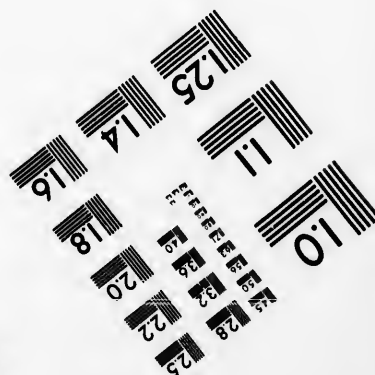
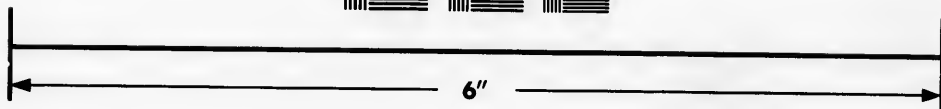
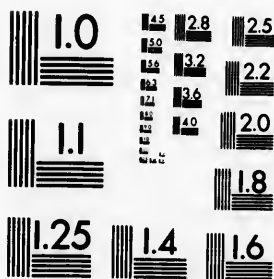


**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
Sciences
Corporation**

23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

**CIHM
Microfiche
Series
(Monographs)**

**ICMH
Collection de
microfiches
(monographies)**



Canadian Institute for Historical Microreproductions / Institut canadien de microreproductions historiques

© 1993

The copy filmed here has been reproduced thanks to the generosity of:

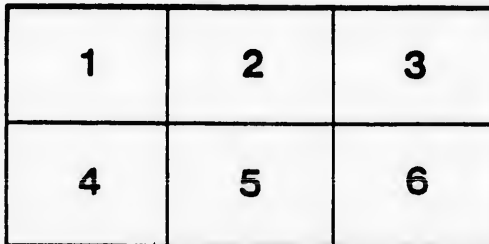
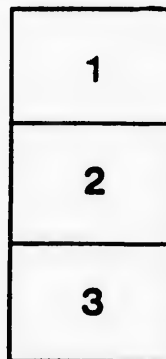
University of Guelph

The images appearing here are the best quality possible considering the condition and legibility of the original copy and in keeping with the filming contract specifications.

Original copies in printed paper covers are filmed beginning with the front cover and ending on the last page with a printed or illustrated impression, or the back cover when appropriate. All other original copies are filmed beginning on the first page with a printed or illustrated impression, and ending on the last page with a printed or illustrated impression.

The last recorded frame on each microfiche shall contain the symbol \rightarrow (meaning "CONTINUED"), or the symbol ∇ (meaning "END"), whichever applies.

Maps, plates, charts, etc., may be filmed at different reduction ratios. Those too large to be entirely included in one exposure are filmed beginning in the upper left hand corner, left to right and top to bottom, as many frames as required. The following diagrams illustrate the method:



L'exemplaire filmé fut reproduit grâce à la générosité de:

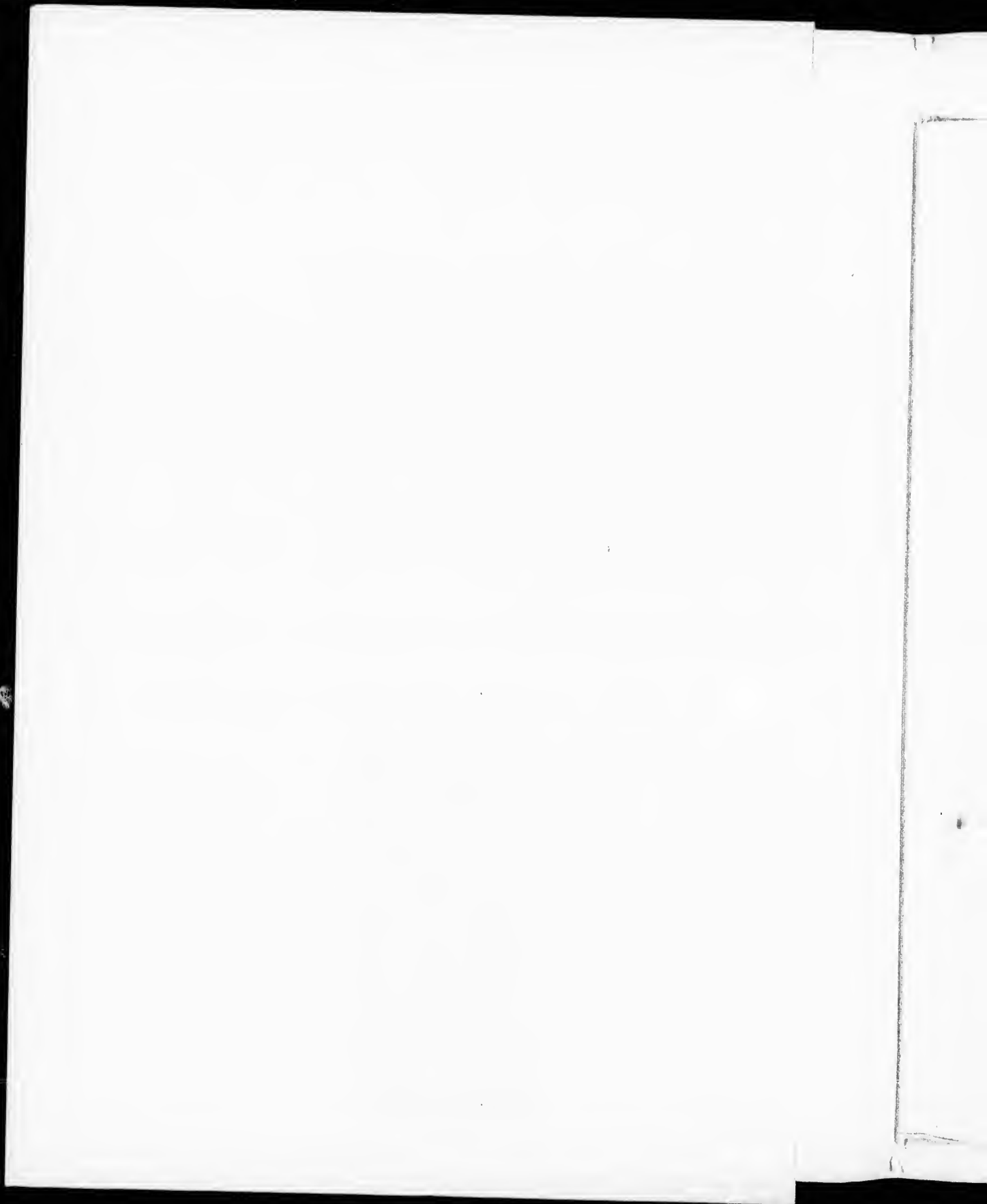
University of Guelph

Les images suivantes ont été reproduites avec le plus grand soin, compte tenu de la condition et de la netteté de l'exemplaire filmé, et en conformité avec les conditions du contrat de filmage.

Les exemplaires originaux dont la couverture en papier est imprimée sont filmés en commençant par le premier plat et en terminant soit par la dernière page qui comporte une empreinte d'impression ou d'illustration, soit par le second plat, selon le cas. Tous les autres exemplaires originaux sont filmés en commençant par la première page qui comporte une empreinte d'impression ou d'illustration et en terminant par la dernière page qui comporte une telle empreinte.

Un des symboles suivants apparaîtra sur la dernière image de chaque microfiche, selon le cas: le symbole \rightarrow signifie "A SUIVRE", le symbole ∇ signifie "FIN".

Les cartes, planches, tableaux, etc., peuvent être filmés à des taux de réduction différents. Lorsque le document est trop grand pour être reproduit en un seul cliché, il est filmé à partir de l'angle supérieur gauche, de gauche à droite, et de haut en bas, en prenant le nombre d'images nécessaire. Les diagrammes suivants illustrent la méthode.



OUR LOCAL ORNITHOLOGY.

READ BEFORE THE

FLORA NATURAL HISTORY SOCIETY.

BY CHARLES CLARKE, ESQ.

FEBRUARY 1st, 1875.

The first object of the Flora Natural History Society is, as its name implies, promotion of the study of the nature and habits of the flowers, the beasts, the fishes, and the birds found in this locality. Having this fact before me, and knowing that the field is not exhausted, and is really almost inexhaustible, I have determined in the present paper and probably in one or two others to follow it, to attempt a rapid review of the Ornithology of Elora and its neighborhood. In doing this as succinctly as possible, without sacrificing clearness to

brevity, I shall avoid abstruse technicalities, although, it must be confessed, it would be difficult to thoroughly enter upon the study of Ornithology without a knowledge of the names and terms which have become the common property of naturalists the world over, and by an acquaintance with which the habits, classification and general characteristics of any new addition to the realms of science can be written down in a short-hand understandable by the students of every land. It is necessary however, to refer to the fact that orni-

thologists have agreed upon a common nomenclature which briefly describes the leading peculiarities of each member of the feathered kingdom, and that the kingdom itself has been divided in such fashion that it is an easy matter to place each subject of it in his own particular portion of it. Thus with birds we have divisions into orders, sub-orders, families and sub-families, as with man we have races, nations, tribes and families. Let us take a single illustration of the utility of this. If I tell you that some good-looking fellow or other is Yorkshire Smith, you know at once that he is of the Smith family, the Yorkshire tribe, the English nation, and the Caucasian race. So with birds. The order containing the most numerous members is that of *Insectivores*, the *Perchers*. One of its sub-orders is that of *Oscines*, the *Singers*. One of its families is that of *Turdide*, the *Thrushes*, and its sub-family is that of *Mimide*, the *Mockers*. A well-known member of this sub-family is *Turdus felix*, the *Cat Bird*. Now, what is suggested by these apparently hard names, which, after all, are just as simple as Jones or Brown, when, with a little mental labor, you become acquainted with them? The student knows at once that this bird has a voice like a cat, is a mocking bird, is a thrush, that thrushes are singers, and that singers are perchers. Without seeing the bird, he could tell you the formation of its feet, give a good guess at its general appearance, pronounce pretty correctly as to its food, its habits, its nests, and upon everything but its exact color and peculiarities. He would find, on reference to books, that it is also termed *Turdus lividus*, and in this manner he would be able to determine its color. In other words, the German student of Ornithology would, from these two names, be able to inform you that the American Cat Bird imitates the songs of other birds, and is himself a singer, that he feeds upon insects and their larvæ, that he

lives upon trees, that he nests in bushes near the ground, that the nest contains from four to six eggs, that they are of a bluish green color, and that the bird himself is of ashy hue; and could tell you nearly as much about our lively little friend as the American student who had listened to his cheerful notes, and watched his merry gambols in forest glades or garden shrubbery. I have mentioned one of the leading orders into which birds are divided, and I will now enumerate them according to the arrangement most commonly observed. The plan ordinarily followed places *Raptors*, the *Robbers*, or *Birds of Prey*, at the head of the list, and this term covers eagles, hawks, buzzards, owls, &c. Then we have *Scansores*, the *Climbers*, such as the cuckoos and woodpeckers. Then follow *Insectivores*, the *Perchers*, including nearly the whole of our small birds. Another order is that of *Rasores*, the *Scratchers*, under which are ranged our domestic fowls, as well as doves, grouse, partridges and turkeys. *Grallatores*, the *Waders*, come next, and are the herons, bitterns, plovers, snipes, sandpipers, rails, &c. Then we have *Natatores*, or *Swimmers*, such as ducks, geese, gulls, grebes and loons. Some give another division, the *Runners*, and describe the *Swimmers* as the *Palm* or *Hand-footed* or *Webbed*. Again we have an addition of the *Screamers*. But the more common classification—and it seems to admirably answer the intended purpose—is that which I have described. So much by way of preliminary observation. In this neighborhood we have few birds of prey, a comparatively small number of scratchers, waders and swimmers, some climbers, and many perchers. Upon the present occasion I shall confine myself to a notice of some of the representatives of the divisions affording us most material. Firstly, let us look at our *Climbers*. A peculiar characteristic of this order is the fact that the toes are in pairs, two toes being in front and two

behind, the outer anterior one being usually directed backwards. Of this order the most prominent family is that of Picidæ, the Woodpeckers. One of the most conspicuous of these is the red-headed, black-winged woodpecker, or *Picus erythiocephalus*. This bird was much more often seen a few years ago, when bush covered the country, than now, but is still found in sufficient numbers to be familiarly known to all lovers of nature. It is slightly larger than the Hairy Woodpecker, to be soon noticed, and is easily distinguished by the bright crimson covering of its head and neck. Its wings are black, and are crossed with a broad band of white. It arrives here about the middle of May, and nests in a hole, excavated in a tree, fourteen inches or so in depth, and tapering gradually to its mouth. The eggs, five in number, are perfectly white. Some members of this variety remain during winter at odd times, but they are seldom seen here at that season. Generally, the red-headed woodpecker leaves for the south in early October. *Colaptes auratus*, the golden-winged woodpecker, or the Pigeon Woodpecker, and often known as the Flicker, from its peculiar cry when alighting on a tree, is common in this locality. It will be familiar to every boy as the High-holder. It is one of the most attractive of the family, and is beautifully marked. The male has a black patch on each side of the cheek, a red patch, crescent shaped, on the neck, yellow tail feathers, and a bright yellow coloring on the lower surface of the wings, while the back is brown and striped with black. The extreme length of the bird is about twelve inches. The nest is in a hole perforated by the birds in a tree, and contains six eggs, pure white in color. The Flicker feeds upon insects, berries, seeds and fruit, arrives about the 20th April, and leaves late in the fall. Two other members of the woodpecker family are yet to be noticed. These are the Hairy Woodpecker and the Downy Woodpecker. The latter

is almost an exact counterpart of the other, excepting in size, the hairy gentleman being the larger of the two. This bird, *Picus villosus*, is about nine inches long, is prettily marked with black and white, has a bright scarlet or orange patch on the back part of his head, divided by a band of black running from the crown, and takes his name from loose feathers on his back resembling hairs, and which give him at times an appearance of raggedness and a tendency to dissipation, of which, I feel sure, he is not guilty. He has hairs about his beak, too, although not "bearded like a pard." The female is destitute of the red marking, but is otherwise like the male. The Downy Woodpecker, *Picus pubescens*, has a similar red marking on the nape, but it is undivided by the black band, and he bears a striking likeness to his big brother, even in the markings on wings and head. Both of these birds feed upon insects and larvæ, and nest in holes in trees which they cleverly work with their bills when necessary. The female Hairy Woodpecker deposits five perfectly white eggs, and the Downy Woodpecker six, of similar appearance, but of smaller size. These birds remain with us "all the year round," and may often be seen in our gardens and door-yards during the winter. My family have hung bones upon a lilac tree near the kitchen door since snow fell, and placed chopped suet and cooked meat upon a board on a fence beneath it, and this good cheer is regularly visited every day by male birds of both varieties, and we look in the morning, as a matter of course, for Mr. Villosus, who must have the first pickings of the table, being the big brother, and for Mr. Pubescens, who invariably follows him, to as early a breakfast as they can get. They feed several times during the day, but with greatest punctuality in early morning, and just before sunset. Mr. Fenwick has made similar provision for feathered friends, and has similar guests daily. It is amusing to observe the

caution with which these birds approach their meal, and the confidence which they display when they have found it, and this sight alone is ample return for the little trouble incurred in hanging up bones otherwise useless. There are other members of this winter garden party, of whom I shall speak bye and bye. Before dismissing the Climbers, I must notice the fact that the black-billed Cuckoo is sometimes seen here, although he is not, I think, a common visitor. He is about twelve inches in extreme length, greenish olive in color, pure white beneath, with under-surface of tail feathers ash grey. He frequents our orchards, and is a great insect destroyer. I observed one closely last summer in my garden, but he did not take up permanent residence there, and paid flying visits only for a few summer days. He does not sound *cuck-coo* as does his English namesake. Samuels, in his book on "Birds of New England," correctly describes his song as a continued "*Krow-krow-krow-krow: kru-kir, kru-kir, kru-kir.*" Unlike the European Cuckoo, the female American Cuckoo builds a nest, and lays four eggs therein, of a dark greenish-blue. I am sorry to record the fact that the Cuckoo is a destroyer of the eggs and young of other birds, but, fortunately, he is a great coward, and is easily driven off by Robins, Blue Birds, and even the little Chick-a-dee. In this respect he is not unlike other loud-mouthed bullies and rogues, without feathers, who break into quiet-people's houses, and are easily driven off by the slightest display of pluck.

Coming to the *Insectores*, or Perchers, we find them distinguished by three toes in front and one behind, but never with two toes directed backwards as in the Climbers. The hind toe is described as similar to the thumb or inner toe of the mammals, and is generally short. When we reflect upon the different habits of the two orders, the wisdom of this arrangement is at once seen. The general title,

Perchers, given to this class is somewhat vague, as it might, with a show of justice, be equally applied to the Birds of Prey, to the Scratchers, the Waders, and even some of the Swimmers, but Samuels points out that in the Perchers proper, the claws are not retractile, as in birds of prey, nor is the hind toe situated much, if any, above the level of the others, as in the various orders just named. In a review of the Perchers, an immense field is at once opened up to us, and volumes might again be written as they have been in the past, descriptive of its numberless beauties, but on the present occasion, I shall limit myself to a description of a few of the most commonly known of them. I have already spoken of winter parties of birds, and these are generally made up of the Woodpeckers mentioned and the Perchers, members of the family *Paridae*, the black-capped Titmouse, and the white and red-bellied Nuthatches. Everybody knows the first of these, the nimble little "chick-a-dee," with the cheerful little song which gives him his name. Correctly speaking he is *Parus palustris*—swamp titmouse—or the black-capped titmouse. You may easily recognize him by his black head and throat, ashy back, brownish white sides, and white under parts. In the depths of the woods about the lumberman's shanty, in the forest where the swinging axe is cutting out a home, in the sugar bush where the maple sap is running its riches into the wooden trough, in the door yards where crumbs and refuse bits are thrown, about the wood-pile, amongst the apple trees in summer and winter, the little black cap is regularly to be found, and is as welcome as his simple song is sweet and attractive. He is the most confiding of our visitors, and should be as sacredly respected by the Canadian, as the Robin Redbreast is by the Englishman. But a few weeks ago, I saw an illustration of his trustfulness. Associating with woodpeckers and nuthatches, two pairs of

black-caps visited the back-door of my residence to obtain a supply of food, and so free from fear were they that they frequently alighted upon the hands of my wife and daughters, as they did upon my own, and pecked away at a feast of suet there provided for them. One bird died from the effects of the severe storm of the 9th of January, but the three survivors, one of whom we call "the widower," come repeatedly every day, and are tamer than caged birds. The nuthatches and woodpeckers are more cautious, and keep at what they regard as safer distance, but even they will remain within a few feet while their food is being placed in readiness for them. The Black-cap builds in a hole in a stump, and lays from six to ten eggs which are nearly white, with reddish brown marking at the greater end. *Sitta carolinensis*, the White-bellied Nuthatch, is another of this friendly winter group, and is probably the most active, as he is certainly the most greedy of the company. From early morn to frosty eve he is on the wing, or running from top to bottom of wood piles and trees, and is a most industrious destroyer of insects. These he and the titmouse find in winter in the shape of bark lice upon apple trees, and thousands are devoured by them in the course of a short time. Such entomologists are amongst the gardener's best friends, and he should do much to attract them to his orchard. You know the Nuthatch by his sharp bill, which is as long as his head, his short broad tail, his ashy blue back black head and throat, and white waist coat. His length is about six inches. He is similar to the woodpecker in his habits, is closely allied to that family, and builds in an excavation in a tree. The female Nuthatch lays six eggs, of a dull white or rosate-white color, with small spots and dashes of light red. When sleeping, he turns head downwards and clings to the bark of a tree, or upon

a wall with his sharp claws. The red-bellied Nuthatch is nearly like the white-bellied variety, differing only in his rufous colored under parts. Both remain with us during the whole year, although they may be more frequently found in the forest than near human dwellings in summer, and both are amongst the most valuable of our insectivorous birds. Let us now turn for a few moments to an examination of some members of the sub-order *Oscinae*, the Singing Birds, of which we have one of the most interesting families in *Turdidae*, the Thrushes. I have already mentioned the sub-family *Mimine*, the Mockers. Of these, the two best known to us, and which I shall mention on this occasion are *Turdus Rufus*, the Brown Thrush and *Turdus felivox*, the Cat Bird. The Brown Thrush, more commonly spoken of as the Brown Thrasher, is about eleven inches long, cinnamon red in upper portions, with a lighter shade, streaked with brown, below, and arrives here about the last of April in ordinary seasons. The nest is to be found in a low bush, and sometimes upon the ground, at the foot of a shrub or wild vine, and near to swamps or streams. The eggs are from four to six, of a greenish or dirty white, and plentifully sprinkled with brown. Dr. Ross, I may remark, describes the color as dull buff. The Thrasher is one of our sweetest singers, and one of the most active in his movements, but although he is classed with the Mocking Birds it is doubtful whether he really imitates. He is a determined enemy to the cut worms, and every gardener should therefore bid him welcome as a valuable assistant in the removal of one of our most obnoxious insect pests. He leaves Canada about the first of October, wintering in southern latitudes. Our other Mocker is *Turdus felivox*, the Cat Bird, who, next to the Robin, is the best known of our Thrushes. He is not so large as the Thrasher, being

about nine inches in length, and is less conspicuous from plumage having a dull lead color, with wings so dark brown as to appear like a dirty black. The Cat Bird arrives about the middle of May, and generally remains near settlements, apparently delighted in the protection afforded by the near neighborhood of man, although coy and shy enough in his presence. The nest is a funny collection of all the odds and ends in the vicinity, although finished with workmanlike skill, and cleverly lined with fine grass or hair. I have seen old rags, bits of string, pieces of newspapers, and rope's end, worked up with sticks, grass and strips of bark in one of these constructions. The eggs are four and sometimes five in number, of a deep bright green color, and more ovate in form than those of the Robin. The Cat Bird, if not a sweet singer, is at least a noisy one, and is especially busy in early morning and evening. His imitative powers are really great, and it is difficult to detect the difference between his assumed notes and those of the bird for the moment represented. He is especially at home in imitation of the Robin, and I have seen a Cat Bird sufficiently ambitious to attempt the song of tame Canaries hung in a garden, and near whose cage he perched himself, but I am in honor bound to confess, although I do it somewhat reluctantly, that his effort in that direction was a signal failure. His plaintive cry, so like the mew of a cat as to give him his name, is peculiarly his own, and has deceived thousands into the belief that the sounds proceeded from an unfortunate pussy in a despondent state of mind. You may often hear it when walking in the woods, and approaching the vicinity of the Cat Bird's nest. It may be used, and I believe that it is, for the purpose of distracting the intention of the intruder and generally succeeds in that object, unless you are acquainted with the

habits of the bird. I have known two broods to be raised in one season, and this is the rule, I think, but Cat Birds are, nevertheless, not nearly so numerous as Robins. Early in October the Cat Bird goes south, where he spends his winters.—The sweetest singer of the Thrush family is *Turdus melodus*, the Song Thrush, which arrives in Canada shortly before the Queen's Birthday in favorable seasons, and speedily builds a nest in some low bush in the deep woods, in which four light-blue eggs are deposited. A little over eight inches in length, the Song Thrush is in color a light cinnamon brown, slightly leaning to red on the top of the head, and white, tinged with brown, on the under parts. He sings at early dawn and early twilight, and continues his song with energy on dull days preceding storms of rain. He is generally found near running water, and in the shelter of the thick bush. He may often be seen in our Cascade Woods, and adds much to the attractiveness of a walk through their welcome shades. He leaves us for the south in October, taking his departure before the Robins. Another well-known singer is *Turdus solitarius*, the Hermit Thrush, sometimes called the Swamp Robin, whose habits and general appearance are so similar to those of the bird just described, that they are frequently mistaken for each other. It nests in bushes or upon the ground, the eggs being blue in color and unspotted. The Olive-backed Thrush is another member of this family not frequently seen here, and, as its name implies, is of an olive brown color, with a decided shade of green. Its eggs differ from those of the Hermit Thrush, being of a greenish blue, and slightly spotted with dots and blotches of reddish brown. It prefers the uplands to the swamps, and is a great insect feeder. I now come to the best known of our Thrushes, and the last to which I shall call your attention, our old and valuable friend, *Turdus migratorius*, the

Robin. His voice and form are familiar from Hudson's Bay to the Gulf of Mexico, from Nova Scotia to British Columbia. Need I describe him? Is there one here who has not looked admiringly upon his prim brown coat and glowing red vest, who has not heard his welcome chuckle in spring when the ground has still been covered, here and there, with snow, who has not laughed at his battles with the worms amongst the green grass and golden dandelions, who has not enjoyed the saucy cock of his finely rounded head, and who has not watched him rushing merrily through a sea of apple blossoms, the very personification of rollicking happiness and bustling mirth? In garden, or field or wood, he is equally at home, ever active, jovial and contented. His very song says "Cheer up." In spring he is welcome as the flowers; in summer he gives life to the dulllest landscape; in fall he remains with us until the hard frost and falling flakes give him peremptory notice to quit. We may well call him an old friend. The same bird returns to the same locality for years, building in the same tree, and often renewing the same nest. I am convinced of this from personal observations. Four years ago, a robin with an injured wing made his summer home in my garden, and has annually returned, and I feel pretty confident that I shall renew his acquaintance before the end of March, if he has escaped the thousand accidents to which Robin life is subject. The Robin is a friend in another sense. He is the most determined grub destroyer we have. The quantity and number of insects consumed by his family in the breeding season is something astonishing, and to a non-observer statements upon this point are hard to believe. But his utility in this respect is capable of easy proof, and I would ask every farmer or orchardist who sets down the bird as a mere fruit eater, and regards him from that point only, to

watch a pair closely during the coming season, and then balance accounts between fruit eaten and fruit preserved from the ravages of grub and caterpillar and give our feathered friend the benefit of the result, in increased cure and less animosity. Prof. Treadwell, of Cambridge University, Mass., determined to satisfy himself upon this point, and for this purpose took two young robins from their nest, intending to bring them up by hand. Each weighed twenty-five pennyweights, and they were both plump and strong. The first night he gave three worms to each of them. Next day he increased the quantity to ten each, but feared that he was overfeeding them, and so on the third day decreased the supply to eight. One sickened, grew feeble, and died. The Professor opened it, and found the bird entirely empty and wisely concluded that it had died from want of food. He gave an increased number of worms to the surviving bird, allowing it on the fourth day fifteen worms, on the fifth twenty-four, on the sixth twenty-five, on the seventh thirty, and on the eighth thirty-one. This number seemed insufficient as the bird was losing plumpness and weight. He therefore added a supply of raw meat, sand and gravel. On the eleventh day he gave forty worms, weighing twentypennyweights, but the bird still fell off, and it was not until the fourteenth day, when the young Robin ate sixty-eight worms, or thirty-five pennyweights, that he began to increase in weight. The length of these worms, laid end to end, was about fourteen feet, or ten times the length of the intestines of the bird. The little devourer ate forty-one per cent more than his own weight in twenty-four hours. At the same rate, how many worms would a pair of robins require for a nest of young ones during a summer's day? Two hundred and fifty daily, or, better still, their equivalent in the shape of insects or their larvæ. As the Professor calculates, this would need a worm,

or its equivalent, every two and two-fifths minutes for ten hours supply, in addition to the food consumed by the parent birds themselves. I need add nothing to prove the usefulness of the Robin as an insect destroyer, and what has been told of him might be told of every other bird noticed by me in this paper. In these facts, have we not the strongest possible arguments in favor of the strict enforcement of the law enacted for the protection of our insectivorous birds, and is it not the duty of every good citizen to aid in seeing it faithfully carried out?

With these questions, I close my present remarks upon this subject, but hope to return to it at some future meeting, if you approve and opportunity offers.

