

THE
“LOOK ABOUT YOU”
Nature Study Books
BOOK III

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by

Thomas W. Hoare

YESTERDAY'S CLASSICS

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PREFACE

Every lesson herein set down has, during the author's many years' experience in teaching Nature Study, been taught by observation and practice again and again; and each time with satisfactory result. The materials required for most of the lessons—whether they be obtained from the naturalist-dealer or from the nearest hedge, ditch, or pond—are within everybody's reach.

There is nothing that appeals to the heart of the ordinary child like *living things*, be they animal or vegetable, and there is no branch of education at the present day that bears, in the young mind, such excellent fruit as the study of the simple, living things around us.

Your child is nothing if not curious. He wants to understand everything that lives and moves and has its being in his bright little world.

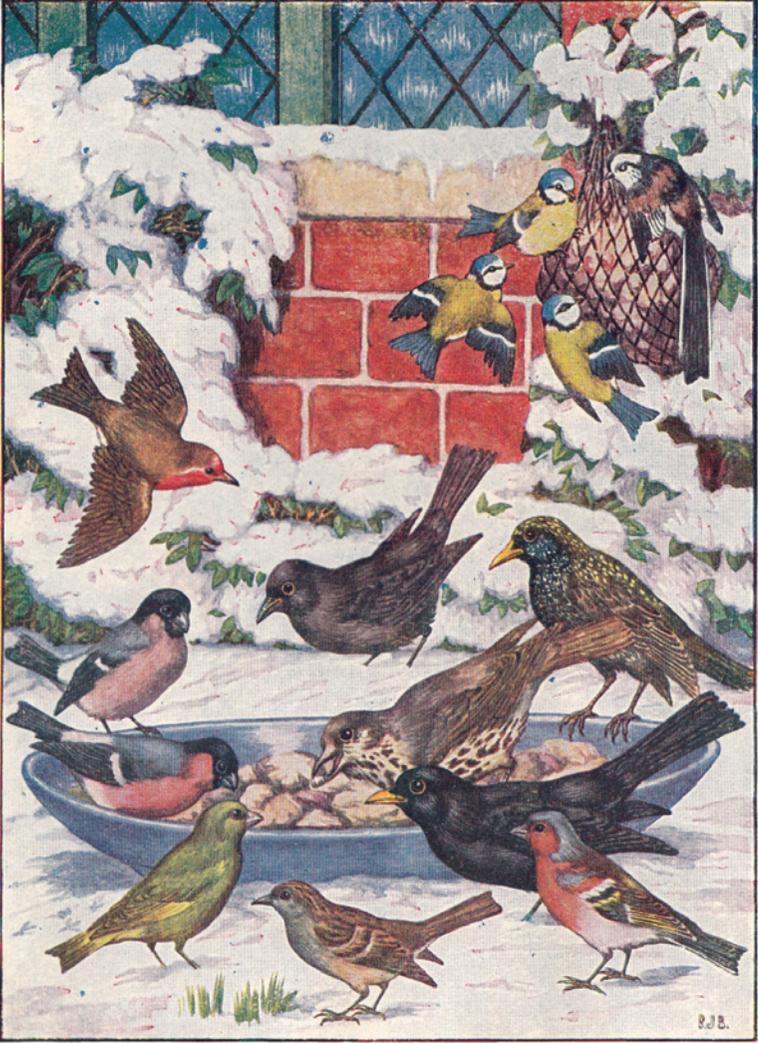
Nature Study involves so many ingenious little deductions, that the reasoning powers are almost constantly employed, and intelligence grows proportionately. The child's powers of observation are stimulated, and his memory is cultivated in the way most pleasing to his inquiring nature. By dissecting

seeds, bulbs, buds, and flowers, his hand is trained, and methods expeditious and exact are inculcated. By drawing his specimens, no matter how roughly or rapidly, his eye is trained more thoroughly than any amount of enforced copying of stiff, uninteresting models of prisms, cones, etc., ever could train it.

The love of flowers and animals is one of the most commendable traits in the disposition of the wondering child, and ought to be encouraged above all others.

It is the author's fondest and most sanguine hope that the working out of the exercises, of which this booklet is mainly composed, may prove much more of a joy than a task, and that the practical knowledge gained thereby may tempt his little readers to study further the great book of Nature, whose broad pages are ever open to us, and whose silent answers to our manifold questions are never very difficult to read.

T. W. H.



Birds in Winter

CHAPTER I

BIRDS IN WINTER

“When we look out there, it makes us feel thankful that we have a nice cosy room to play in and a warm fire to sit beside.”

It was Uncle George who spoke. His two nephews, Frank and Tom, stood at the window watching the birds feeding outside, while Dolly, their little sister, was busy with her picture-blocks on the carpet.

“Yes, it is better to be inside in winter,” said Frank, the elder boy. “These poor little birds must have a hard time out in the cold all night.”

“I should not mind being a bird during the rest of the year, though,” said little Tom. “It must be so jolly to be able to fly wherever you like.”

Uncle George smiled, and said, “Birds are very happy little creatures, Tom, but they have many enemies. Their lives are in constant danger. They must always be on the look-out for cats, hawks, guns, and cruel boys. Those birds that stay with us all the year round have often a hard fight for life in winter-time. In fact, many of them starve to death.

“LOOK ABOUT YOU” BOOK III

“Most of our birds fly to warmer countries in autumn, and come back to us in spring. These miss the frost and snow, but a great number of them get drowned while crossing the sea. I think, as a little boy, you are much better off.

“Let me see; have you put out any food for the birds this morning?”

“Yes, Uncle George, we have done exactly as you told us,” said Frank. “Mother made a little net, which we filled with suet and scraps of meat for the tomtits. We hung it on the ivy, quite near the window. We also put plenty of crumbs and waste bits from the kitchen on the space you cleared for the birds yesterday.”

“Very good,” said Uncle George, “and I see your feathered friends are busy in both places.”

He looked out and saw a crowd of birds hopping on the frozen lawn round the well-filled dish. The little net, which hung just outside the window, was alive with hungry tomtits. They pecked eagerly at the suet, and chattered their thanks between every mouthful.

“What a lot of birds we have to-day,” Uncle George remarked. “Do you know the names of them all, boys?”

“We know those you pointed out to us yesterday,” said Frank. “There is the chaffinch, the thrush, the greenfinch, the blackbird, and the hedge-sparrow, but I don’t know that one with the bright red breast, black velvet head, and grey wings. And there is a new one among the tomtits. He has a very long tail, and is like a small parrot.”

Robin



Starling



Hedge-Sparrow



Greenfinch



Bullfinch



Sparrow



Chaffinch



Long-Tailed Tit



Linnet



Blackbird



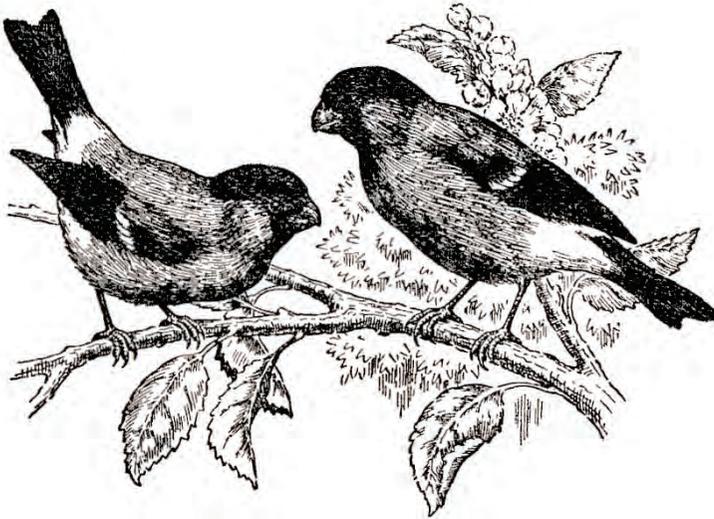
Rook



Thrush



“Oh,” said Uncle George, “the first you spoke of is the bullfinch. He is so easily tamed that he makes a splendid pet. The hen bullfinch is there too, I see. She has a dull brown breast, and is not quite so pretty as her husband. The bullfinch is very fond of berries. If we could get some hawthorn or rowan berries, we should have all the bullfinches in the district around us. The other bird is the long-tailed tit. He is also a very amusing little chap.”



Bullfinches

“Why do the tomtits make such a fuss about the suet?” asked Tom. “The bullfinches do not come near it.”

“That is because the tomtit is a flesh-eater, Tom. He lives on insects. The bullfinch feeds on berries and seeds. He is also blamed for eating the young buds of fruit-trees in spring-time, but I am not quite sure that he does this.”

BIRDS IN WINTER

“Where are all the insects in winter, Uncle George?” asked Frank.

“Well, most of them are buried deep in the ground. Some of them are tucked up in warm cases, and hidden in the chinks of trees and walls.”

“Then why don’t the birds that feed on insects search those trees and walls for them?” Frank asked.

“So the birds do, but the sleeping insects are very hard to find. The cases which hold them are often coloured exactly like the tree or wall which they are fixed to; so that even the sharp eyes of a hungry bird cannot see them.”

CHAPTER II

SEED-EATERS AND INSECT-EATERS

The snow did not go away for some days. While it lasted, Frank and Tom watched the birds very closely. They learned many new and curious things about them.

The sparrows and robins had grown so tame that they would fly right up to the window-sill, and eat the

crumbs and seeds that were placed there for them; while the tomtits paid great attention to the little net bag that hung quite close to the window. So long as they stood back a short distance from the window, the two boys could watch the funny tricks of these hungry little visitors.



Tomtits

Amongst other things, they learned to tell a seed-eating bird from one that feeds on insects.

SEED-EATERS AND INSECT-EATERS

Seed-eating birds, as their uncle told them, have short, stout, hard bills, just the thing for shelling seeds. The insect-eaters have longer and more slender bills; while birds that live upon both seeds and insects have bills hard enough to shell seeds and yet long and sharp enough to pick insects out of their hiding-places.

So many birds came to the feast, that Uncle George cleared the snow from another part of the lawn and spread some dry ashes upon it. Upon one patch he scattered seeds and crumbs, and on the other he placed a large flat dish.

In this dish were put all sorts of waste scraps from the kitchen, such as bones, potatoes, and pieces of meat. Uncle George did this so that the boys could tell flesh-eating birds from those that lived upon seeds.

The starlings came to the dish first, and fought among themselves for the food, although there was much more than enough for them all.

Then came a few rooks, who walked about the dish in quite a lordly way.

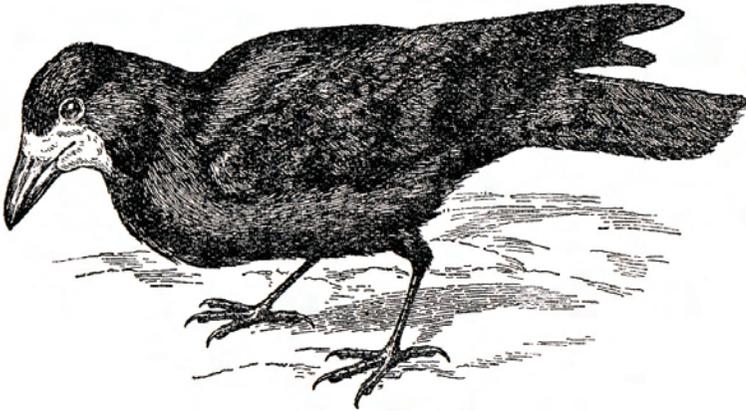
Every now and again one of them would seize a huge crust of bread or a potato in his clumsy bill and fly with it a short distance away. The starlings, thrushes, and blackbirds hopped nimbly about, picking up a choice



Starling

morsel here and there.

The new patch was often crowded with finches of all kinds. The boys noticed that many of the birds fed at both places. Among these were sparrows, robins, chaffinches, thrushes, and starlings. These birds, their uncle explained to them, fed on a mixed food of insects, seeds, and fruits.



Rook

It amused them very much to watch how the rooks and jackdaws always dragged the food away from the dish, as if they were stealing it; while now and then a blackbird would fly away with a loud chatter, as if he had been suddenly found out whilst doing something very wrong.

“These birds,” said Uncle George, “are looked upon as enemies by farmers and gardeners. They are scared out of our fields and gardens by every possible means. That is what makes them steal even the food that is given to them.”

SEED-EATERS AND INSECT-EATERS

“But they pick the newly-sown seeds out of the ground, and steal the fruit when it is ripe,” said Frank. “That is what the gardener says.”

“If the gardener only knew how much they help him, by eating up the grubs and beetles that damage his plants, he would not grudge them a few seeds and berries, Frank,” Uncle George replied. “The rook is one of the farmer’s best friends; and if it were not for thrushes, starlings, blackbirds, and such insect-eating birds, our gardens would be overrun with insects. If these insects were allowed to increase, we should not be able to grow anything. Even the sparrow is the gardener’s friend. He eats the caterpillars that would spoil our fruit trees and bushes.”

CHAPTER III

BUDS

Uncle George and the two boys had been for a long walk. They brought home a lot of twigs which they had cut from trees at the roadside.

Uncle George placed some of these twigs in bottles filled with water. These bottles were placed in the window, so that they could get plenty of sunlight. The rest of the twigs were laid upon the table.

“Now, boys,” said Uncle George, “we are going to find out what buds are. Here is a twig of the horse-chestnut tree, and here is one of the beech tree. Do you notice any difference between them?”

“Oh, yes,” said Frank, “they are very different. The beech buds are longer.”

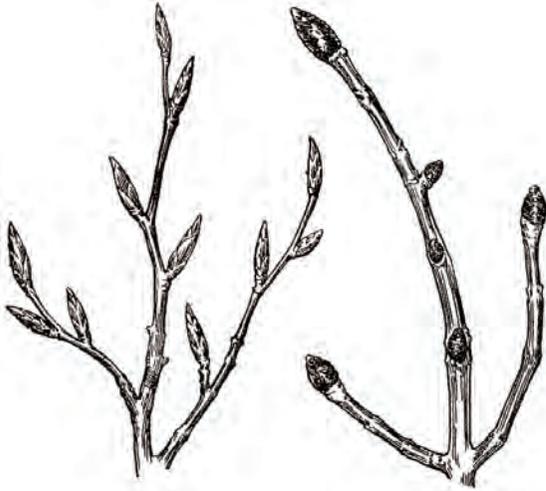
“Anything else?” his uncle asked.

“The horse-chestnut buds have sticky stuff all over them,” said Tom.

“Quite right,” said Uncle George. “On the beech twig the buds are placed singly on opposite sides. On the horse-chestnut twig the buds are in pairs.”

BUDS

Then Uncle George cut one of the buds through with his knife, and they saw that a great number of thick scales were folded round a little green thing in the centre. They saw also a mass of woolly stuff between the scales and the little green object.



Twigs of Beech and Chestnut, showing Buds

Uncle George gave each of the boys a twig, and showed them how to take the scales off the top bud with a large needle. The outside scales were not easily removed. They were so sticky—they stuck to everything that touched them, and soon the boys' fingers were covered with the sticky stuff. As they went on with their work, they found out that the inner scales were not sticky. At last they got all the scales off, and there was nothing left but a tiny woolly mass. On teasing out, this woolly bundle was found to be a little branch bearing small leaves. Every part of it was covered with wool.

“LOOK ABOUT YOU” BOOK III

“Now,” said Uncle George, “you can perhaps tell me what a bud is.”

“It is just a little baby branch, snugly tucked up in a tiny blanket and well covered over with many scale-leaves,” said Frank.

“Very good,” said Uncle George. “Now tell me why it is tucked up in this warm blanket, and perhaps Tom can tell us what the sticky stuff on the outer scales is for.”

“I am sure I cannot tell,” said Frank.

“Just think,” said his uncle kindly. “Why did you call it a *baby* branch? Is it because it is so small, or because it is so snugly wrapped up? Why are babies wrapped up in soft warm clothing?”

“Oh, I know now,” said Frank, “The woolly stuff is to keep out the winter cold.”

“And the sticky stuff on the outside,” said Tom, “must be for keeping out the rain.”

“You are both right,” said Uncle George. “Buds are formed in autumn and early winter. They are, as you have seen, very tender little things. Frost or wet would kill them. But rolled up in soft woolly clothing, covered in with many thick scale-leaves, and made quite waterproof by a thick coat of the sticky stuff, they do not fear the cold.

“If you look at your twigs again, you will find that in taking off the scales you have left a thick ring of marks right round the twig.

BUDS

“Now, if you look down the twig, you will notice another ring of such marks. These are the scale-marks of last year’s bud. The part of the twig in between these two ring marks is a year’s growth.”

“There is a third ring on mine farther down the stem,” said Frank.

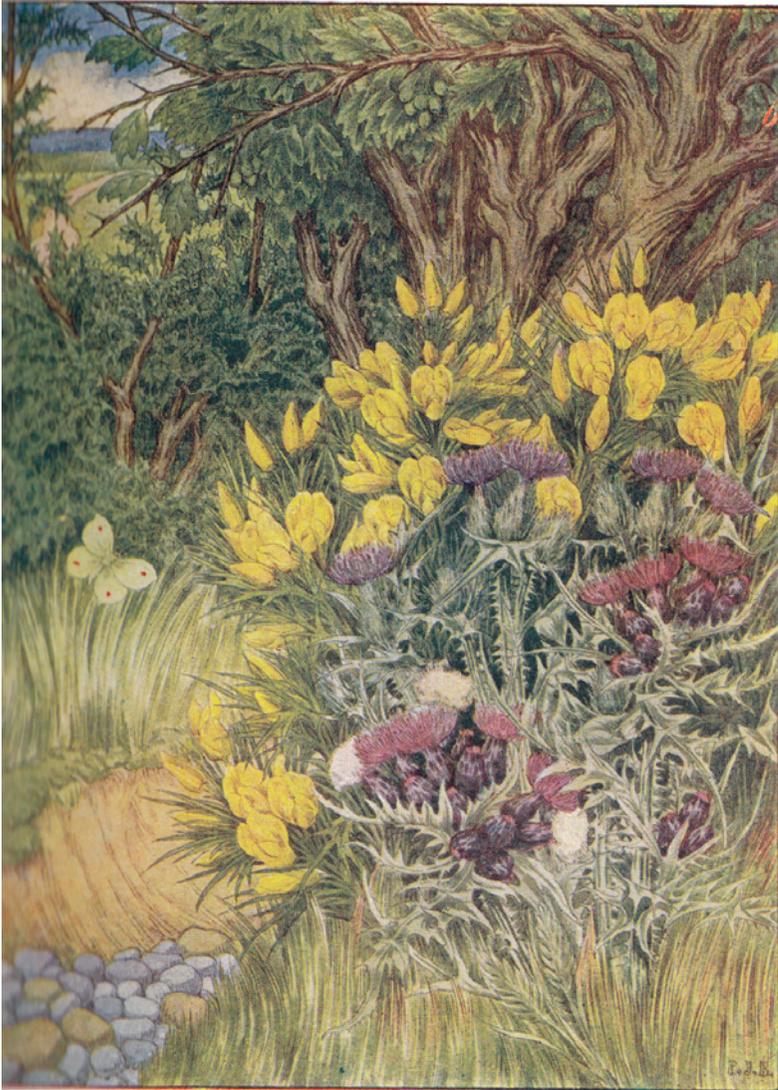
“Yes, and another farther down still,” said Uncle George. “These are the bud marks of former years. Let us measure the distance between them, for in this way we can tell the kind of summers we have had in past years.

“Last year’s growth, you see, is two inches. The growth of the year before is three inches, and the one beneath that is four and a half inches. This tells us that there was very little sunshine during last summer or the summer before, and that three years ago there was a warm summer, causing much growth.”

“I see some other strange marks on the twig,” said Tom.

“Oh, you mean the horse-shoe marks. These are the scars left by the big green leaves which fell off in autumn. You will find one of these curious horse-shoe marks under each bud.

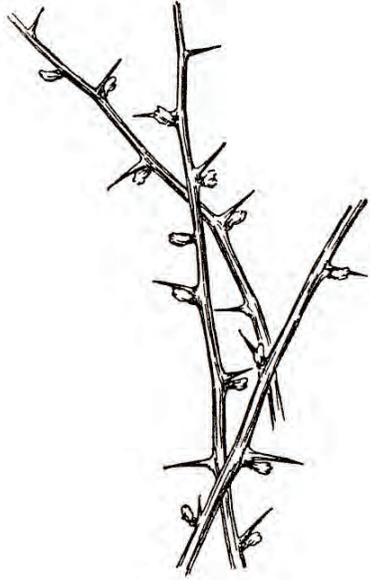
“Here is a hawthorn twig. I brought it to let you see another way in which plants protect their buds. In the hawthorn the buds usually occur in pairs together. Between each pair of buds there is a long sharp thorn.



Plants protected by Thorns and Prickles

BUDS

“The reason why every pair of buds is guarded in this way is very clear. The horse-chestnut and beech have tall, stout stems, which rear up their branches far out of the reach of grazing animals. The hawthorn is a low growing tree. Its branches are within easy reach, and its tender buds would be nipped off by sheep and cattle if it were not for these sharp thorns.



Hawthorn Twigs

“The thorns also prevent the buds from being knocked off by anything rubbing against the hawthorn hedge. You will notice that each thorn is very much longer than the buds beside it. These thorns can give a very cruel prick, as every boy knows who has tried to cut a twig from the hawthorn hedge.

“By and by we shall see that there are many plants which arm themselves against animals in this way.”