point it at the nearest rook, and in an instant he is up with a 'caw' of alarm—though he knows it is not a gun—and flies just above the surface of the ground till he considers himself safe from possibility of danger. Often the whole flock will move before that gesture. It is noticeable that no wild creatures, birds or animals, like anything pointed at them: you may swing your stick freely, but point it, and off goes the finch that showed no previous alarm. So too, dogs do not seem easy if a stick is pointed at them.

Rooks are easily approached in the autumn, when gorging the acorns. They may often be seen flying carrying an acorn in the bill. Sometimes a flock will set to work and tear up the grass by the roots over a wide space—perhaps nearly half an acre—in search of a favourite beetle. The grass is pulled up in little wisps, just about as much as they can hold in their beaks at a time. In spring they make tracks through the mowing grass—not in all the meadows, but only in one here and there, where they find the food they prefer. These tracks are very numerous, and do the grass some damage. Besides following the furrows made by the plough, and destroying grubs, beetles, wireworm, and other pests in incalculable numbers, they seem to find a quantity of insect food in unripe corn; for they often frequent wheatfields only just turning yellow, and where the grain is not yet developed. Except perhaps where they are very numerous, they do much more good than harm.

Rooks may now and then be seen in the autumn, on the hayricks; they pull the thatch out, and will do in this way an injury to the roof. Therefore old black bottles are often placed on the thatch in order to scare them. It is said that they pull out the straw for the stray grains left in the ear by the threshing machine. This seems doubtful. It appears more probable that some insect found on the straw attracts them.

If you are walking past a feeding flock, the nearest rook to you will often exhibit a ridiculous indecision as to whether he shall fly or not. He stretches his neck and leans forward as if about to spring, stops, utters a questioning 'Cawk?' then watches you a moment and gives a hop, just opens his wings, shuts them, and descends within a couple of feet. 'Cawk!' again. Finally, if you turn from your course and make a step towards him, he rises, flaps his wings three or four times, extends them, and glides a dozen yards to alight once more.

Sometimes a flock will rise in the air, and silently wheel round and round after each other, gradually ascending and drifting slowly with the current till they reach a great height. When they soar like this it is said to foretell fine weather. At another time a flock will go up and wheel about in the strangest irregular manner. Every now and then one will extend his wings, holding them rigid, and dive downwards, in his headlong descent wavering to and fro like a sheet of paper falling edge first. He falls at a great pace, and looks as if he must be dashed to pieces against a tree or the earth; but he rights himself at the last moment, and glides away and up again with ease. Occasionally two or three rooks may be seen doing this at once, while the rest whirl about as if possessed; and those that are diving utter a gurgling sound like the usual cawk prolonged—'caw-wouk.' These antics are believed to foretell rough winds.

The rook, like other broad-winged birds, often makes much leeway in flying, though there be only a moderate wind. The beak points in one direction, in which the bird is apparently proceeding, but if observed closely it will be found that the real course is somewhat sideways. He is making leeway. So it is that a rook which looks as if coming straight towards you—as if he must inevitably go overhead—passes some distance to one side. He appears slow on the wing, as if to go fast required more energy than he possessed, yet he travels over great distances without the least apparent exertion.

When going with the wind he sails high in the air, only flapping his wings sufficiently to maintain balance and steering power. But when working against the wind, if it is a strong gale, his wings are used rapidly, and he comes down near the surface of the ground. He then flies just above the grass, only high enough to escape touching it, and follows the contour of the field. At the hedges he has to rise, and immediately meets the full force of the breeze. It is so powerful sometimes that he cannot overcome it, and his efforts simply lift him in the air, like a kite drawn against the wind. For a few moments he appears stationary, his own impetus and the contending wind balancing each other, and holding him suspended. Then he rises again, but still finding the current too strong, tacks like a ship to port or starboard, and so works aslant into the gale. Shortly afterwards he comes down again, if the field be a large one, and glides

forward in the same manner as before, close to the surface. In crossing the lake too, against the wind, he flies within a few feet of the water.

During such a gale a rook may often be seen struggling to get over a row of trees, and stationary, though using his wings vigorously, suspended a little way above the topmost branches. Frequently he has to give up the attempt, turn back, and make a *détour*.

Though rooks usually go in flocks, individuals sometimes get separated, and may be seen flying alone on the way to rejoin their friends. A flock of rooks, on rising, occasionally divides into two or more parties. Each section wheels off on its own course, while sometimes a small number of those who chance to be near the centre of the original formation seem at a loss which company to follow, and settle down again on the field. So a dozen or more become separated from the crowd, and presently, when they rise, they too divide; three or four fly one way to join one section, and others take another route. Individuals thus find themselves alone; but that causes them no uneasiness, as they have their well-known places of rendezvous, and have only to fly to certain fields to be sure of meeting their friends, or at most to wait about near the nesting-trees till the rest come.

It must not, therefore, be supposed that every one flying alone is a crow. Crows are scarce in comparison with rooks. In severe weather a rook will sometimes venture into the courtyard of the farmstead.

Two rooks marked with white resided at the rookery here for several years. One had sufficient white to be distinguished at a distance; the other seemed to have but one or two feathers, which were, however, visible enough when near the bird. As they have not been seen lately, they have probably been shot by some one who thought it clever to destroy anything out of the ordinary. Most large rookeries can either show a rook with white feathers, or have well authenticated records of their former existence; but though not rare, people naturally like to preserve them when they do occur, and it is extremely annoying to have them wantonly killed.

Chapter Fifteen.

Rooks Returning to Roost—Vast Flocks—Rook Parliament—The Two Rook Armies and their Routes—Rook Laws, Traditions, and Ancient History—“Throws” of Timber—Thieving Jackdaws.

As evening approaches, and the rooks begin to wing their way homewards, sometimes a great number of them will alight upon the steep ascent close under the entrenchment on the downs which has been described, and from whence the wood and beech trees where they sleep can be seen. They do not seem so much in search of food, of which probably there is not a great deal to be found in the short, dried-up herbage and hard soil, as to rest here, half-way home from the arable fields. Sometimes they wheel and circle in fantastic flight over the very brow of the down, just above the rampart; occasionally, in the raw cold days of winter, they perch moping in disconsolate mood upon the bare branches of the clumps of trees on the ridge.

After the nesting time is over and they have got back to their old habits—which during that period are quite reversed—it is a sight to see from hence the long black stream in the air steadily flowing onwards to the wood below. They stretch from here to the roosting-trees, fully a mile and a half—literally as the crow flies; and backwards in the opposite direction the line reaches as far as the eye can see. It is safe to estimate that the aerial army's line of march extends over quite five miles in one unbroken corps. The breadth they occupy in the atmosphere varies—now twenty yards, now fifty, now a hundred, on an average say fifty yards; but rooks do not fly very close together like starlings, and the mass, it may be observed, fly on the same plane. Instead of three or four layers one above the other, the greater number pass by at the same height from the ground, side by side on a level, as soldiers would march upon a road: not meaning, of course, an absolute, but a relative level. This formation is more apparent from an elevation—as it were, up among them—than from below; and looking along their line towards the distant wood it is like glancing under a black canopy.

Small outlying parties straggle from the line—now on one side, now on the other; sometimes a few descend to alight on trees in the meadows, where doubtless their nests were situated in the spring. For it is a habit of theirs, months after the nesting is over and also before it begins, to pay a flying visit to the trees in the evening, calling *en route* to see that all is well and to assert possession.

The rustling sound of these thousands upon thousands of wings beating the air with slow steady stroke can hardly be compared to anything else in its weird oppressiveness, so to say: it is a little like falling water, but may be best likened, perhaps, to a vast invisible broom sweeping the sky. Every now and then a rook passes with ragged wing—several feathers gone, so that you can see daylight through it; sometimes the feathers are missing from the centre, leaving a great gap, so that it looks as if the bird had a large wing on this side and on the other two narrow ones. There is a rough resemblance between these and the torn sails of some of the old

windmills which have become dark in colour from long exposure to the weather, and have been rent by the storms of years. Rooks can fly with gaps of astonishing size in their wings, and do not seem much incommoded by the loss—caused, doubtless, by a charge of shot in the rook-shooting, or by the small sharp splinters of flint with which the bird-keepers sometimes load their guns, not being allowed to use shot.

Near their nesting-trees their black feathers may be picked up by dozens in the grass; they beat them out occasionally against the small boughs, and sometimes in fighting. If seen from behind, the wings of the rook, as he spreads them and glides, slowly descending, preparatory to alighting, slightly turn up at the edges like the rim of a hat, but much less curved. From a distance as he flies he appears to preserve a level course, neither rising nor falling; but if observed nearer it will be seen that with every stroke of the wings the body is lifted some inches, and sinks as much immediately afterwards.

As the black multitude floats past overhead with deliberate, easy flight, their trumpeters and buglemen, the jackdaws—two or three to every company—utter their curious chuckle; for the jackdaw is a bird which could not keep silence to save his life, but must talk after his fashion, while his grave, solemn companions move slowly onwards, rarely deigning to ‘caw’ him a reply. But away yonder at the wood, above the great beech trees, where so vast a congregation is gathered together, there is a mighty uproar and commotion: a seething and bubbling of the crowds, now settling on the branches, now rising in sable clouds, each calling to the other with all his might, the whole population delivering its opinions at once.

It is an assemblage of a hundred republics. We know how free States indulge in speech with their parliaments and congresses and senates, their public meetings, and so forth: here are a hundred such nations, all with perfect liberty of tongue holding forth unsparingly, and in a language which consists of two or three syllables indefinitely repeated. The din is wonderful—each republic as its forces arrive adding to the noise, and for a long time unable to settle upon their trees, but feeling compelled to wheel around and discourse. In spring each tribe has its special district, its own canton and city, in its own trees away in the meadows. Later on they all meet here in the evening. It is a full hour or more before the orations have all been delivered, and even then small bands rush up into the air still dissatisfied.

This great stream of rooks passing over the hills meets another great stream as it approaches the wood, crossing up from the meadows. From the rampart there may be seen, perhaps a mile and a half away, a dim black line crossing at right angles—converging on the wood, which itself stands on the edge of the table-land from which

the steeper downs arise. This second army is every whit as numerous, as lengthy, and as regular in its route as the first.

Every morning, from the beech trees where they have slept, safe at that elevation from all the dangers of the night, there set out these two vast expeditionary corps. Regularly the one flies steadily eastward over the downs; as regularly the other flies steadily northwards over the vale and meadows. Doubtless in different country districts their habits in this respect vary; but here it is always east and always north. If any leave the wood for the south or the west, as probably they do, they go in small bodies and are quickly lost sight of. The two main divisions sail towards the sunrise and towards the north star.

They preserve their ranks for at least two miles from the wood; and then gradually first one and then another company falls out, and wheeling round, descends upon some favourite field, till by degrees, spreading out like a fan, the army melts away. In the evening the various companies, which may by that time have worked far to the right or to the left, gradually move into line. By-and-by the vanguard comes sweeping up, and each regiment rises from the meadow or the hill, and takes its accustomed place in the return journey.

So that although if you casually observe a flock of rooks in the daytime they seem to wander hither and thither just as fancy leads, or as they are driven by passers-by, in reality they have all their special haunts; they adhere to certain rules, and even act in concert, thousands upon thousands of them at once, as if in obedience to the word of command, and as if aware of the precise moment at which to move. They have their laws, from which there is no deviation: they are handed down unaltered from generation to generation. Tradition, indeed, seems to be their main guide, as it is with savage human tribes. They have their particular feeding grounds; and so you may notice that, comparing ten or a dozen fields, one or two will almost always be found to be frequented by rooks while the rest are vacant.

Here, for instance, is a meadow close to a farmstead—what is usually called the home-field, from its proximity to a house—here day after day rooks alight and spend hours in it, as much at their ease as the nag or the lambs brought up by hand. Another field, at a distance, which to the human eye appears so much more suitable, being retired, quiet, and apparently quite as full of food, is deserted; they scarcely come near it. The home-field itself is not the attraction, because other home-fields are not so favoured.

The tenacity with which rooks cling to localities is often illustrated near great cities where buildings have gradually closed in around their favourite haunts. Yet on the

small waste spots covered with cinders and dustheaps, barren and unlovely, the rooks still alight; and you may see them, when driven up from such places, perching on the telegraph wires over the very steam of the locomotives as they puff into the station.

I think that neither considerations of food, water, shelter, or convenience, are always the determining factors in the choice made by birds of the spots they frequent; for I have seen many cases in which all of these were evidently quite put on one side. Birds to ordinary observation seem so unfettered, to live so entirely without rhyme or reason, that it is difficult to convey the idea that the precise contrary is really the case.

Returning to these two great streams of rooks, which pour every evening in converging currents from the north and east upon the wood; why do they do this? Why not go forth to the west, or to the south, where there are hills and meadows and streams in equal number? Why not scatter abroad, and return according to individual caprice? Why, to go still further, do rooks manoeuvre in such immense numbers, and crows fly only in pairs? The simple truth is that birds, like men, have a history. They are unconscious of it, but its accomplished facts affect them still and shape the course of their existence. Without doubt, if we could trace that history back there are good and sufficient reasons why rooks prefer to fly in this particular locality, to the east and to the north. Something may perhaps be learnt by examining the routes along which they fly.

The second division—that which goes northwards, after flying little more than a mile in a straight line—passes over Wick Farm, and disperses gradually in the meadows surrounding and extending far below it. The rooks whose nests are placed in the elms of the Warren belong to this division, and, as their trees are the nearest to the great central roosting-place, they are the first to quit the line of march in the morning, descending to feed in the fields around their property. On the other hand, in the evening, as the army streams homewards, they are the last to rise and join the returning host.

So that there are often rooks in and about the Warren later in the evening after those whose habitations are farther away have gone by, for, having so short a distance to fly, they put off the movement till the last moment. Before watches became so common a possession, the labouring people used, they say, to note the passage overhead of the rooks in the morning in winter as one of their signs of time, so regular was their appearance; and if the fog hid them, the noise from a thousand black wings and throats could not be missed.

If, from the rising ground beyond the Warren or from the downs beyond that, the glance is allowed to travel slowly over the vale northwards, instead of the innumerable meadows which are really there, it will appear to consist of one vast forest. Of the hamlet not far distant there is nothing visible but the white wall of a cottage, perhaps, shining in the sun, or the pale blue smoke curling upwards. This wooded appearance is caused by timber trees standing in the hedgerows, in the copses at the corners of the meadows, and by groups and detached trees in the middle of the fields.

Many hedges are full of elms, some have rows of oaks; some meadows have trees growing so thickly in all four hedges as to seem surrounded by a timber wall; one or two have a number of ancient spreading oaks dotted about in the field itself, or standing in rows. But there are not nearly so many trees as there used to be. Numerous hedges have been grubbed to make the fields larger.

Within the last thirty years two large falls of timber have taken place, when the elms especially were thrown wholesale. The old men, however, recall a much greater 'throw,' as they term it, of timber, which occurred twice as long ago. Then before that they have a tradition that a still earlier 'throw' took place, when the timber chiefly went to the dockyards for the building of those wooden walls which held the world at bay. These traditions go back, therefore, some eighty or a hundred years. One field in particular is pointed out where stood a double row or avenue of great oaks leading to nothing but a farmstead of the ordinary sort, of which there is not the slightest record that it ever was anything but a farmhouse. Now avenues of great oaks are not planted to lead to farmsteads. Besides these, it is said, there were oaks in most of the fields—oaks that have long since disappeared, the prevalent tree being elm.

While all these 'throws' of timber have successively taken place, no attempt has been made to fill up the gaps; no planting of acorns, no shielding with rails the young saplings from the ravages of cattle. If a young tree could struggle up it could; if not, it perished. At the last two 'throws,' especially, young trees which ought to have been saved were ruthlessly cut down. Yet even now the place is well timbered; so that it is easy to form some idea of the forest-like appearance it must have presented a hundred years ago, when rows of giant oaks led up to that farmhouse door.

Then there are archaeological reasons, which it would be out of place to mention, why in very ancient days a forest, in all probability, stood hereabouts. It seems reasonable to suppose that in one way or another the regular flight of the second army of rooks passing down into this district was originally attracted by the trees. Three suggestions arise out of the circumstances.

The wood in which both streams of rooks roost at night stands on the last slope of the downs; behind it to the south extend the hills, and the open tilled upland plains; below it northwards are the meadows. It has, therefore, much the appearance of the last surviving remnant of the ancient forest. There has been a wood there time out of mind: there are references to the woods of the locality dating from the sixteenth century. Now if we suppose (and such seems to have been really the case) the unenclosed woodlands below gradually cleared of trees—thereby doubtless destroying many rookeries—the rooks driven away would naturally take refuge in the wood remaining. There the enclosure protected them, and there the trees, being seldom or never cut down, or if cut down felled with judgment and with a view to future timber, grew to great size and in such large groups as they prefer. But as birds are creatures of habit, their descendants in the fiftieth generation would still revisit the old places in the meadows.

Secondly, although so many successive ‘throws’ of timber thinned out the trees, yet there may still be found more groups and rows of elms and oak in this direction than in any other; that is, a line drawn northwards from the remaining wood passes through a belt of well-timbered country. On other side of this belt there is much less timber; so that the rooks that desired to build nests beyond the limits of the enclosed wood still found in the old places the best trees for their purpose. Here may be seen far more rookeries than in any other direction. Hardly a farmhouse lying near this belt but has got its rookery, large or small. Once these rookeries were established, an inducement to follow this route would arise in the invariable habit of the birds of visiting their nesting-trees even when the actual nesting time is past.

Thirdly, if the inquiry be carried still farther back, it is possible that the line taken by the rooks indicates the line of the first clearings in very early days. The clearing away of trees and underwood, by opening the ground and rendering it accessible, must be very attractive to birds, and rooks are particularly fond of following the plough. Now although the district is at present chiefly meadow land, numbers of these meadows were originally ploughed fields, of which there is evidence in the surface of the fields themselves, where the regular ‘lands’ and furrows are distinctly visible.

One or all of these suggestions may perhaps account for the course followed by the rooks. In any case it seems natural to look for the reason in the trees. The same idea applies to the other stream of rooks which leaves the wood for the eastward every morning, flying along the downs. In describing the hill district, evidence was given of the existence of woods or forest land upon the downs in the olden time. Detached copses and small woods are still to be found; and it happens that a part of this

district, in the line of the eastward flighty belonged to a 'chase' of which several written notices are extant.

The habits of rooks seem more regular in winter than in summer. In winter the flocks going out in the morning or returning in the evening appear to pass nearly at the same hour day after day. But in summer they often stay about late. This last summer (1878) I noticed a whole flock, some hundreds in number, remaining out till late—till quite dusk—night after night, and always in the same place. It was an arable field, and there they stood close together on the ground, so close that in spots it was difficult to distinguish individuals. They were silent and still, making no apparent attempt at feeding. The only motion I observed was when a few birds arrived and alighted among them. Where they thus crowded together the earth was literally black.

It was about three-quarters of a mile from their nesting-trees, but nesting had been over for more than two months. This particular field had recently been ploughed by steam tackle, and was the only one for a considerable distance that had been ploughed for some time. There they stood motionless, side by side, as if roosting on the ground; possibly certain beetles were numerous just there (for it was noticeable that they chose the same part of the field evening after evening), and came crawling up out of the earth at night.

The jackdaws which—so soon as the rooks pack after nesting and fly in large flocks—are always with them, may be distinguished by their smaller size and the quicker beats of their wings, even when not uttering their well-known cry. Jackdaws will visit the hencoops if not close to the house, and help themselves to the food meant for the fowls. Poultry are often kept in rickyards, a field or two distant from the homestead, and it is then amusing to watch the impudent attempts of the jackdaws at robbery. Four or five will perch on the post and rails, intent on the tempting morsels: sitting with their heads a little on one side and peering over. Suddenly one thinks he sees an opportunity. Down he hops, and takes a peck, but before he has hardly seized it, a hen darts across, running at him with beak extended like lance in rest. Instantly he is up on the rail again, and the impetus of the hen's charge carries her right under him.

Then, while her back is turned, down hops a second and helps himself freely. Out rushes another hen, and up goes the jackdaw. A pause ensues for a few minutes: presently a third black rascal dashes right into the midst of the fowls, picks up a morsel, and rises again before they can attack him. The way in which the jackdaw dodges the hens though alighting among them, and as it were for the moment surrounded, is very clever; and it is laughable to see the cool impudence with which

he perches again on the rail, and looks down demurely, not a whit abashed, on the feathered housewife he has just been doing his best to rob.

Chapter Sixteen.

Notes on Birds—Nightingales—Chaffinches—Migration—Packing— Intermarriage—Peewits—Crows—Cuckoos—Golden-Crested Wren.

The nightingale is one of the birds whose habit of returning every year to the same spot can hardly be overlooked by anyone. Hawthorn and hazel are supposed to attract them: I doubt it strongly. If there is a hawthorn bush near their favourite nesting-place they will frequent it by choice, but of itself it will not bring nightingales. They seem to fix upon localities in the most capricious manner. In this particular district they are moderately plentiful; yet in the whole of a large parish (some five miles across) they are only found in one place. The wood which is the roosting-place of all the rooks, large as it is, has but one haunt of the nightingale. Just in one special spot they may be heard, and nowhere else. But having selected a locality, they come back to it as regularly as the swallows.

In another county in the same latitude there is a small copse of birch which borders a much-frequented road. Here the stream of vehicles and passengers is nearly continuous; and the birch copse abounds with nightingales in the spring. On one fine morning I counted eight birds singing at once. The young birds seemed afterwards as numerous as the sparrows. Never, in the wildest district I have ever visited, have I seen so many. They had become so accustomed to passers-by that they took no notice unless purposely disturbed. Several times I stood under an oak bough that projected across the sward by the roadside, with a nightingale perched on it overhead straining his throat. The bough was some twelve feet high, and in full view of everyone. This road was constructed about a hundred years ago; and it would be interesting to learn if a country lane preceded it, well sheltered on both sides by thick hedges. Birds are fond of such places, and, having once formed the habit of coming there, would continue to do so after the highway was laid down.

It has been stated that the flocks of chaffinches which may be seen in winter consist entirely of females. Male chaffinches are rarely seen: they have migrated, or in some other manner disappeared. Yet so soon as the spring comes on the males make their presence known by calling their defiant notes from every elm along the road. Last spring (1878) I fell into conversation with a fowler. He had a cock chaffinch in a cage covered with a black cloth, except on one side. The cage was placed on the sward

beside the—road, and near it a stuffed cock bird stood on the grass. Two pieces of whalebone smeared with bird-lime formed a pointed arch over the stuffed chaffinch. The live decoy bird in the cage from time to time uttered a few notes, which were immediately answered by a wild bird in the elms overhead. These notes are a challenge; and the bird in the tree supposes them to proceed from the stuffed bird in the grass, and descends to fight him, when, as the deceived bird alights, his wings or feet come in contact with the whalebone—sometimes he perches on it—and the lime holds him fast.

At that season (March) the cock birds have an irresistible inclination to do battle; they are ceaselessly challenging each other, and the fowler takes advantage of it to snare them. Now this man said that these chaffinches sold for 6 shillings the dozen, and that when the birds were 'on,' as he called it, he could catch five dozen a day. In a walk of four or five miles I passed half-a-dozen such fellows, with cages and stuffed chaffinches. This alone proves that cock chaffinches are very numerous in spring. Where, then, are they in winter, if the flocks of chaffinches at that period consist almost exclusively of female birds? Probably they fly in small bodies of three or four, or singly, and so escape observation. But this division of the sexes presents a curious resemblance to the social customs discovered amongst certain savages. During the winter the birds separate, and the females 'pack.' In the spring the males appear, and, after a period of fighting for the mastery, pair, and the nests are built. After the young are reared, song ceases, and the old haunts are deserted. This summer I was much struck with this partial migration, perhaps the more so because observed in a fresh locality.

During the spring and summer I daily followed a road for some three miles which I had found to pass through a district much-frequented by birds. The birch coppice so favoured by nightingales was that way; and, by the bye, the wrynecks were almost equally numerous; and the question has occurred to me whether these birds are companions, in a sense, of the nightingale, having noticed them in other places to be much together. All spring and summer the hedges, coppices, brakes, thickets, furze lands, and cornfields abounded with bird life. About the middle of August there was a notable decrease. Early in September the places previously so populous seemed almost deserted; by the middle of the month quite deserted.

There were no chaffinches in the elms or in the road, and scarcely a sparrow; not a yellowhammer on the hedge by the cornfield; only a very few greenfinches; not a single bullfinch or goldfinch. Blackbirds, thrushes, and robins alone remained. The way to find what birds are about is to watch one of their favourite drinking and bathing-places; then it is easy to see which are absent. Where had all these birds gone to? In

the middle of the fields of stubble there were flocks of sparrows—almost innumerable sparrows—and some finches, but not, apparently, enough to account for all that had left the hedges and trees. That may be explained by their being scattered over so many broad acres—miles of arable land being open to them.

But the migration from the hedgerows was very marked. They became quite empty and silent about the middle of September. This state of things continued for little more than a week—meaning the absolute silence—then a bird or two appeared in places at long intervals. They now came back rapidly, till, on the 28th, the ‘fink, chink’ of the finches sounded almost as merrily as before. The greenfinches flew from tree to tree in parties of four, six, or more, calling to each other in their happy confidential way. On that day the trees and hedges seemed to become quite populous again with finches. The sparrows, too, were busy in the roads once more. For a week previously every now and then a single lark might be heard singing for a few minutes: they had been silent before. On the 28th half-a-dozen could be heard singing at once, and now and then a couple might be seen chasing each other as if full of gaiety. It was indeed almost like a second spring: at the same time a few buttercups bloomed, to add to the illusion.

This migration of the finches from the hedgerows out into the fields, and their coming back, is very striking. It may possibly be connected with the phenomenon of ‘packing;’ for they seem to go away by twos and threes, to disappear gradually, but to return almost all at once, and in parties or flocks. The number in the flocks varies a great deal: it is a common opinion that it depends on the weather, and that in hard winters, when the cold is severe and prolonged, the flocks are much larger. Wood-pigeons are seldom, it is said, seen in great flocks till the winter is advanced.

Has the date of the harvest any influence upon the migration of birds? The harvest in some counties is, of course, much earlier than in others—a fact of which the itinerant labourer takes advantage, following the wave of ripening grass and corn. By the time they have mown the grass or reaped the wheat, as the case may be, in one county, the crops are ripe in another, to which they then wend their way.

One of the very earliest counties, perhaps, is Surrey. The white bloom of the blackthorn seems to show there a full fortnight earlier than it does on the same line of latitude not many miles farther west. The almond trees exhibit their lovely pink blossom; the pears bloom, and presently the hawthorn comes out into full leaf, when a degree of longitude to the west the hedges are bare and only just showing a bud. Various causes probably contribute to this—difference of elevation, difference of soil, and so forth. Now the spring visitors—as the cuckoo, the swallow, and wryneck—appear in Surrey considerably sooner than they do farther west. The cuckoo is

sometimes a full week earlier. It would seem natural to suppose that the more forward state of vegetation in that county has something to do with the earlier appearance of the bird. But I should hesitate to attribute it entirely to that cause, for it sometimes happens that birds act in direct opposition to what we should consider the most eligible course.

For instance, the redwing is one of our most prominent winter visitors. Flocks of redwings and fieldfares are commonly seen during the end of the season. They come as winter approaches, they leave as it begins to grow warm. In every sense they are birds of passage: any ploughboy will tell you so. (By-the-by, the ploughboys call the fieldfares 'velts.' Is not 'velt' a Northern word for field?) But one spring—it was rapidly verging on summer—I was struck day after day by hearing a loud, sweet but unfamiliar note in a certain field. Fancying that most bird notes were known to me, this new song naturally arrested my attention. In a little while I succeeded in tracing it to an oak tree. I got under the oak tree, and there on a bough was a redwing singing with all his might. It should be remarked that neither redwing nor fieldfare sings during the winter; they of course have their 'call' and cry of alarm, but by no stretch of courtesy could it be called a song. But this redwing was singing—sweet and very loud, far louder than the old familiar notes of the thrush. The note rang out clear and high, and somehow sounded strangely unfamiliar among English meadows and English oaks.

Then, looking farther and watching about the hedges there, I soon found that the bird was not alone—there were three or four pairs of redwings in close neighbourhood, all evidently bent upon remaining to breed. To make quite sure, I shot one. Afterwards I found a nest, and had the pleasure of seeing the young birds come to maturity and fly.

Nothing could be more thoroughly opposed to the usual habits of the bird. There may be other instances recorded, but what one sees oneself leaves so much deeper an impression. The summer that followed was a very fine one. It is instances like this that make one hesitate to dogmatise too much as to the why and wherefore of bird-ways. Yet it is just the speculation as to that why and wherefore which increases the pleasure of observing them.

Then there is the corncrake, of whose curious tricks in the mowing grass I have already written. The crake's rules of migration are not easily reconciled with any theory I have ever heard of. In the particular locality which has been described the crakes come early, they enter the mowing grass and remain there till after it is cut; immediately afterwards they are heard in the corn. Presently they are silent and supposed to be gone; but I have heard of their being shot in the opening of the shooting season on the uplands. The cry of the crake in that locality is so common and so continuous as to

form one of the most striking features of the spring: the farmers listen for them, and note their first arrival just as for the cuckoo—which it may be observed, in passing, even in England keeps time with the young figs.

But when I had occasion to pass a spring in Surrey the first thing I noticed was the rarity of the crakes; I heard one or two at most, and that only for a short time. Long before the grass was mown they were gone—doubtless northwards, having only called in passing. I am told they call again in coming back, and are occasionally shot in September. But the next spring, chancing again to be in Surrey at that season, though constantly about out of doors, I never heard a crake but once—one single call—and even then was not quite sure of it. I am told, again, that there are parts of the county where they are more numerous: they were certainly scarce those two seasons in that locality. Now here we have an instance in direct contradiction to the suggestion that the early state of vegetation is attractive to our spring visitors. The crakes appeared to come earlier, in larger numbers, and to be more contented and make a longer stay in the colder county than in the warm one.

The packing of birds is very interesting, and no thoroughly satisfactory explanation of it, that I am aware of, has ever been discovered. It is one of the most prominent facts in their history. It is not for warmth, because they pack long before it is cold. This summer I saw large flocks of starlings flying to their favourite firs to roost on the evening of the 19th of June. The cuckoo was singing on the 17th, two days before.

It would be interesting to know, too, whether birds are really as free in the choice of their mates in spring as at first sight appears. They return to the same places, the same favourite hedge, and even the same tree. Now, when the flocks split up into sections as the spring draws near, each section or party seems to revisit the hedge from which they departed last autumn. Do they, then, intermarry year after year? and is that the reason why they return to the same locality? The fact of a pair building by chance in a certain hedge is hardly enough to account for the yearly return of birds to the spot. It seems more like the return of a tribe or *gens* to its own special locality. The members of such a *gens* must in that case be closely related. As it is not possible to identify individual birds, the difficulty of arriving at a clear understanding is great.

Why, again, do not robins pack? Why do not blackbirds, and thrushes, go in flocks? They never merge their individuality all the year round. Even herons, though they fish separately, are gregarious in building, and also often in a sense pack during the day, standing together on a spit or sandbank. Rooks, starlings, wood-pigeons, fieldfares, and redwings, may be seen in winter all feeding in the same field, and all in large flocks.

Some evidence of a supposed tendency to intermarry among birds may perhaps be deduced from the practice of the long-tailed titmouse. This species builds a nest exactly like a hut, roof included, and in it several birds lay their eggs: as many as twenty eggs are sometimes found; fourteen is a common number. Here there is not only the closest relationship, but a system of community. This tit has a way sometimes of puffing up its feathers—they are fluffy, and in that state look like fur—and uttering a curious sound much resembling the squeak of a mouse; hence, perhaps, the affix ‘mouse’ to its name.

The tomtit also packs, and flies in small parties almost all the year round. They remain in such parties until the very time of nesting. On March 24th last, while watching the approach of a snowstorm, I noticed that a tall birch tree—whose long, slender, weeping branches showed distinctly against the dark cloud—seemed to have fruit hanging at the end of several of the boughs. On going near I counted six tomtits, as busy as they could be, pendent from as many tiny drooping boughs, as if at the end of a string, and swinging to and fro as the rude blast struck the tree. The six in a few minutes increased to eight, then to nine, then to twelve, and at last there were fourteen together, all dependent from the very tiniest drooping boughs, all swinging to and fro as the snow-flakes came silently floating by, and all chuckling and calling to each other. The ruder the blast and the more they swung—heads downwards—the merrier they seemed, busily picking away at the young buds. Some of them remained in the tree more than an hour.

Peewits or lapwings not only pack in the winter, but may almost be said to pass the nesting time together. There are two favourite localities in the district, which has been more particularly described, much-frequented by these birds. One is among some water-meadows, where the grass is long earlier in the spring than elsewhere: there the first bennet pushes up its green staff—country people always note the appearance of the first bennet—and the first cuckoo-flower opens. Several nests are made here on the ground, in comparatively close contiguity.

Upon approaching, the old bird flies up, circles round, and comes so near as almost to be within reach, whistling ‘pee-wit, pee-wit,’ over your head. He seems to tumble in the air as if wounded and scarcely able to fly; and those who are not aware of his intention may be tempted to pursue, thinking to catch him. But so soon as you are leaving the nest behind he mounts higher, and wheels off to a distant corner of the field, uttering an ironical ‘pee-wit’ as he goes. If you neglect his invitation to catch him if you can, and search for the nest or stand still, he gets greatly excited and comes much closer, and in a few minutes is joined by his mate, who also circles round; while several of their friends fly at a safer distance, whistling in sympathy.

Then you have a good opportunity of observing the peculiar motion of their wings, which seem to strike simply downwards and not also backwards, as with other birds; it is a quick jerking movement, the wing giving the impression of pausing the tenth of a second at the finish of the stroke before it is lifted again. If you pass on a short distance and make no effort to find the nest, they recover confidence and descend. When the peewit alights he runs along a few yards rapidly, as if carried by the impetus. He is a handsome bird, with a well-marked crest.

The other locality to which I have referred was a wide open field full of ant-hills. There must have been eight or ten acres of these hills. They rose about eighteen inches or two feet, of a conical shape, and overgrown by turf, like thousands of miniature extinct volcanoes. They were so near together that it was easy to pass twenty or thirty yards without once touching the proper surface of the ground, by springing from one ant-hill to the other. Thick bunches of rushes grew between, and innumerable thistles flourished, and here and there scattered hawthorn bushes stood. It was a favourite place with the finches; the hawthorn bushes always had nests in them. Thyme grew luxuriantly on the ground between the nests and on the ant-hills. Wild thyme and ants are often found together, as on the Downs. How many millions of ants must have been needed to raise these hillocks! and what still more incalculable numbers must have lived in them! A wilder spot could scarcely have been imagined, though situate between rich meadow and ploughed lands.

There was always a covey of partridges about the field, but they could not have had such a feast of eggs as would naturally be supposed, because in the course of time a crust of turf had grown over the ant-hills. The temporary hills of loose earth thrown up every summer by the sides of the fields, where they can lay bare a whole nest with two or three scratches, must afford much more food. Had it been otherwise all the partridges in the neighbourhood would have gathered together here; but there never seemed more than one or two coveys about.

The peewits had nests year after year in this place, and even when the nesting time was over a few might often be seen. The land for agricultural purposes was almost valueless, there being so little herbage upon which cattle could graze, and no possibility of mowing any; so in the end gangs of labourers were set to work and the ant-hills levelled, and, indeed, bodily-removed. Thus this last piece of waste land was brought into use.

Upon the Downs there is a place haunted by some few peewits. In the colder months they assemble in flocks, and visit the arable land where it is of a poor character, or where there are signs of peat in the soil. By the shores of the lake they may, too, be

often seen. I have counted sixty in one flock, and have seen flocks so numerous as to be unable to count them accurately; that of course was exceptional, but they are by no means uncommon birds in this district. In others it seems quite a rare thing to see a lapwing.

They often appear to fly for a length of time together for the mere pleasure of flying. They rise without the slightest cause of alarm, and sail about to and fro over the same field for half an hour, then settle and feed again, and presently take wing and repeat the whirling about overhead. Solitary peewits will do the same thing; you would imagine they were going off at a great pace, instead of which back they come in a minute or two. Other birds fly for a purpose: the peewit seems to find enjoyment beating to and fro in the air.

Crows frequently build in oaks, and unless they are driven away by shot will return to the same neighbourhood the following year. They appear to prefer places near water, and long after the nesting time is past will visit the spot. Small birds will sometimes angrily pursue them through the air as they will hawks. As autumn approaches the swallows congregate on warm afternoons on church steeples; they may be seen whirling round and round in large flocks, and presently settling. I saw a crow go past a steeple a short time since where there was a crowd of swallows, when immediately the whole flock took wing, and circled about the crow, following him for some distance. He made an awkward attempt once to get at some of them, but their swiftness of wing took them far out of his reach. Crows make no friends; rooks, on the contrary, make many, and are often accompanied by several other species of birds. A certain friendliness, too, seems to exist between sparrows, chaffinches, and greenfinches, which are often found together.

Some fields are divided into two by a long line of posts and rails, which in time become grey from the lichen growing on the wood. The cuckoos in spring seem to like resting on such rails better than the hedges; and when they are courting, two, or even three, may be sometimes seen on them together. Presently they fly, and are lost sight of behind the trees: but one or other is nearly sure to come back to the rails again after awhile. Cuckoos perch frequently, too, on those solitary upright stones which here and there stand in the midst of the fields. This habit of theirs is quoted by some of the old folks as an additional proof that the cuckoo is only a hawk changed for the time, and unable to forget his old habits, hawks (and owls) perching often on poles or anything upright and detached.

The cuckoo flies so much like the hawk, and so resembles it, as at the first glance to be barely distinguishable; but on watching more closely it will be seen that the cuckoo

flies straight and level, with a gentle fluttering of the wings, which never seem to come forward, so that in outline he resembles a crescent, the convex side in front. His tail appears longer in proportion, and more pointed; his flight is like that of a very large swallow flying straight. The cuckoo's cry can perhaps be heard farther than the call of any other bird. The heron's power of voice comes nearest: he sails at a great height, and his 'quaaack,' drawn out into a harsh screech, may be heard at a long distance. But then he has the advantage of elevation; the cuckoo never rises above the tops of the elms.

Yellowhammers have a habit of sitting on a rail or bough with their shoulders humped, so that they seem to have no neck. In that attitude they will remain a long time, uttering their monotonous chant; most other birds stretch themselves and stand upright to sing. The great docks that grow beside the ditches are visited by the tomtits, who perch on them,—the stalk of the dock is strong and supports so light a weight easily. Sparrows may sometimes be seen in July hawking in the air just above the sward by the roadside—hovering like the kestrel, a foot or so high, and then suddenly dropping like stones: they are then so absorbed that they will scarcely fly away on your approach. At the same time a rather long red fly is abundant in the grass, and may be the attraction. The swift's long narrow wings shut behind him as if with a sharp snip, cutting the air like shears; and then, holding them extended, he glides like a quoit.

In old days men used to be on the watch about the time of the great race-meetings, in order to shoot at every pigeon that went past, in hope of finding a message attached to the bird, and so getting the advantage of early intelligence. In one such case I heard of, the pigeon had the name of the winner, and was shot on a tree where it had alighted, weary from want of food or uncertain as to its course.

The golden-crested wren—smallest of the birds—scarcely ever leaves the shelter of the hedges and trees. The crest or top-knot is not exactly golden, but rather orange; and as the body of the tiny creature is dusky in hue, the bright colour on its head shines like flame in contrast. By this ruddy lamp upon its head the wren may be discovered hidden deep in the intricate mazes of the thorn bushes, where otherwise it would be difficult to find it. These wrens are usually in pairs; I have seldom seen one by itself. They are not rare, and yet are comparatively little seen, and must I think travel a good deal. All the same, they have their favourite places; there was one hedge where, if the bird was anywhere in the neighbourhood, I could feel sure of finding him. It was very thick and entirely of hawthorn and blackthorn, and divided two water-meadows.

Chapter Seventeen.

Notes on the Year—The Two Natural Eras—Spiders—The Seasons Represented Together—A Murderous Wasp—Feng-Shui—The Birds' White Elephant—Hedge Memoranda.

There are few hedges so thick but that in January it is possible to see through them, frost and wind having brought down the leaves. The nettles, however, and coarse grasses, dry brown stems of dead plants, rushes, and moss still in some sense cover the earth of the mound, and among them the rabbits sit out in their forms. Looking for these with gun and spaniel, when the damp mist of the morning has desired, one sign—one promise—of the warm days to come may chance to be found. Though the sky be gloomy, the hedge bare, and the trees gaunt, yet among the bushes a solitary green leaf has already put forth. It is on the stalk of the woodbine which climbs up the hawthorn, and is the first in the new year—in the very darkest and blackest days—to show that life is stirring. As it is the first to show a leaf, so, too, it is one of the latest to yield to the advancing cold, and even then its bright red berries leave a speck of colour; and its bloom, in beauty of form, hue, and fragrance, is not easily surpassed.

While the hedges are so bare the rabbits are unmercifully ferreted, for they will before long begin to breed. On the milder mornings the thrushes are singing sweetly. Clouds of tiny gnats circle in the sheltered places near houses or thatch. In February 'fill-ditch', as the old folk call it, on account of the rains, although nominally in the midst of the winter quarter, there is a distinct step forward. If the clouds break and the wind is still, the beams of the sun on the southern side of the wall become pleasantly genial. In the third week they bring forth the yellow butterfly, fluttering gaily over the furze; while the larks on a sunny day, chasing each other over the ploughed fields, make even the brown clods of earth seem instinct with awakening life. The pairing off of the birds is now apparent in every hedge, and at the same time on the mounds, and under sheltering bushes and trees a deeper green begins to show as the plants push up.

The blackthorn is perhaps the first conspicuous flower; but in date it seems to vary much. On the 22nd of February, 1877, there were boughs of blackthorn in full bloom in Surrey, and elder trees in leaf; nearly three weeks before that, at the beginning of the month, there were hawthorn branches in full leaf in a sheltered nook in Kent. A degree further west, on the contrary, the hawthorn did not show a leaf for some time after the blackthorn had bloomed in Surrey. The farmers say that the grass which comes on rapidly in the latter days of February and early days of March, 'many weathers' (in their phrase), often 'goes back' later in the season, and loses its former progress.

Lady-day (old style) forms with Michaelmas the two eras, as it were, of the year. The first marks the departure of the winter birds and the coming of the spring visitors; the second, in reverse order, marks the departure of the summer birds and the appearance of the vanguard of the winter ones. In the ten days or fortnight succeeding Lady-day (old style)—say from the 6th of April to the 20th—great changes take place in the fauna and flora; or, rather, those changes which have long been slowly maturing become visible. The nightingales arrive and sing, and with them the white butterfly appears. The swallow comes, and the wind-anemone blooms in the copse. Finally the cuckoo cries, and at the same time the pale lilac cuckoo-flower shows in the moist places of the mead.

The exact dates, of course, vary with the character of the season and the locality; but, speaking generally, you should begin to keep a keen lookout for these signs of spring about old Lady-day. In the spring of last year, in a warm district, the nightingale sang on the 12th of April, a swallow appeared on the 13th, and the note of the cuckoo was heard on the 15th. No great reliance should be put upon precise dates, because in the first place they vary annually, and in the next an observer can, in astronomical language, only sweep a limited area, and that but imperfectly; so that it is very likely some ploughboy who thinks nothing of it—except to immediately imitate it—hears the cuckoo forty-eight hours before those who have been listening most carefully. So that these dates are not given because they are of any intrinsic value, but simply for illustration. On the 14th of April (the same spring) the fieldfares and redwings were passing over swiftly in small parties—or, rather, in a long flock scattered by the march—towards the North Sea and their summer home in Norway. The winter birds, and the distinctly spring and summer birds, as it were, crossed each other and were visible together, their times of arrival and departure overlapping.

As the sap rises in plants and trees, so a new life seems to flow through the veins of bird and animal. The flood-tide of life rises to its height, and after remaining there some time, gradually ebbs. Early in August the leaves of the limes begin to fade, and a few shortly afterwards fall: the silver birch had spots of a pale lemon among its foliage this year on August 13. The brake fern, soon after it has attained its full growth, begins to turn yellow in places. There is a silence in the hedges and copses, and an apparent absence of birds. But about Michaelmas (between the new and old styles) there is a marked change. It is not that anything particular happens upon any precise day, but it is a date around which, just before and after, events seem to group themselves.

Towards the latter part of September the geometrical spiders become conspicuous, spinning their webs on every bush. Some of these attain an enormous size, and, being so large, it is easier to watch their mode of procedure. When a fly becomes entangled,

the spider seizes it by the poll, at the back of the head, and holds it for a short time till it dies. Then he rapidly puts a small quantity of web round it; and next carries it to the centre of the web. There, taking the dead fly on his feet—much as a juggler plays with a ball upon his toes—the spider rolls it round and round, enveloping it in a cocoon of web, and finally hangs up his game head uppermost, and resumes his own position head downwards. Another spider wraps his prey in a cocoon by spinning himself and the fly together round and round. At the end of September or beginning of October acres of furze may be seen covered with web in the morning, when the dew deposited upon it renders it visible. As the sun dries up the dew the web is no longer seen.

On September 21 of last year the rooks were soaring and diving; they continued to do this several days in succession. I should like to say again that I attach no importance to these dates, but give them for illustration: these, too, were taken in a warm district. Rooks usually soar a good deal about the time of the equinox. On September 29 the heaths and furze were white with the spiders' webs alluded to above. September 27, larks singing joyously. October 2, a few grasshoppers still calling in the grass—heard one or two three or four days later. October 4, the ivy in full flower. October 7, the thrushes singing again in the morning. October 6 and 7, pheasants roaming in the hedges for acorns. October 13, a dragon-fly—large and green—hawking to and fro on the sunny side of hedge. October 15, the first redwing. During latter part of September and beginning of October, frogs croaking in the ivy.

Now, these dates would vary greatly in different localities, but they show, clearer than a mere assertion, that about that time there is a movement in nature. The croaking of frogs, the singing of larks and thrushes, are distinctly suggestive of spring (the weather, too, was warm and showery, with intervals of bright sunshine); the grasshopper and dragon-fly were characteristic of summer, and there were a few swallows still flying about; the pheasants and the acorns, and the puff-balls, full of minute powder rising in clouds if struck, spoke of autumn; and, finally, the first redwing indicated winter: so that all the seasons were represented together in about the space of a fortnight. I do not know any other period of the year which exhibits so remarkable an assemblage of the representative features of the four quarters: an artist might design an emblematic study upon it, say for a tessellated pavement.

In the early summer the lime trees flower, and are then visited by busy swarms of bees, causing a hum in the air overhead. So, in like manner, on October 16, I passed under an old oak almost hidden by ivy, and paused to listen to the loud hum made by the insects that came to the ivy blossom. They were principally bees, wasps, large black flies, and tiny gnats. Suddenly a wasp attacked one of the largest of the flies, and the two fell down on a bush, where they brought up on a leaf.

The fly was very large, of a square build, and wrestled with its assailant vigorously. But in a few seconds, the wasp, getting the mastery, brought his tail round, and stung the fly twice, thrice, in rapid succession in the abdomen, and then held tight. Almost immediately the fly grew feeble; then the wasp snipped off its proboscis, and next the legs. Then he seized the fly just behind the head, and bit off pieces of the wings; these, the proboscis, and the legs dropped to the ground. The fell purpose of the wasp is not easily described; he stung and snipped and bit and reduced his prey to utter helplessness, without the pause of a second.

So eager was he that while cutting the wings to pieces he fell off the leaf, but clung tight to the fly, and, although it was nearly as big as himself, carried it easily to another leaf. There he rolled the fly round, snipped off the head, which dropped, and devoured the internal part; but slipped again and recovered himself on a third leaf, and as it were picked the remaining small portion. What had been a great insect had almost disappeared in a few minutes.

After the arrival of the fieldfares the days seem to rapidly shorten, till towards the end of December the cocks, reversing their usual practice, crow in the evening, hours before midnight. The cockcrow is usually associated with the dawn, and the change of habit just when the nights are longest is interesting.

Birds have a Feng-shui of their own—an unwritten and occult science of the healthy and unhealthy places of residence—and seem to select localities in accordance with the laws of this magical interpretation of nature. The sparrows, by preference, choose the southern side of a house for their nests. This is very noticeable on old thatched houses, where one slope of the roof happens to face the north and another the south. On the north side the thatch has been known to last thirty years without renewal—it decays so slowly. The moss, however, grows thickly on that side, and if not removed would completely cover it. Moss prefers the shade; and so in the woodlands the meadows on the north or shady side of the copses are often quite overgrown with moss, which is pleasant to walk on, but destroys the herbage. But on the south side of the roof, the rain coming from that quarter, the wind and sun cause the thatch to rapidly deteriorate, so that it requires to be constantly repaired.

Now, instead of working their holes into the northern slope, sheltered from wind and rain, nine out of ten of the sparrows make their nests on the south, and, of course, by pulling out the straw still further assist the decay of the thatch there. The influence of light seems to be traceable in this; and it does occur whether other birds that use trees and bushes for their nests may not really be guided in their selection by some similar rule. The trees and bushes they select to us look much the same as others; but

the birds may none the less have some reasons of their own. And as certain localities, as previously observed, are great favourites with them and others are deserted, possibly Feng-shui may have something to do with that also.

The nomadic tribes that live in tents, and wander over thousands of miles in the East, at first sight seem to roam aimlessly, or to be determined simply by considerations of water and pasture. But those who have lived with and studied them say that, though they have no maps, each tribe, and even each particular family, has its own special route and special camping-ground. Could these routes be mapped out, they would present an interlaced pattern of lines crossing and recrossing without any appreciable order; yet one family never interferes with another family. This statement seems to me to be most interesting if compared with the habits of birds that roam hither and thither apparently without order or method, that come back in the spring to particular places, and depart again after their young are reared. Though to us they wander aimlessly, it is possible that from their point of view they may be following strictly prescribed routes sanctioned by immemorial custom.

And so itinerant labourers move about. In the particular district which has been described their motions are roughly these:—In the early spring they go up on the uplands, where there are many thousand acres of arable land, for the hoeing. Then comes a short space of employment—haymaking in the water-meadows that follow the course of the rivers there, and which are cut very early. Next, they return down into the vale, where the haymaking has then commenced. Just before it begins the Irish arrive in small parties, coming all the way from their native land to gather the high wages paid during the English harvest time. They show a pleasing attachment to the employer who has once given them work and treated them with a little kindness. To him they go first; and thus it often happens that the same band of Irish return to the same farm year after year as regularly as the cuckoo. They lodge in an open shed, making a fire in the corner of the hedge where it is sheltered. They are industrious, work well, drink little, and bear generally a good character.

After the haymaking in the vale is finished, the itinerant families turn towards the lighter soils, where the corn crops are fast ripening, and soon leave the scene of their former labours fifty miles behind them. A few perhaps straggle back in time to assist in the latter part of the corn harvest on the heavy lands, if it has been delayed by the weather. The physicians say that change of air is essential to health: the migration of birds may not be without its effect upon their lives, quite apart from the search for food alone.

The dry walls which sometimes enclose cornfields (built of flat stones) are favourite places with many birds. The yellowhammers often alight on them, so do the finches and larks; for the coarse mortar laid on the top decays and is overgrown with mosses, so that it loses the hard appearance of a wall. When the sparrow who has waited till you are close to him suddenly starts, his wings, beating the air, make a sound like the string of a bow pulled and released—to try it without an arrow.

The dexterous way in which a bird helps itself to thistle-down is interesting to watch. The thistle has no branch on which he can perch; he must take it on the wing. He flies straight to the head of the thistle, stoops as it were, seizes the down, and passes on with it in the bill to the nearest bough—much in the same way as some tribes of horsemen are related to pick up a lance from the ground whilst going at full speed.

Many birds twirl their ‘r’s;’ others lisp, as the nightingale, and instead of ‘sweet’ say ‘thweet, thweet’ The finches call to each other, ‘Kywee, kywee—two—thweet,’ which, whatever may be its true translation, has a peculiarly soothing effect on the ear. Swifts usually fly at a great height, and, being scattered in the atmosphere, do not appear numerous; but sometimes during a stiff gale they descend and concentrate over an open field, there wheeling round and to and fro only just above the grass. Then the ground looks quite black with them as they dart over it: they exhibit no fear, but if you stand in the midst come all round you so close that they might be knocked down with a walking-stick if used quick enough. In the air they do not look large, but when so near as this they are seen to be of considerable size. The appearance of hundreds of these jet black, long-winged birds, flying with marvellous rapidity and threading an inextricable maze almost, as it were, under foot is very striking.

The proverbial present of a white elephant is paralleled in bird life by the gift of the cuckoo’s egg. The bird whose nest is chosen never deserts the strange changeling, but seems to feel feeding the young cuckoo to be a sacred duty, and sees its own young ejected and perishing without apparent concern. My attention was called one spring to a robin’s nest made in a stubble rick; there chanced to be a slight hollow in the side of the tick, and this had been enlarged. A cuckoo laid her egg in the nest, and as it happened to be near some cowsheds it was found and watched. When the young bird began to get fledged some sticks were inserted in the rick so as to form a cage, that it might not escape, and there the cuckoo grew to maturity and to full feather.

All the while the labour undergone by the robins in supplying the wide throat of the cuckoo with food was something incredible. It was only necessary to wait a very few minutes before one or other came, but the voracious creature seemed never satisfied; he was bigger than both his foster-parents put together, and they waited on him like

slaves. It was really distressing to see their unrewarded toil. Now, no argument will ever convince me that the robin or the wagtail, or any other bird in whose nest the cuckoo lays its egg, can ever confound the intruding progeny with its own offspring. Irrespective of size, the plumage is so different; and there is another reason why they must know the two apart: the cuckoo as he grows larger begins to resemble the hawk, of which all birds are well known to feel the greatest terror. They will pursue a cuckoo exactly as they will a hawk.

I will not say that that is because they mistake it for a hawk, for the longer I observe the more I am convinced that birds and animals often act from causes quite distinct from those which at first sight appear sufficient to account for their motions. But about the fact of the lesser birds chasing the cuckoo there is no doubt. Are they endeavouring to drive her away that she may not lay her egg in either of their nests? In any case it is clear that birds do recognise the cuckoo as something distinct from themselves, and therefore I will never believe that the foster-parent for a moment supposes the young cuckoo to be its own offspring.

To our eyes one young robin (meaning out of the nest—on the hedge) is almost identical with another young robin; to our ears the querulous cry of one for food is confusingly like that of another: yet the various parent birds easily distinguish, recognise, and feed their own young. Then to suppose that, with such powers of observation—with the keenness of vision that can detect an insect or a worm moving in the grass from a branch twenty feet or more above it, and detect it while to all appearance engaged in watching your approach—to suppose that the robin does not know that the cuckoo is not of its order is past credit. The robin is much too intelligent. Why, then, does he feed the intruder? There is something here approaching to the sentiment of humanity, as we should call it, towards the fellow-creature.

The cuckoo remained in the cage for some time after it had attained sufficient size to shift for itself, but the robins did not desert it: they clearly understood that while thus confined it had no power of obtaining food and must starve. Unfortunately, a cat at last discovered the cuckoo, which was found on the ground dead but not eaten. The robins came to the spot afterwards—not with food, but as if they missed their charge.

The easy explanation of a blind instinct is not satisfactory to me. On the other hand, the doctrine of heredity hardly explains the facts, because how few birds' ancestors can have had experience in cuckoo-rearing? There is no analogy with the cases of goats and other animals suckling strange species; because in those instances there is the motive—at all events in the beginning—of relief from the painful pressure of the milk. But the robins had no such interested motive: all their interests were to get rid of

their visitor. May we not suppose, then, that what was begun through the operation of hereditary instinct, i.e., the feeding of the cuckoo, while still small and before the young robins had been ejected, was continued from an affection that gradually grew up for the helpless intruder? Higher sentiments than those usually attributed to the birds and beasts of the field may, I think, be traced in some of their actions.

To the number of those birds whose call is more or less apparently ventriloquial the partridge may be added; for when they are assembling in the evening at the roosting-place their calls in the stubble often sound some way to the right or left of the real position of the bird, which presently appears emerging from the turnips ten or fifteen yards farther up than was judged by the ear. It is not really ventriloquial, but caused by the rapid movements and by the circumstance of the bird being out of sight.

We constantly hear that the area of pasture in England is extending, and gradually overlapping arable lands; and the question suggests itself whether this, if it continues, will not have some effect upon bird and animal life by favouring those that like grass lands and diminishing those that prefer the ploughed. On and near ploughed lands modern agriculture endeavours to cut down trees and covers and grub up hedges, not only on account of their shade and the injury done by their roots, but because they are supposed to shelter sparrows and other birds. But pasture and meadow are favourable to hedges, trees, and covers: wherever there is much grass there is generally plenty of wood; and this again—if hedges and small covers extend in a corresponding degree with pasture—may affect bird life.

A young dog may be taught to hunt almost anything. Young pointers will point birds' nests in hedges or trees, and discover them quicker than any lad. If a dog is properly trained, of course this is not allowed; but if not trained, after accompanying boys nesting once or twice they will enter into the search with the greatest eagerness. Labourers occasionally make caps of dog-skin, preserved with the hair on. Cats not uncommonly put a paw into the gins set for rabbits or rats. The sharp teeth break the bone of the leg, but if the cat is found and let out she will often recover—running about on three legs till the injured fore-foot drops off at the joint, when the stump heals up. Foxes are sometimes seen running on three legs and a stump, having met with a similar disaster. Cats contrive to climb some way up the perpendicular sides of wheat ricks after the mice.

The sparrows are the best of gleaners: they leave very little grain in the stubble. The women who go gleaning now make up their bundles in a clumsy way. Now, the old gleaners used to tie up their bundles in a clever manner, doubling the straw in so that it bound itself and enabled them to carry a larger quantity. Even in so trifling a matter

there are two ways of doing it, but the ancient traditional workmanship is dying out. The sheaves of corn, when set up in the field leaning against each other, bear a certain likeness to hands folded in prayer. By the side of cornfields the wild parsnip sometimes grows in great profusion. If dug up for curiosity the root has a strong odour, like the cultivated vegetable, but is small and woody. Everyone who has gathered the beautiful scarlet poppies must have noticed the perfect Maltese cross formed inside the broad petals by the black markings.

Beetles fly in the evening with such carelessness as to strike against people—they come against the face with quite a smart blow. Miserable beetles may sometimes be seen eaten almost hollow within by innumerable parasites. The labourers call those hairy caterpillars which curl in a circle ‘Devil’s rings’—a remnant of the old superstition that attributed everything that looked strange to demoniacal agency.

There is a tendency to variation even in the common buttercup. Not long since I saw one with a double flower; the petals of each were complete and distinct, the two flowers being set back to back on the top of the stalk. The stem of one of the bryonies withers up so completely that the shrinkage, aided by a little wind, snaps it. Then a bunch of red berries may be seen hanging from the lower boughs of a tree—a part of the stem, twined round, remaining there—the berries look as if belonging to the tree itself, the other part of the stem having fallen to the ground.

In clay soils the ivy does not attain any large size; but where there is some admixture of loam, or sand, it flourishes; I have seen ivy whose main stem growing up the side of an oak was five inches in diameter, and had some pretensions to be called timber. The bulrush, which is usually associated with water, does not grow in a great many brooks and ponds; in some districts it is even rare, and it requires a considerable search to find a group of these handsome rushes. Water-lilies are equally absent from certain districts. Elms do not seem to flourish near water; they do not reach any size, and a white, unhealthy-looking sap exudes from the trunk. Water seems, too, to check the growth of ash after it has reached a moderate size. Does the May bloom, which is almost proverbial for its sweetness, occasionally turn sour, as it were, before a thunderstorm? Bushes covered with this flower certainly emit an unpleasant smell sometimes quite distinct from the usual odour of the May.

The hedge is so intensely English and so mixed up in all popular ideas that it is no wonder it forms the basis of many proverbs and sayings—such as, ‘The sun does not shine on both sides of the hedge at once,’ ‘rough as a hedge,’ the verb ‘to hedge,’ and so on. Has any attempt ever been made to cultivate the earth-nut, pig-nut, or ground-nut, as it is variously called, which the ploughboys search for and dig up with their

clasp-knives? It is found by the small slender stalk it sends up, and insignificant white flower, and lies a few inches below the surface: the ploughboys think much of it, and it seems just possible that cultivation might improve it.

Rare birds do not afford much information as a rule—seen for a short time only, it is difficult to discover much about them. I followed one of the rarer woodpeckers one morning for a long time, but notwithstanding all my care and trouble could not learn much of its ways.

Even among cows there are some rudiments of government. Those who tend them say that each cow in a herd has her master (or rather mistress), whom she is obliged to yield precedence to, as in passing through a gateway. If she shows any symptoms of rebellion the other attacks her with her horns until she flies. A strange cow turned in among a herd is at once attacked and beaten till she gets her proper place—finds her level—when she is left in peace. The two cows, however, when they have ascertained which is strongest, become good friends, and frequently lick each other with their rough tongues, which seems to give them much satisfaction.

Dogs running carelessly along beside the road frequently go sideways: one shoulder somewhat in front of the other, which gives the animal the appearance of being ever on the point of altering his course. The longer axis of the body is not parallel to the course he is following. Is this adopted for ease? Because, the moment the dog hears his master whistle, and rushes forward hastily, the sidelong attitude disappears.

Chapter Eighteen.

Snake-Lore—Snakes Swallowing Frogs—Swimming—Fond of Milk—Trapping Snakes—Frogs Climbing—Toads in Trees—The Brook—The Hatch—Kingfishers' Haunts.

There are three kinds of snakes, according to the cottage people—namely, water snakes, grass snakes, and black snakes. The first frequent the brooks, ponds, and withy-beds; the second live in the mounds and hedges, and go out into the grass to find their prey; the third are so distinguished because of a darker colour. The cottage people should know, as they see so many during the summer; but they have simply given the same snake a different name because they notice it in different places. The common snake is, in fact, partial to the water, and takes to it readily. It does, however, seem to be correct that some individuals are of a blacker hue than the rest, and so have been supposed to constitute a distinct kind.

These creatures, like every other, have their favourite localities; and, while you may search whole fields in vain, along one single dry sandy bank you may sometimes find half a dozen, and they haunt the same spot year after year. So soon as the violets push up and open their sweet-scented flowers under the first warm gleams of the spring sunshine, the snake ventures forth from his hole to bask on the south side of the bank. In looking for violets it is not unusual to hear a rustling of the dead leaves that still strew the ground, and to see the pointed tail of a snake being dragged after him under cover.

In February there are sometimes a few days of warm weather (about the last week), and a solitary snake may perhaps chance to crawl forth; but they are not generally visible till later, and, if it be a cold spring, remain torpid till the wind changes. When the hedges have grown green, and the sun, rising higher in the sky, raises the temperature, even though clouds be passing over, the snakes appear regularly, but even then not till the sun has been up some hours. Later on they may occasionally be found coiled up in a circle two together on the bank.

In the summer some of them appear of great thickness—almost as big round as the wrist. These are the females, and are about to deposit their eggs. They may usually be noticed close to cow-yards. The cattle in summer graze in the fields and the sheds are empty; but there are large manure-heaps overgrown with weeds, and in these the snakes' eggs are left. Rabbits are fond of visiting these cow-yards—many of which are at a distance from the farmstead—and sometimes bring forth a litter there.

When the mowers have laid the tall grass in swathes snakes are often found on them or under them by the haymakers, whose prongs or forks throw the grass about to expose a large surface to the sun. The haymakers kill them without mercy, and numbers thus meet with their fate. They vary very much in size—from eighteen inches to three feet in length. I have seen specimens which could not have been less than four feet long, and as thick as a rake-handle. That would be an exceptional case, but not; altogether rare. The labourers will tell you of much larger snakes, but I never saw one.

There is no subject, indeed, upon which they make such extraordinary statements, evidently believing what they say, as about snakes. A man told me once that he had been pursued by a snake, which rushed after him at such a speed that he could barely escape; the snake not only glided but actually leaped over the ground. Now this must have been pure imagination: he fancied he saw an adder, and fled, and in his terror thought himself pursued. They constantly state that they have seen adders; but I am

confident that no viper exists in this district, nor for some miles round. That they do elsewhere of course is well known, but not here; neither is the slow-worm ever seen.

The belief that snakes can jump—or coil themselves up and spring—is, however, very prevalent. They all tell you that a snake can leap across a ditch. This is not true. A snake, if alarmed, will make for the hedge; and he glides much faster than would be supposed. On reaching the ‘shore’ or edge of the ditch he projects his head over it, and some six or eight inches of the neck, while the rest of the body slides down the slope. If it happens to be a steep-sided ditch he often loses his balance and rolls to the bottom; and that is what has been mistaken for leaping. As he rises up the mound he follows a zigzag course, and presently enters some small hole or a cavity in a decaying stole. After creeping in some distance he often meets with an obstruction, and has to remain half in and half out till he can force his way. He usually takes possession of a mouse-hole, and does not seem to be able to enlarge it for additional convenience. If you put your stick on his head as he slips through the grass his body rolls and twists, and almost ties itself in a knot.

I have never been able to find a snake in the actual process of divesting his body of the old skin, but have several times disturbed them from a bunch of grass and found the slough in it. There was an old wall, very low and somewhat ruinous, much overgrown with barley-like grasses, where I found a slough several times in succession, as if it had been a favourite resort for the purpose. The slough is a pale colour—there is no trace on it of the snake’s natural hue, and it has when fresh an appearance as if varnished—meaning not the brown colour of varnish, but the smoothness. A thin transparent film represents the eyes, so that the country folk say the snake skins his own eyes.

A forked stick is the best thing to catch a snake with: the fork pins the head to the ground without doing any injury. If held up by the tail—that is the way the country lads carry them—the snake will not let its head hang down, but holds it up as far as possible: he does not, however, seem able to crawl up himself, so to say; he is helpless in that position. If he is allowed to touch the arm he immediately coils round it. A snake is sometimes found on the roofs of cottages. The roof in such cases is low, and connected by a mass of ivy with the ground, overgrown too with moss and weeds.

The mowers, who sleep a good deal under the hedges, have a tradition that a snake will sometimes crawl down a man’s throat if he sleeps on the ground with his mouth open. There is also a superstition among the haymakers of snakes having been bred in the stomachs of human beings, from drinking out of ponds or streams frequented by water snakes. Such snakes—green, and in every respect like the field snake—have,

according to them, been vomited by the unfortunate persons afflicted with this strange calamity. It is curious to note in connection with this superstition the ignorance of the real habits of these creatures exhibited by people whose whole lives are spent in the fields and by the hedges.

Now and then a peculiar squealing sound may be heard proceeding from the grass; on looking about it is found to be made by a frog in the extremity of mortal terror. A snake has seized one of his hind legs and has already swallowed a large part of it. The frog struggles and squeals, but it is in vain; the snake, if once he takes hold, will gradually get him down. I have several times released frogs from this horrible position; they hop off apparently unhurt if only the leg has been swallowed. But on one occasion I found a frog quite half gone down the throat of its dread persecutor: I compelled the snake to disgorge it, but the frog died soon afterwards. The frog being a broad creature, wide across the back—at least twice the width of the snake—it appears surprising how the snake can absorb so large a thing.

In the nesting season snakes are the terror of those birds that build in low bushes. I have never seen a snake in a tree (though I have heard of their getting up trees), but I have seen them in hawthorn bushes several feet from the ground, and apparently proceeding along the boughs with ease. I once found one in a bird's nest: the nest was empty—the snake had doubtless had a feast, and was enjoying deglutition. In some places where snakes are numerous, boys when bird's-nesting always give the nest a gentle thrust with a stick first before putting the hand in, lest they should grasp a snake instead of eggs. The snake is also accused of breaking and sucking eggs—some say it is the hard-set eggs he prefers; whether that be so or no, eggs are certainly often found broken and the yolk gone. When the young fledglings fall out of the nest on to the ground they run great risk from snakes.

When sitting in a punt in summer, moored a hundred yards or more from shore, I have often watched a snake swim across the lake, in that place about 300 yards wide. In the distance all that is visible is a small black spot moving steadily over the water. This is the snake's head, which he holds above the surface, and which vibrates a little from side to side with the exertions of the muscular body. As he comes nearer a slight swell undulates on each side, marking his progress. Snakes never seem to venture so far from shore except when it is perfectly calm. The movement of the body is exactly the same as on land—the snake glides over the surface, the bends of its body seeming to act like a screw. They go at a good pace, and with the greatest apparent ease. In walking beside the meadow brooks, not everywhere, but in localities where these reptiles are common, every now and then you may see a snake strike off from the

shore and swim across, twining in and out the stems of the green flags till he reaches the aquatic grass on the mud and disappears among it.

One warm summer's day I sat down on the sward under an oak, and leaned my gun against it, intending to watch the movements of a pair of woodpeckers who had young close by. But the drowsy warmth induced slumber, and on waking—probably after the lapse of some time—I found a snake coiled on the grass under one of my legs. I kept perfectly still, being curious to see what the snake would do. He watched me with his keen eyes as closely as I watched him. So long as there was absolute stillness, he remained; the moment I moved, out shot his forked black tongue, and away he went into the ditch as rapidly as possible.

Some country people say they can ascertain if a hedge is frequented by snakes, by a peculiar smell: it is certain that if one is killed, especially if worried by a dog, there is an unpleasant odour. That they lie torpid during the winter is generally understood; but though I have kept an eye on the grubbing of many hedges for the purpose of observing what was found, I never saw a snake disturbed from his winter sleep. But that may be accounted for by their taking alarm at the jar and vibration of the earth under the strokes of the axe at the tough roots of thorn stoles and ash, and so getting away. Besides which it is likely enough that these particular hedges may not have been favourite localities with them. They are said to eat mice, and to enter dairies sometimes for the milk spilt on the flagstones of the floor. (Note 1.) They may often be found in the furrows in the meadows, which act as surface drains and are damp.

Frogs have some power of climbing. I have found them on the roofs of outhouses which were covered with ivy; they must have got up the ivy. Their toes are, indeed, to a certain degree prehensile, and they can cling with them. They sometimes make a low sound while in the ivy on such roofs; to my ear it sounds like a hoarse 'coo.' Cats occasionally catch frogs by the leg, and torment them, letting the creature go only to seize it again, and finally devouring it. The wretched creature squeals with pain and terror exactly as when caught by a snake.

No surer sign of coming rain than the appearance of the toad on the garden paths is known. Many cottage folk will still tell you that the hundreds and hundreds of tiny frogs which may sometimes be seen quite covering the ground fall from the sky, notwithstanding the fact that they do not appear during the rain, but a short time afterwards. And there are certain places where such crowds of these creatures may be oftener found than elsewhere. I knew one such place; it was a gateway where the clayey soil for some way round the approach had been trampled firm by the horses and cattle. This gateway was close to a slowly running brook, so slow as to be all but

stagnant. Here I have seen legions of them on several occasions, all crowding on the ground worn bare of grass, as if they preferred that to the herbage.

Newts seem to prefer stagnant or nearly stagnant ponds, and are rarely seen in running water. Claypits from whence clay has been dug for brickmaking, and which are now full of water, are often frequented by them, as also by frogs in almost innumerable numbers in spring, when their croaking can be heard fifty yards away when it is still.

Labourers say that sometimes in grubbing out the butt of an old tree—previously sawn down—they have found a toad in a cavity of the solid wood, and look upon it as a great wonder. But such old trees are often hollow at the bottom, and the hollows communicate with the ditch, so that the toad probably had no difficulty of access. The belief in the venom of the toad is still current, and some will tell you that they have had sore places on their hands from having accidentally touched one.

They say, too, that an irritated snake, if it cannot escape, will strike at the hand and bite, though harmless. Snakes will, indeed, twist round a threatening stick; and, as it is evidently a motion induced by anger, the question arises whether they have some power of constriction. If so, it is slight. In summer a few snakes may always be found by the stream that runs through the fields near Wick Farm.

This brook, like many others, in its downward course is checked at irregular intervals by hatches, built for the purpose of forcing water out into the meadows, or up to ponds at some distance from the stream at which the cattle in the sheds drink. Sometimes the water is thus led up to a farmstead; sometimes the farmstead is situate on the very banks of the brook, and the hatch is within a few yards. Besides the moveable hatches, the stream in many places is crossed by bays (formed of piles and clay), which either irrigate adjacent meads or keep the water in ponds at a convenient level.

A lonely moss-grown hatch, which stands in a quiet shady corner not far from the lake, is a favourite resort of the kingfishers. Though these brilliantly coloured birds may often be seen skimming across the surface of the mere, they seem to obtain more food from the brooks and ponds than from the broader expanse of water above. In the brooks they find overhanging branches upon which to perch and watch for their prey, and without which they can do nothing. In the lake the only places where such boughs can be found are the shallow stretches where the bottom is entirely mud, and where the water is almost hidden by weeds. Willows grow there in great quantities, and some of their branches may be available; but then the water is hidden by weeds; and, being muddy at bottom, is not frequented by those shoals of roach the kingfisher delights to

watch. So that the best places to look for this bird are on the streams which feed the mere (especially just where they enter it, for there the fish often assemble) and the streams that issue forth, not far from the main water.

This old hatch—it is so old and rotten that it is a little dangerous to cross it—is situated in the latter position, on the effluent, and is almost hidden among trees and bushes. Several hedges there meet, and form a small cover, in the midst of which flows the dark brook; but do not go near carelessly, for the bank is undermined by the water itself and by the water-rats, while the real edge is concealed by long coarse grasses. These water-rats are for ever endangering the bay: they bore their holes at the side through the bank from above and emerge below the hatch. Out of one such hole the water is now rushing, and if it is not soon stopped will wear away the soil and escape in such quantities as to lower the level behind the hatch. These little beaver-like creatures are not, therefore, welcome near hatches and dams.

If you approach the cover quietly and step over the decayed pole that has been placed to close a gap, by carefully parting the bushes the kingfisher may be seen in his favourite position. The old pole must not be pressed in getting over it, or the willow 'bonds' or withes with which it is fastened to a tree each side of the gap will creak, and the pole itself may crack, and so alarm the bird. The kingfisher perches on the narrow rail that crosses the hatch about two feet above the water.

Another perch to which he removes now and then is formed by a branch, dead and leafless, which projects across a corner of the bubbling pool below. He prefers a rail or a dead branch, because it gives him a clearer view and better facilities for diving and snatching up his prey as it swims underneath him. His azure back and wings and ruddy breast are not equalled in beauty of colour by any bird native to this country. The long pointed beak looks half as long as the whole bird: his shape is somewhat wedge-like, enlarging gradually from the point of the beak backwards. The cock bird has the brightest tints.

In this pool scooped out by the falling water swim roach, perch, and sticklebacks, and sometimes a jack; but the jack usually abides near the edge out of the swirl. Roach are here the kingfisher's most common prey. He chooses those about four inches long by preference, and 'daps' on them the moment they come near enough to the surface. But he will occasionally land a much larger fish, perhaps almost twice the size, and will carry it to some distance, being remarkably powerful on the wing for so small a bird. The fish is held across the beak, but in flying it sometimes seems to be held almost vertically; and if that is really the case, and not an illusion caused by the swiftness of the flight, the bird must carry its head then a little on one side. If he is only

fishing for his own eating, he does not carry his prey farther than a clear place on the bank. A terrace made by the runs of the water-rat is a common table for him, or the path leading to the hatch where it is worn smooth and bare by footsteps. But he prefers to devour his fish either close to the water or in a somewhat open place, and not too near bushes; because while thus on the ground he is not safe. When feeding his young he will carry a fish apparently as long as himself a considerable distance.

One summer I went several days in succession to a hedge two fields distant from the nearest brook, and hid on the mound with a gun. I had not been there long before a kingfisher flew past, keeping just dear of the hedge, but low down and close under the boughs of the trees, and going in a direction which would not lead to a brook or pond. This seemed curious; but presently he came back again, uttering the long whistle which is his peculiar note. About an hour, perhaps less, elapsed when he returned again, this time carrying something in his beak that gleamed white and silvery in the sun—a fish. The next day it was the same, and the next. The kingfisher, or rather two of them, went continually to and fro, and it was astonishing what a number of fish they took. Never more than an hour, often less, elapsed without one or other going by. The fish varied much in size, sometimes being very small.

They had a nest, of course, somewhere; but being under the idea that they always built near brooks or in the high banks often seen at the back of ponds, it was difficult for me to imagine where the nest could be. To all appearance they flew straight through a small opening in another hedge, at the corner of the two in fact, about two hundred yards distant. Presently it occurred to me that this might be an illusion, that the birds did not really pass through the hedge, but had a nest somewhere in that corner.

Just in the very angle was an old disused sawpit, formed by enlarging the ditch, and made some years before for the temporary convenience of sawing up a few heavy 'sticks' of timber that were thrown thereabouts. The sawpit, to prevent accidents to cattle, was roughly covered over with slabs of wood, which practically roofed it in, and of course darkened the interior. It was in this sawpit that the kingfishers had their nest in what appeared to be a hole partly excavated by a rabbit. The distance from the hatch and brook was about 400 yards, so that the parent birds had to carry the fish they captured nearly a quarter of a mile. The sawpit, too, was close to a lane used a good deal, though sheltered by a thick hedge from the observation of those who passed.

In another case I knew of, the kingfishers built in a mound overhanging a small stagnant and muddy pond, in which there were no fish, and which was within twenty

paces of a farmhouse. The house was situate on a hill about three hundred yards from the nearest running stream. This little pond was full in wet weather only, and was constantly used by the horses, the cattle in the field that came almost up to the door, and by the tame ducks. Beside the pond was a wood-pile, and persons were constantly passing it to and fro. Yet the kingfishers built there and reared their young; and this not only for one season, but for several years in succession. They had to bring all the fish they captured up from the brook, over the garden, and to pass close to the house. Why they should choose such a place is not easily explained, seeing that so many apparently more suitable localities were open to them along the course of the stream.

One summer I found a family of four young kingfishers perched in a row on a dead branch crossing a brook which ran for some distance beside a double-mound hedge. There was a hatch just there too, forcing the water into two ponds, one each side of the mound. The brook had worn itself a deep channel, and so required a hatch to bring it up to a level convenient for cattle. I had known for some time that there was a nest in that mound from the continued presence of the two old birds; but could not find it. But when the young could fly a little they appeared on this branch projecting almost over the falling water, and there they took up their station day after day. Every now and then the parents came with small fish, which they caught farther down the brook, for just in that place there were only a few perch and perhaps a tench or two. The colours are much less brilliant on the young birds, and they do not obtain the deep rich hues of their parents until the following spring. I have shot many young birds in the winter; they are by that time much improved in colour, but may be distinguished without difficulty from the full-grown bird.

Though so swift, the kingfisher is comparatively easy to shoot, because he flies as straight as an arrow; and if you can get clear of bushes or willow pollards he may be dropped without trouble. When disturbed the kingfisher almost invariably flies off in one favourite direction; and this habit has often proved fatal to him, because the sportsman knows exactly which way to look, and carries his gun prepared. Wherever the kingfisher's haunt may be, he will be found upon observation to leave it nearly always in the same direction day after day. He is, indeed, a bird with fixed habits, though apparently wandering aimlessly along the streams. I soon found it possible to predict beforehand in which haunt a kingfisher would be discovered at any time.

By noting the places frequented by these birds you know where the shoals of small fish lie, and may supply yourself with bait for larger fish. Often one of those great hawthorn bushes that hang over a brook is a favourite spot. The roots of trees and bushes loosen the soil, and deeper holes are often found under them than elsewhere,

to which the fish resort. These hawthorn bushes, though thick and impenetrable above, are more open below just over the water; and there the kingfisher perches, and has also the advantage of being completely hidden from observation: if he only remained still in such places he would escape notice altogether. When passing such a bush on the *qui vive* for snipe, how many times have I seen a brilliant streak of azure shoot out from the lower branches and watched a kingfisher skim across the meadow, rising with a piping whistle over the distant hedge! Near millponds is a favourite place with these birds.

To that hatch which stands on the effluent brook not far from the mere a coot or two comes now and then at night or in the early morning. These birds, being accused of devouring the young fry, are killed whenever they are met, and their eggs taken in order to prevent their increase; that is, of course, where the water is carefully preserved. Here they are not so persistently hunted. I have seen coots, and moorhens too, venture some distance up the dark arch of a culvert. Moorhens are fond of bridges and frequently feed under them. When alarmed, after diving, the moorhen does not always come right up to the surface, but merely protrudes its head to breathe.

One day I startled a moorhen in a shallow pond; instantly the bird dived, and I watched to see where it would come up, knowing that the moorhen cannot stay long under water, while there chanced to be scarcely any bushes or cover round the edge. After waiting some time, and wondering what had become of the bird, I fancied I saw some duckweed slightly agitated. Looking more carefully, it seemed as if there was something very small moving now and then just there—the spot was not more than fifteen yards distant. It was as if the beak of a bird, the body and most of the head quite hidden and under water, were picking or feeding among the duckweed. This continued for some few minutes, when I shot at the spot, and immediately a moorhen rose to the surface. As the pond was very shallow the bird must have stood on the bottom, and so resumed its feeding with the beak just above the surface.

Note 1. An extraordinary instance of this has been very kindly communicated to me by the writer of the following letter:—

“Kingston Vicarage, Wareham, Dorset, October 27, 1878.

“Dear Sir—*Apropos* of your reference to the notion that snakes drink milk, I think it may interest you to hear of a curious instance of this which occurred near here about three months ago. At Kingswood, the home farm of Kempstone (Mr J.H. Calcraft’s place, near Corfe Castle), the dairyman noticed that something seemed to enter the

dairy through a hole in the wall and take the milk. Thinking it was a mouse or rat, he set a common gin at the hole, and caught a snake every day until he had caught seventeen! Mr Calcraft would corroborate this. My informant is Mr Bankes, rector of Corfe Castle, who heard it from the dairyman himself.

“Faithfully yours,

“S.C. Spencer Smith.”

Chapter Nineteen.

Course of the Brook—The Birds’ Bathing-Place—Roach—Jack on their Journeys—The Stickleback’s Nest—Woodcock—The Lake—Heron—Mussels—Reign of Terror in the Lake.

A place where the bank of the brook has been dug away so as to form a sloping approach to the water, in order that cattle may drink without difficulty, is much visited by birds in summer. Some cartloads of small stones originally thrown down to make a firm floor to the drinking-place have in process of time become worn into sand, which the rain has washed into the water. This has helped to form a more than usually sandy bottom to the water just there. Then a bank of mud, or little eyot in the centre of the stream, thickly overgrown with flags, divides the current in two, and the swiftest section passes by the drinking-place and brings with it more sand washed out from the mud; so that just at the edge there is a floor of fine sand covered with water, which six inches from shore is hardly an inch deep. This is just the bathing-place in which birds delight, and here they come, accordingly, all the summer through, day after day.

Sparrows, starlings, finches (including the beautiful goldfinches), blackbirds, and so on, are constantly to and fro. Often several of different species are bathing together. The wagtails, of course, are there. The wagtail wades into the water and stands there. Sometimes he has the appearance of scraping the bottom with his feet, as if to find food. Blackbirds are especially fond of this spot, and may be seen coming to it from the adjacent hedges. They like water, and frequently feed near it; a blackbird may often be found under the great hawthorn bushes which overhang the stream. Hawks may be seen occasionally following the course of the brook or perched on the trees that grow near; they are doubtless aware of the partiality for water shown by so many birds.

The fish have their own favourite places, as the birds in the hedge, and after leaving the hatch there are none for some distance. Then the brook suddenly curves and

forms a loop, returning almost upon itself something like the letter 12. The tongue of land thus enclosed is broad at the top, and but two or three yards across at the bottom. There the current on either side is for ever endeavouring to eat away the narrow neck, and forms two deep pools. Some few piles have been driven in on one side to check the process of disintegration, and a willow tree overhangs the pool there. By lying on the grass and quietly looking over the brink, the roach may be seen swimming in the deeper part, and where it shallows up stream is a perch waiting for what may come down. Where the water runs slowly on account of a little bay, there, in semi-darkness under the banks on the mud, are a few tench.

There are several jacks not far off; but, though they prey on the roach, it is noticeable that, unless driven by some one passing by, they rarely go into these deep holes. The jack lies in shallower water and keeps close to the shore under shelter of the flags, or concealed behind the weeds. It is as if he understood that every now and then the shoal of roach will pass round the curve—going from one pool to the other—when they have to swim through the shallower water. Sometimes a solitary fish will shift quarters like this, and must go by the jack lying in ambush.

At the top of the tongue of land (which is planted with withy) another brook joins the first: this brook is very deep, and all but stagnant. In the quiet back-water here—close to and yet out of the swifter stream—is another haunt of the jack.

If alarmed, he does not swim straight up or down the centre of the current but darts half-a-dozen yards in a slanting direction across the stream and hides under another floating weed. Then, if started afresh, he makes another zigzag, and conceals himself once more. At first he remains till you could touch him, if you tried, with a long stick; but at every remove he grows more suspicious, till at last as you approach he is off immediately.

Jacks lie a great deal in the still deep ponds that open off the brook or are connected with it by a deep ditch; they have been known to find their way up to a pond from the brook through a subterranean pipe which supplied it with water. Those that remain in the ponds are usually much larger than those found in the stream: these are often small—say, a pound to two pounds in weight. In the spawning season, however, they come out from the ponds and go up the brook in pairs or trios. They keep close together side by side—the largest in the centre when there are three. The brook at that time seems full of jacks; and to any one who has been accustomed to stroll along it is surprising where they all come from.

Although the jacks lie in the quiet ponds most of the time, yet some of them travel about a great deal, especially the smaller ones ranging from one to two pounds. These

will leap a bay or dam if it interrupts their voyaging down the stream. I have seen a young jack, about a foot long, leap over a bay, and fall three or four feet on to the stony floor below, the stones scarcely covered with water. The jack shot himself perhaps two feet, and fell on his side on the stones; there he lay quietly a minute or so, and then gave a bound up, and, lighting in the current, went down with it. A small jack like this will sometimes go out into the irrigated meadows, following the water-carriers for a long distance.

In quiet, sheltered places, where the water is clear but does not run too swiftly, the 'minnie,' as the stickleback is locally called, makes its nest beside the bank. A small hole in the sand is excavated, and in this are laid a number of tiny fibres such as are carried along by the stream, resembling a miniature faggot. On these fibres the ova are deposited, and they are then either purposely partly covered with sand by the minnie, or else the particles that are brought down by the current gather over the bundle of fibres and conceal it, excepting one small spot. There several of the slender roots seem to slightly project, and they are kept clear of mud or sand so as to answer the purpose of a doorway. I have watched these operations many times, but never saw the minnie attempt to enter the nest; indeed, he could not have done, so, the opening not being large enough.

When the nest has reached this stage of completion it is easy to discover, because the stickleback keeps watch before it, and at that season his breast is of a bright crimson hue. He guards the nest with the greatest care, and if he is tempted away for a minute by some morsel of food he is back again immediately. If a tiny twig or fibre comes along and threatens to catch against the nest, he removes it in his mouth, carrying it out into the stream that it may be swept away. He also removes the sand whenever it begins to accumulate overmuch. It would seem as if a current of fresh water were essential to the ova, and that that is why the opening of the nest is so carefully kept from becoming choked up. After a while the fry come forth—the most minute creatures imaginable, mere lines about half the length of the fingernail. They play round the opening, and will retreat within if alarmed.

Where the brook passes under a bridge of some size the current divides to go through several small arches. There is here some fall, and the stream is swift and bright, chafing round and bubbling over stones. Here the 'miller's thumbs' are numerous—a bottom fish growing to about four inches in length, and with a head enormously broad and large in proportion to its body. They rarely rise from the mud or sand; they hide behind stones, their heads buried in the sand, but their tails in sight. Every now and then they change positions, swimming swiftly over the bottom to another spot. Their

voracity is very great, and they often disappoint the angler by taking his bait. The cottage people are said to eat them.

The 'stwon loach'—stone loach, as the lads call it—hides also behind and under stones, and may be caught by hand. These loach are apparently capricious in their habits; certain spots abound with them, in others you may search the stream in vain for a long distance. So, too, with the gudgeon: I noticed in one brook I frequently passed that they never came up beyond one particular bend, though there was no apparent difference in the soil or in the stream itself. In the brook the jack do not seem to care much about them; but in the lake above there are no gudgeon, and there a gudgeon is a fatal bait. Nothing is so certain to take; the gudgeon will tempt the pike there when an ordinary roach may be displayed before him without the slightest effect.

A flood which brings down a large quantity of suspended mud and sand discolouring the water attracts the fish: they are looking for food. But too much mud compels them to shift their quarters. This is well known to those who net the stream. They stretch the net across the brook a few yards below a bridge or short culvert—places much haunted by fish. Then the bottom of the stream above the culvert is thoroughly stirred up with a pole till the water is thick with mud, and this, passing through the culvert (where the pole cannot be used and the fish would otherwise be safe), forces them to descend the stream and enter the net. Probably they attempt to swim up stream first, but are deterred by the pole thrust under the water, and then go down. It is said that even eels, who like mud, will move if the volume of mud sent through is thick enough and continued sufficiently long.

The fact that a little stirring of the bottom attracts fish is made use of along the Thames to attract bait for those night-lines which are the detestation of the true angler. The bait catcher has a long pole, at the end of which are iron teeth like a rake. With this he rakes up the mud, waits a few seconds, and then casts a net, which generally brings some minnows or other small fish to shore. These fish are then placed in a bucket, and finally go on the night-lines.

The ditches as they open on the brook are the favourite resorts of all aquatic life, and there most of the insects, beetles, etc, that live in the water may be discovered. They form, too, one of the last resorts of the reeds; these beautiful plants have been much diminished in quantity by the progress of agriculture. One or two great mounds by the brook can show a small bed still, and here and there a group grows at the mouth of these deep ditches, on the little delta formed of the sand, mud, and decaying twigs brought down. I have cut them fifteen feet in length. Some people, attracted by the

beauty of the feathery heads of these reeds, come a considerable distance to get them. I have made pens of them: it is possible to write with such pens, and they are softer than quills, but on account of that softness quickly wear out.

A woodcock may occasionally be flushed from such a ditch in winter. Woodcocks are fond of those ditches down which there always trickles a tiny thread of water—hardly so much as would be understood by the term streamlet—coming from a little spring which even in severe frosts is never frozen. Ever when the running brook is frozen such little spring: are free of ice, and so, too, is the streamlet for some distance.

From the bed of the brook proper the reeds are gone—they have taken refuge in nooks and corners. This is probably accounted for by the periodical cleaning out of the brook—not annually, but every now and then, in order to prevent the flooding which would be caused by the accumulation of mud and sand. The roots of the flags seem to withstand this rod: treatment; but many other water plants cannot, and are consequently only found in places which have not been disturbed for many years.

There is as much difference in ponds as in hedges, so far as inhabitants are concerned. Many fields and hedges seem comparatively deserted, while others are full of birds; and so of several ponds which do not apparently vary much—one is a favourite haunt of fish, and another has not got a single fish in it. One pond particularly used to attract my attention, because it seemed devoid of any kind of life: not even a stickleback could be found in it, though they will live in the smallest ditches, and this pond was fed by a brook in which there were fish. Not even a newt lived in it—it was a miniature Dead Sea. Another pond was remarkable for innumerable water-snails. When the wind blew hard they sometimes lined the lee shore to which they had drifted.

The herons are at the same time the largest and most regular visitors to the mere out of which the brook flows. One or more may generally be found there at some time of the day all the year round; but there is a remarkable diminution in their numbers during the nesting season. The nearest heronry must be about thirty miles distant, which probably explains their absence at that time. It also happens that just before the summer begins the mere is usually at its greatest height; the water is deep almost everywhere, and there are fewer places where the herons could fish with success.

They fly at a great height in the air, and a single stroke of the huge wings seems to propel the bird a long distance; so that though at first sight they appear to move very slowly, the eye being deceived by the slow stroke of the wings, they really go at a good pace. They do not seem to have any regular hours of visiting the lake—though more seem to arrive in the afternoon—but they have distinct lines of flight along which they

may be expected to come. In winter, however, they show more regularity, going down from the lake to the water-meadows in the evening, and returning in the early morning—that is, supposing the lake to be open and free from ice. If the shores are frozen a heron or two may be found in the water-meadows all day.

In the autumn, after a dry summer, is the best time to watch them. The water is then low; numerous small islands appear, and long narrow sandbanks run out fifty or sixty yards with shoals on either side. After a very dry season the level of the water is so much reduced that in the broadest (and shallowest) part the actual strand where the water begins is a hundred yards or more from the nearest hedge. This is just what the heron likes, because no one can approach him over that flat expanse of dried mud without being immediately detected. I have seen as many as eight herons standing together in a row on one such narrow sandbank in the daytime, in regular order like soldiers: there were six more on adjacent islands. They were not feeding—simply standing motionless. As soon as it grew dark they dispersed, and ventured then down the lake to those places near which footpaths passed.

But although the night seems the heron's principal feeding time, he frequently fishes in the day. Generally, his long neck enables him to see danger, but not always. Several times I have come right on a heron, when the banks of the brook were high and the bushes thick, before he has seen me, so as to be for the moment within five yards. His clumsy terror is quite ludicrous: try how he will he cannot fly fast at starting; he requires fifty yards to get properly underway.

What a contrast with the swift snipe, that darts off at thirty miles an hour from under your feet! The long hanging legs, the stretched-out neck, the wide wings and body, seem to offer a mark which no one could possibly miss: yet, with an ordinary gun and snipe-shot, I have had a heron get away safely like this more than once. You can hear the shot rattle up against him, and he utters a strange, harsh, screeching 'quaack,' and works his wings in mortal fright, but presently gets half-way up to the clouds and sails away in calm security. His neck then seems to drop down in a bend, the head being brought back as he settles to his flight, so that the country people say the heron often carries a snake.

The mark he offers to shot is much less than would be supposed; he is all length and no breadth; the body is very much smaller than it looks. But if you can stalk him in the brook till within thirty or forty yards, and can draw 'a bead' on his head as he lifts it up every now and then to glance over the banks, then you have him easily; a very small knock in the head being sufficient to stop him.

The tenacity of life exhibited by the heron is something wonderful: though shot in the head, and hung up as dead, a heron will sometimes raise his neck several hours afterwards. To wring the neck is impossible—it is like leather or a strong spiral spring: you cannot break it, so that the only way to put the creature out of pain is to cut the artery; and even then there are signs of muscular contraction for some time. A labourer once asked me for a heron that I had shot; I gave it to him, and he cooked it. He said he boiled it eight hours, and that it was not so very fishy! But even he could not manage the neck part.

This bird must have a wonderful power of sight to catch its prey at night, and out of some depth of water. In severe winter weather, when the lake is frozen, herons evidently suffer much. Most of them leave, probably for the rivers which do not freeze till the last; but one or two linger about the water-meadows till they seem to despair of catching anything; and will alight in the centre of a large pasture field where there is no water, and stand there for hours disconsolate. I suspect that the herons in winter time that come to the ponds do so for the fish which lie at the bottom on the mud packed close together, that is, when the water is not deep. It is said that when ice protects the fish herons eat the frogs in the water-meadows; but they can scarcely find many, for though I have been over the water-meadows day after day for snipe, I seldom saw a frog about them here.

When the level of the mere, after a peculiarly dry season, is very low, is also a good time to observe the habits of many other creatures. There are always one or more crows about the neighbourhood of the lake; but at such times a dozen or so may be seen busily at work along the shore. They prey on the mussels, of which there are great numbers in the lake. Anyone passing by the water when it is so shallow can hardly fail to notice long narrow grooves in the sand of the bottom. These grooves begin near the edge—perhaps within a foot of it—and then run out into the deeper part. By following these with the eye, the mussel may often be seen in a foot or two of water—sometimes open, but more generally closed. The groove in the sand is caused by the keel of the shell as the creature moves.

There are hundreds of these tracks; the majority appear to run from shallow to deep water, but there are others crossing and showing where the mussel has travelled. One may occasionally be seen in the act of moving itself, and making the groove in the sand. But they seem as a rule to move most at night, and to approach the shore closest in the darkness. In the deep water they are safe; but near the edge the crows pounce on them and may be seen peering about almost all day long.

Besides those that are eaten on the shore, numbers of mussels are carried up on the rising ground where the turf is short and the earth hard. Until stepped on and broken, the two halves of the shell are usually complete, and generally still attached, showing that the crow has split the shell open skilfully. They range from two or three to nine inches in length. The largest are much less common; those of five or six inches are numerous. Some of the old-fashioned housewives use a nine-inch mussel-shell, well cleaned, as a ladle for their sugar jars.

Now and then, at long intervals, an exceptionally dry season so lowers the level of the mere that all the shallower parts become land, and are even passable on foot, though in places quicksands and deep fine mud must be carefully avoided. The fish that previously could enjoy a swim of some three-quarters of a mile are then forced to retire to one deep hole only a few acres in extent. Now commences a reign of terror, of which it is difficult to convey an adequate idea.

These waters have not been netted for years, and consequently both pike and perch have increased to an extraordinary degree, and many of them have attained huge proportions. Pike of six pounds are commonly caught; eight, ten, twelve, and fourteen pound fish have often been landed. There was a tradition of a pike that weighed a quarter of a hundredweight but one day the tradition was put into the shade by the capture of a pike that scaled a little over thirty pounds. There are supposed to be several more such monsters of the deep, since every now and then some labourer passing by on a sunny day, when jack approach the shore and bask near the surface, declares that he has seen one as big as a man's leg. But about the vast number of ordinary-sized jack there can be no doubt at all; since anyone may see them who will stroll by the water's edge on a bright warm day, taking care to walk slowly and not to jar the ground or let his shadow fall on the water before he can glance round the willows and bushes. Jack may then be seen basking by the weeds.

When an exceptionally long continuance of dry weather forces all the fish to retire to the few acres of water that remain, then these voracious brutes do as they please with the other fish, and the roach especially suffer. Every two or three minutes the fry may be seen leaping into the air in the effort to escape, twenty or thirty at a time, and falling with a splash. The rush of hundreds and hundreds of roach causes a wave upon the surface which shows the course they take. This wave never ceases: as soon as it sinks here it rises yonder, and so on through the twenty-four hours, day and night.

The miserable fish, flying for their lives, speed towards the shallow water, and often, unable to stop themselves, are carried by their impetus out on the mud and lie there on the land for a few seconds till they leap back again. Even the jack will sometimes

run himself aground in the eagerness of his pursuit. Looking over the pool, the splash of the falling fish as they descend after the leap into the air may be heard in several directions at once, and the glint of their silvery sides in the sunshine is at the same time visible. At night it is clear the same thing is going forward, for the splashing continues, though the wave raised by the panic-stricken crowds cannot be distinguished in the darkness.

It is curious to notice how the solitary disposition of the jack shows itself almost as soon as he comes to life. While the fry of most other fish swim in shoals, sometimes in countless numbers, the tiny jack, hardly so long as one's little finger, lurks all alone behind a stone which forms a miniature harbour. On a warm day almost every such place has its youthful pirate. Notwithstanding the terror of the roach when pursued, they will play about apparently without the slightest fear when the pike is basking in the sun with his back all but on a level with the surface—that is, when the lake is at its ordinary height. It is as if they knew their tyrant was enjoying his siesta.

These roach literally swarm. At their spawning time that part of the lake the shore of which is stony is positively black with them. For a distance of some hundred and fifty yards the water for seven or eight feet from shore is simply a moving mass of roach. They crowd up against the stones, get underneath them and behind them, enter every little creek and interstice, and are so jammed by their own numbers that they may easily be caught by hand. In their anxiety to secure a place they crush against each other and splash up the water. This impulse only lasts a day or two in its full vigour, when the multitude gradually retires into deeper water.

When thus spawning the roach are preyed on by rats—not the water-rat, but the house or drain rat. There are always a few of these about the lake, and they grow to an enormous size. They destroy the roach in great numbers. I have seen the sand strewn with dead fish opposite and leading up to their holes; for they catch and kill many more than they can eat, or even have time to carry away. I have shot at these great rascals when they have been swimming fifty yards from shore, and I strongly suspect them of visiting the nests of moorhens and other waterfowl with felonious purposes. They catch fish at any time they see a chance, but are most destructive during the spawning season, because then the roach come within reach. Such rats, too, haunt the ditches and mounds, and are as dangerous to all kinds of game as any weasel, crow, or hawk.

Tench lie in the deep muddy holes. With the exception of the tench, the greater number of the fish in this mere haunt the sandy and stony shores. When the lake is full there are broad stretches of water which are shallow and where the bottom is mud.

You may look here in vain for fish: of course there are some; but as you glide over noiselessly in a punt, gazing down into the water as you drift before the gentle summer breeze, you will not see any of those shoals that frequent the other shores where the bottom is clearer. Other favourite places are where the brooks run in and where there are sudden shallows in the midst of deep water. The contour and character of the bottom seem to affect the habits of fish to a large extent; consequently those who are aware of the form of the bottom are usually much more successful as fishermen.

Chapter Twenty.

Wildfowl of the Lake—Sea Birds—Drift Wood—Forces of Nature at Work—Waves—Evaporation—An Eagle—Frost and Snow—Effect on Birds and Animals—Water-Meadows—Shooting Stars—Phosphorescence—Waterspout—Noises ‘in the Air.’

The ‘summer snipe,’ or sandpiper, comes to the lake regularly year after year, and remains during the warm months. About a dozen visit the shallow sandy reaches running along the edge of the water, when disturbed flying off just above the surface with a plaintive piping cry. They describe a semicircle, and come back to the shore a hundred yards farther on; and will do this as many times as you like to put them up. Sometimes they feed in little parties of two or three: sometimes alone. No other place for some distance is visited by the sandpiper: none of the ponds, or brooks; only the lake.

In summer but a few species of birds remain on this piece of water. Only two or three wild ducks stay to breed: their nests are not found on the mere itself, but in the ponds adjacent. One small pond fed by the lake and communicating with it—dug where the muddy shore would otherwise prevent cattle approaching the shallow water—a quiet spot almost surrounded by bushes, is a favourite nesting-place. The brooks that run in are occasionally used by ducks in the same way, and one of the large ditches which is full of flags and rushes and well sheltered is now and then selected. But the ducks do not breed in any number, though they used to do so within living memory.

The coots cannot be overlooked in spring; they chase each other to and fro over the surface in the liveliest manner, and their nests are common. Moorhens, of course, are here in numbers. Why is it that they never seem to learn wisdom in placing their nests? Whether in the lake, in the ponds, or brooks, they exhibit the same lack of foresight as to changes of level in the water; so that frequently their nests are quite drowned out. Occasionally in the brooks the nest is floated bodily down the stream by

a sudden rise. These mishaps they might easily avoid by placing them a little higher up the bank.

In the lake there are several acres of withy bushes which when the water is low are on dry land, but in spring and early summer stand five or six feet deep. This is a favourite nesting-place with the coots: and they show the same neglect of the teachings of experience; for their nests are placed almost on the water, and if it rises, as it often does, they are flooded.

It is said that otters used to come to the mere many years ago; but they have never done so lately, though stories of their having been seen are frequent. One summer the story was so positive and so often repeated that I made a thorough search, and found that it originated in the motions of a large diving bird. This bird swam under water with wonderful rapidity, and often close to the surface, so that it raised a wave and could be traced by it. This was the supposed otter. The bird was afterwards shot, but its exact species does not seem to have been satisfactorily ascertained. Several kinds of divers, however, have without doubt been killed. Grebes are often shot.

Occasionally sea birds come—particularly a species locally called the ‘sea-swallow,’ which frequently appears after rough winds and remains flying about over the water for a week or more. Six or eight of these are sometimes seen at once. The common gull comes at irregular intervals, generally in the winter or spring; it is said to foretell rough weather. Occasionally a gull will stay some time, and I have seen them also in the water-meadows. Considering the distance from the sea, the gull cannot be called an uncommon bird here.

Towards winter the wild ducks return; and during all the cold months a flock of them, varying in number, remains. They are careful to swim during the day in the centre of the very widest part of the lake, far out of gunshot; at night they land, or feed along the shore. Teal, and sometimes widgeon also, visit the place. Once now and then wildfowl come in countless numbers: it is said to be when they are driven south by severe weather. On one occasion I saw the lake literally black—they almost covered it for a length of half a mile and a breadth of about a quarter. It was a sight not to be quickly forgotten; and the noise of their wings as vast parties every now and then rose and wheeled around was something astonishing. They only stayed a few days.

How many times I have endeavoured to trace the V said to be formed by duck while flying, and failed to detect it! They fly, it is true, in some sort of order, but those that come to the mere here travel rather in a row, or line, slanting forwards, something like what military men call in echelon. The teal seem much bolder than the wild duck: they are often shot as they rise out of the brooks; but the ducks very rarely go to the brooks

at all, and can still more rarely be approached when they do. They swim in the water-carriers in the great irrigated meadows, but are careful to remain far out of range; so that the only way to shoot them by day is for two or more sportsmen to post themselves behind the hedges in different places while a third drives them up.

The first snipes are seen generally in the arable lands, afterwards round the lake—the muddy shores by choice—and finally in the brooks. As the winter advances they seem to quit the lake in great part and go down to the brooks. A streamlet that runs through a peaty field is a favourite spot. The little jack-snipe frequent the water-carriers in the irrigated meadows and the wet furrows. When the lake is frozen over the wild duck stand on the ice in the daytime for hours together, leaving the marks of their feet on it.

In walking along the shore lines of drift may be noticed, marking the height to which the waves driven by the wind have carried the floating twigs, weeds, and leaves: just as along the sea the beach is formed into terraces by the changing height of the tides. The shallower parts of the lake are so thickly grown in summer with aquatic weeds that a boat can only be forced through them with the utmost difficulty. Some of these grow in as much as eight or even ten feet of water. On the shore, where it is marshy, the mare's-tail flourishes over some acres: there is often a slight marshy odour here, which increases as the foot presses the yielding mud.

When the water is low in autumn these are mown, and, with the aquatic grasses at the edge and the rushes, made into the roughest kind of hay imaginable. The coarser parts are used as litter; the best is mixed with fodder and eaten by cattle. Many waggon-loads are thus taken away, but as many more remain; and in walking over the spongy ground a smart 'pop' is continually heard: it is caused by the sudden compression of air under the foot in the mare's-tails lying about; for their stems are hollow, and have knots at regular intervals.

After a continuance of the wind in one quarter for a few days—south or south-west—the opposite shores are lined with such weeds carried across, together with great quantities of dead branches fallen from the trees and willows. So that on a small scale the same thing happens as with the drift wood of the ocean; and, indeed, by studying the action of natural forces as exhibited in our own pools and brooks, it becomes much easier to comprehend the gigantic operations by which the surface of the earth is altered.

For instance, the north-eastern edge of the water is continually encroaching on the land, eating away the sandy soil, showing that the prevalent winds are south and west. The waves, thrown against the shore with the force they have acquired in rolling six or seven hundred yards, wash away the earth and undermine the bank, forming a

miniature cliff or precipice, the face of which is always concave, projecting a little at the foot and also at the top. So much is this the case that an unwary person walking too near the edge may feel the sward suddenly yield and find it necessary to scramble off before a few hundredweights of earth subside into the water.

In this process the loamy part of the earth is dissipated, or rather held in suspension, while the small stones and ultimately the heavier sand fall to the bottom and form the sandy floor preferred by the fish. The loam discolours the water during a storm for several yards out to sea, so to say; so that in a boat passing by you know by the hue of the waves when you are approaching the dangers of the cliffs. This continuous eating away of the earth proceeds so fast that an old hollow oak tree now stands—at what may be called the high tide of summer—so far from the strand that a boat may pass between.

Like a wooden island the old oak rears itself up in the midst; the waves break against it, and when there is but a ripple the sunlight glancing on the water is reflected back, and plays upon the rugged trunk, illuminating it with a moving design as the wavelets roll in. The water is so shallow at the edge that the shadows of the ridges of the waves follow each other over the sandy floor. They reflect the bright rays upon the tree trunk, where they weave a beautiful lacelike pattern—beneath, their own shadows glide along the sand. That sand, too, is arranged by the ripple in slightly curved lines. These wave-marks, though so slight that with the hand you may level fifty at a sweep, have yet sometimes proved durable enough to tell the student after many centuries where water once has been. Under the foundations of some of the oldest churches—the monks loved to build near water—the wave-mark has been found on the original soil.

In a hollow of the old oak starlings have made their nest and reared their young in safety for several seasons. They seem to understand that the water gives them protection, for their nest would not be out of reach were the tree on land.

Just as at the seashore the wave curls over in an arch as it comes in before dissolving in surf and spray, so here when a gale is blowing, these lesser waves, as they reach the shelving strand, also curl over. In the early morning, as the sun begins to acquire some strength, the white mists sweep over the surface and visibly melt and disappear. One hot summer, when the lake was full, and kept so artificially by the hatches and dams, I found by observation that its level sank nearly half an inch every day. This was the more striking because there was at the same time an influx more than enough to repair the loss from leakage. Now the evaporation of half an inch of water over such a width of surface meant the ascension into the atmosphere of many thousands of

gallons; and thus even this insignificant pool might form a cloud of some magnitude in a few days. What immense vapours may then arise from the surface of the ocean!

Sometimes a winter's morning is, I think, almost as beautiful as summer, when the ice is thick with the sharp frost, and the sun shines in a blue sky free from clouds. One such morning, while putting on my skates, I happened to look up, and was surprised to see a bird of unusual appearance, and large size, soaring slowly overhead. I immediately recognised an eagle; and that was the solitary occasion on which I ever saw one here. The bird remained in sight some time, and finally left, going south-east towards the sun.

On the afternoon of the day before the beginning of the frost the wind gradually sinks, and the dead leaves which have been blown to and fro settle in corners and sheltered places. As the sun sets all is still, and there is a sense of freshness in the air. Then the logs of wood thrown on the fire burn bright and clear—the surface of a burning log breaks up into small irregular squares; and the old folk shake their heads and say, 'It will freeze.' As the evening advances the hoofs of horses passing by on the road give out a sharp sound—a sign that the mud is rapidly hardening. The grass crunches under foot, and in the morning the elms are white with rime; icicles hang from the thatch, and the ponds are frozen.

But there is nothing so uncertain as frost: it may thaw, and even rain, within a few hours; and, on the other hand, even after raining in the afternoon, it may clear up about midnight, and next morning the ice will be a quarter of an inch thick. Sometimes it will begin in so faint-hearted a fashion that the ground in the centre of the fields is still soft, and will 'poach' under the hoofs of cattle, while by the hedge it is hard. But by slow degrees the cold increases, and ice begins to form. Again, it will freeze for a week and yet you will find very little ice, because all the while there has been a rough wind, and the waves on the lake cannot freeze while in motion. So that a long frost is extremely difficult to foresee.

But it comes at last. Two really sharp frosts will cause ice thick enough to bear a lad at the edge of the lake; three will bear a man a few yards out; four, and it is safe to cross: in a week the ice is between three and four inches thick, and would carry a waggon. The character of ice varies: if some sleet has been falling—or snow, which facilitates freezing—it is thick in colour; if the wind was still it is dark, sleek, perfectly transparent. It varies, however, in different places, in some having a faint yellowish hue. There are always several places where the ice does not freeze till the last—breathing-holes in which the ducks swim; and where a brook enters it is never quite safe.

The snipes come now to the brook and water-meadows. Following the course of the stream, fieldfares and redwings rise in numbers from every hawthorn bush, where they have been feeding on the peggles. Blackbirds start out from under the bushes, where there is perhaps a little moist earth still. The foam where there is a slight fall is frozen, and the current runs under a roof of ice; the white bubbles travel along beneath it. The moorhens cannot get at the water; neither can the herons or kingfishers. The latter suffer greatly, and a fortnight of such severe weather is fatal to them.

I recollect walking by a brook like this, and seeing the blue plumage of a kingfisher perched on a bush. I swung my gun round ready to shoot as soon as he should fly, but the bird sat still and took no notice of my approach. Astonished at this—for the kingfisher sat in such a position as easily to see anyone coming; and these birds generally start immediately they perceive a person—I walked swiftly up opposite the bush. The bird remained on the bough. I put out the barrel of my gun and touched his ruddy breast with the muzzle: he fell on the ice below. He had been frozen on his perch during the night, and probably died more from starvation than from cold, since it was impossible for him to get at any fish.

More than once afterwards the same winter I found kingfishers dead on the ice under bushes, lying on their backs with their contracted claws uppermost, having fallen dead from roost. Possibly the one found on the branch may have been partly supported by some small twig.

That winter snow afterwards fell and became a few inches thick, drifting in places to several feet. Then it was the turn of the other birds and animals to feel the pain of starvation. In the meadows the tracks of rabbits crossed and recrossed till the idea of following their course had to be abandoned. At first sight it seemed as if the snow had suddenly revealed the presence of a legion of rabbits where previously no one had suspected the existence of more than a dozen. But in fact a couple of rabbits only will so run to and fro on the snow as to cover a meadow with the imprints of their feet—looking everywhere for a green blade.

Yet they only occasionally scratch away the snow, and so get at the grass. Though the natural instinct of rabbits is to dig, and though here and there a place may be seen where they appear to have searched for a favourite morsel, yet they do not seem to acquire the sense of systematically clearing snow away. They then bark ash—and, indeed, nearly any young sapling or tree—and visit gardens in the night, as the hares do also. They creep about along the mounds, being driven by hunger to search for food all day instead of remaining part of the time in the buries.

As to the hares, little more than a week of deep snow cripples their strength: they will run but twenty or thirty yards, and may be killed occasionally with a stick or captured alive. They are even more helpless than rabbits, because the latter still have holes to take refuge in from danger; but the hare while the snow lasts is a wretched creature, and knows not where to turn. Birds resort to the cattle-sheds, to roost; among them the blackbirds, who usually roost in the hedges. Birds come to the houses and gardens in numbers because the snow is there cleared away along the paths.

During severe weather the water-meadows are the most frequented places. They are rarely altogether frozen. If in the early morning there are sheets of ice, by noonday a great part will be flooded an inch or two deep, the water rising over the ice, and forced by it to spread farther, softening the ground at the sides. The water-carriers are long before they freeze. Thrushes and blackbirds come to the hedges surrounding these meadows; the fieldfares and redwings are there by hundreds, and fly up to the trees if alarmed.

The old folks say that the irrigated meadows (and other open waters) do not freeze in the evening till the moon rises; a bright clear moon is credited with causing the water to 'catch'—that is, the slender, thread-like spicules form on the surface, and, joining together, finally cover it. It is, of course, because the water-meadows are long before altogether frozen that the duck and teal come down to them. When the brooks are frozen is almost the only time when the dabchick can be got to rise: at other times this bird will dive and redive, and double about in the water, and rather be caught by the spaniels than take wing. But when the ice prevents this they will fly. Wood-pigeons go to the few places that remain moist, and also frequent the hawthorn bushes with the fieldfares. They seem fond of trees that are overgrown with ivy, probably for the berries.

The fish are supposed to go down upon the mud; but the jacks certainly do the reverse: they may be seen lying just beneath the ice, and apparently touching it with their backs. They seem partly torpid. In open winters, such as we have had of recent years, the hedge fruit remains comparatively untouched by birds: from which it would appear that it is not altogether a favourite food.

The country folk, who are much about at night and naturally pay great heed to the weather, are persuaded that on rainy nights more shooting stars are seen than when it is bright and clear. The kind of weather they mean is when scudding clouds with frequent breaks pass over, now obscuring and now leaving part of the sky visible, and with occasional showers. These shooting stars, they say, are but just above the clouds, and are mere streaks of light: by which they mean to convey that they have no

apparent nucleus and are different from the great meteors which are sometimes seen.

I have myself been often much interested in the remarkable difference of the degree of darkness when there has been no moon. There are nights when, although the sky be clear of visible cloud and the stars are shining, it is, in familiar phrase, 'as black as pitch.' The sky itself is black between the stars, and they do not seem to give the slightest illumination. On the other hand, there are nights without a moon when it is (though winter time) quite light. Hedges and trees are plainly visible; the road is light, and anything approaching can be seen at some distance, and this occasionally happens though the sky be partly clouded. So that the character of the night does not seem to depend entirely upon the moon or stars. The shepherds on the hills say that now and then there comes an intense blackness at night which frightens the sheep and makes them leap the hurdles.

When logs of timber are split for firewood they are commonly stacked 'four square,' and occasionally such a stack, four or five feet high, may be seen all aglow with phosphorescence. Each individual split piece of wood is distinctly visible—a pale faintly yellow light seems to be emitted from its surface. At the same time the ends of the faggot-sticks projecting from the adjacent stack of faggots also glow as if touched with fire. So vivid is the light that at the first glance it is quite startling—as if the whole collection of wood were just on the point of bursting into flame. In passing old hollow trees sometimes they appear illuminated from within: the light proceeds from the decaying 'touchwood.' Old willow trees are sometimes streaked with such light from the top to the foot of the trunk. As this phosphorescence is only occasional, it would seem to depend on the condition of the atmosphere.

I once noticed what looked like a glowworm on a window-blind at night, but there was no glowworm there; the light was of a pale greenish hue. In the morning an examination showed that the linen was decayed and almost rotten just in that particular spot, and it had slightly turned colour. Glowworms are uncommon in the district which has been more particularly described.

The *ignis fatuus* is almost extinct; so much so that Jack-o'-the-Lantern has died out of the village folklore. On one occasion, however, I saw what at a distance seemed a bright light shining in a ditch where two hedges met. Thinking some mischief was going on, I went to the spot, when the light disappeared; but on retiring, after a search which proved that no one was about, it came into view again. A second time I approached, and a second time the light died out. A few nights afterwards it was there again, and must clearly have been some kind of *ignis fatuus*. There was a small

quantity of stagnant water in the ditch, and a good deal of rotting wood—branches fallen from trees.

One of the most interesting phenomena in connection with the weather seems to me to be the radiation of clouds. It appears to be more commonly visible in the evening, and, when fully developed, there is a low bank on the horizon, roughly arched, from which streamers of cloud trail right across the sky, through the zenith and down to the horizon opposite. Near each horizon these streamers or lines almost touch; overhead they are wider apart—an effect of perspective, I suppose. Often the lines do not stretch so far, hardly to the zenith, where they spread out like a fan. If the sun has gone down, and the cloud chances to be white, these lines greatly resemble the aurora borealis, which takes the same form, and, when pale, can scarcely be distinguished from them, except for the streamers shooting—now extending, now withdrawing—while the cloud streamers only drift slowly. Sometimes there is but one line of cloud, a single streamer stretching right across the sky. So far as I have been able to observe, this radiation is usually followed by wind blowing in a direction parallel to the course of the streamers.

Once while walking in winter I was overtaken by a storm of rain, and took shelter behind a tree, which for some time kept me perfectly dry. But suddenly there came an increase of darkness, and, glancing round, I saw a black cloud advancing in the teeth of the wind, and close to the earth. The trees it passed were instantly blotted out, and as it approached I could see that in the centre it bulged and hung down—or rather slightly slanting forward—in the shape of an inverted cone with the apex cut off. This bulging part was of a slaty black, and the end travelled over the earth not higher than half the elevation of an ordinary elm. It came up with great speed, and in a moment I was completely drenched, and the field was flooded. It did not seem so much to rain as to descend in a solid sheet of water; this lasted a very short time, and immediately afterwards the storm began to clear. Though not a perfect waterspout, it was something very near it. The tree behind which I had taken shelter stood near a large pond, or mere; and I thought at the time that that might have attracted the cloud. The field quite ran with water, as if suddenly irrigated, but the space thus flooded was of small area—about an acre.

The haymakers sometimes talk of mysterious noises heard in the very finest weather, when it is still and calm, resembling extremely distant thunder. They were convinced it was something ‘in the air;’ but I feel certain it was the guns of the fleet exercising at sea. In that case the sound of the explosion must have travelled over fifty miles in a direct line—supposing it to come from the neighbourhood of the nearest naval station. I have found by observation that thunder cannot be heard nearly so far as the

sound of cannon. I doubt whether it is often heard more than ten miles. Some of the old cottage folk are still positive that it is not the lightning but the thunder that splits the trees; they ask if a great noise does not make the windows rattle, and want to know whether a still greater one may not rive an oak. They allow, however, that the mischief is sometimes done by a thunder-bolt.