
THE
PASSENGER
PIGEON *By*
W·B·MERSHON

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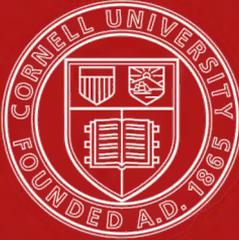
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The passenger pigeon.



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The Passenger Pigeon



PASSENGER PIGEON (*Columba Migratoria*)

Upper bird, male ; lower, female

THE PASSENGER PIGEON

BY
W. B. MERSHON



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INTRODUCTION

FOR the last three years I have spent most of my leisure time in collecting as much material as possible which might help to throw light on the oft-repeated query, "What has become of the wild pigeons?" The result of this labor of love is scarcely more than a compilation, and I am under many obligations to those who have so cheerfully assisted me. I have given them credit by name in connection with their various contributions, but I wish that I might have been able to give them the more finished and literary setting that would have been within the reach of a trained writer or scientist. I am merely a business man who is interested in the Passenger Pigeon because he loves the outdoors and its wild things, and sincerely regrets the cruel extinction of one of the most interesting natural phenomena of his own country. If I have been able to make a compilation that otherwise would not have been available for the interested reader, I need make no further apologies for the imperfect manner of my treatment of this subject.

It is hard for us of an older generation to realize that as recently as 1880 the Passenger Pigeon was thronging in countless millions through large areas of the Middle West, and that in our boyhood we could find no exag-

generation in the records of such earlier observers as Alexander Wilson, the ornithologist, who said that these birds associated in such prodigious numbers as almost to surpass belief, and that their numbers had no parallel among any other feathered tribes on the face of the earth; or that one of their "roosts" would kill the trees over thousands of acres as completely as if the whole forest had been girdled with an ax.

Audubon estimated that an average flock of these pigeons contained a billion and a quarter of birds, which consumed more than eight and a half million bushels of mast in a day's feeding. They were slain by millions during the middle of the last century, and from one region in Michigan in one year three million Passenger Pigeons were killed for market, while in that roost alone as many more perished because of the barbarous methods of hunting them. They supplied a means of living for thousands of hunters, who devastated their flocks with nets and guns, and even with fire. Yet so vast were their numbers that after thirty years of observation Audubon was able to say that "even in the face of such dreadful havoc nothing but the diminution of our forests can accomplish their decrease."

Many theories have been advanced to account for the disappearance of the wild pigeons, among them that their migration may have been overwhelmed by some cyclonic disturbance of the atmosphere which destroyed their myriads at one blow. The big "nesting" of 1878

in Michigan was undoubtedly the last large migration, but the pigeons continued to nest infrequently in Michigan and the North for several years after that, and until as late as 1886 they were trapped for market or for trap-shooting. Therefore the pigeons did not become extinct in a day; nor did one tremendous catastrophe wipe them from the face of the earth. They gradually became fewer and existed for twenty years or more after the date set as that of the final extermination.

At one time the wild pigeons covered the entire north from the Gaspé Peninsula to the Red River of the North. Separate nestings and flights were of regular yearly occurrence over this vast eastern and northern expanse. Gradually civilization, molestation and warfare drove them from the Atlantic seaboard west, until Michigan was their last grand rendezvous, in which region their mighty hosts congregated for the final grand nesting in 1878. As late as 1845 they were quite numerous on the Gaspé Peninsula of Quebec, but disappeared from there about that time.

The habits of the birds were such that they could not thrive singly nor in small bodies, but were dependent upon one another, and vast communities were necessary to their very existence, while an enormous quantity of food was necessary for their sustenance. The cutting off of the forests and food supply interfered with their plan of existence and drove them into new localities,

and the ever increasing slaughter could not help but lessen their once vast numbers.

The Passenger Pigeon laid only one egg in its nest, rarely two, and although it bred three or four times a year it could not replenish the numbers slaughtered by the professional netters. Undoubtedly millions of the birds perished at various periods along the Great Lakes country, becoming confused in foggy weather and dropping from exhaustion into the water, while snow and sleet storms at times caused great mortality among the young birds, and even among the old ones, which often arrived in the North before winter had passed.

The history of the buffalo is repeated in that of the wild pigeon, the extermination of which was inspired by the same motive: the greed of man and the pursuit of the almighty dollar. We lock the barn door after the horse is stolen. Our white pine forests and timber lands in general have been wantonly destroyed with no thought for the future. The American people are wasteful. They are just beginning to learn the need of economy in the use of that which Nature has flung at their feet. When one recalls the destruction of that noble animal, the buffalo, frequently for nothing else than so-called sport, or the removal of a robe; when one thinks of the burning of forest trees which took centuries to grow, merely to clear a piece of land to raise crops, it is not to be wondered at that the wild pigeon, insignificant, and not even classed as a game bird, so soon became extinct.

The Passenger Pigeon

CHAPTER I

My Boyhood Among the Pigeons

MY boyhood was made active and wholesome by a love for outdoor pastimes that had been bred in me by generations of sport-loving ancestors. From which side of the genealogical tree this ardor for field and forest and open sky had come with stronger influence I cannot say. While my father was the one to use the fowling-piece and cast the fly for the glorious speckled trout, my mother was a willing conspirator, for it was she who packed the lunch basket, often called us for the start in the gray morning, and went along to "hold the horse" while we shot pigeons. And when we were bent on a day in the woods in bracing October weather she drove old Dolly sedately along the winding trail, while I hunted one side of the woods and father hunted the other. On such days we were after partridges, of course, ruffed grouse, the king of all game birds. Often mother marked them down and told us just where they had crossed the road, or whether the bird was hit, for the cloud of smoke from the old black powder made seeing guesswork on our part. She loved the dogs, too, those good old friends and workers, Sport, Bob, and Ranger.

I remember calling my mother to a window early one morning and shouting: "See there! a flock of pigeons! Ah, ha! April fool!" This time I did not deceive her with the threadbare trick. The joke was "on me" for once. There was a flight of pigeons that morning, the first one of the season, and behind the foremost flock another and another came streaming. Away from the east side of the river at the north of the town, from near Crow Island, they swept like a cloud. Crossing the river to the west they reached the woods near Jerome's mill and skirted the clearings or passed in waves over the tree tops, back of John Winter's farm, and then wheeled to the south. Out of the tongue of woodland, just back of the Hermansau Church, they poured, thence over the fields, too high to be shot, and then away to the evergreens and stately pines of Pine Hill; on, on, on across the Tittabawassee, to some feeding ground we knew not how far away.

Now that the pigeons had come they would "fly" every morning. This we knew from years of observation in the great migration belt of Michigan. They would fly lower to-morrow morning, and in a day or two more sweep low enough for the sixteen-gauge and the number eight shot to reach them. Sometimes, even now, forty years after the last of the great passenger pigeon flights, I fall to day-dreaming and seem to hear myself saying in the eager, piping tones of those golden boyhood days:

“Mother, I am going for pigeons to-morrow morning! Do call me if I oversleep. I must be awake by four o’clock. We’ll have pigeon pot-pie to-morrow. I’m going to bed early so as to be sure to be up by day-break. Old Sport is going along to ‘fetch’ dead birds.”

“Hello, dad,” cries a voice in my ear, “what are you up to? What are you hustling around so for with your old shot pouch and powder-flask? There’s nothing to shoot this time of the year.”

The spell is broken; my own boy fetches his daddy out of his dream, and I am fairly caught in the act of making an old fool of myself. My youngsters are counting the days before May first when I have promised to take them trout-fishing, and the smallest boy found his first gun in his stocking last Christmas. But they can know nothing at all about the joys and excitement of pigeon shooting in the vanished days when these birds fairly darkened the sky above our old homestead. But I try to tell them what we used to do and my story sounds something like this:

“It is early in the spring, so early that a bunch of snow may yet be found on the north side of the largest of the fallen trees in the woods. Puddles that the melting snow left in the hollows of the clearing are fringed with ice this morning, and we look around and tell each other, ‘There was a frost last night.’ The mud in the road has stiffened, and the rutted cattle tracks are also streaked and barred with ice. Yet winter has gone and

spring is here, for the buds are swelling on the twigs of the elms and the pussy willows show their dainty, silvery signals to tell us that the vernal equinox has come and gone.

“If the springtime is still young, so is the day. Light is breaking in the gray sky of dawn as we hurry along the slippery, sticky road. We must make haste to the point of woods, by John Winter’s clearing, before full daybreak or the pigeons will be flying and we will miss the early flocks which always keep nearest the ground.

“You may be curious to know what we look like as we trudge along in Indian file, eagerly chatting about a kind of sport which this later generation knows nothing about. I am a chunk of a country lad, topped by a woolen cap with ear-tabs pulled down over my ears, a tippet around my neck, yarn mittens on my hands, which are sure to be badly skinned and chapped this time of year from playing ‘knuckle-down-tight.’

“My ‘every-day pants’ are tucked into a pair of calf-skin boots with square pieces of red leather for the tops, an old-fashioned adornment dear to Young America of my day. My old Irish water spaniel ‘Sport’ is tagging behind or charging frantically ahead; my gun is a sixteen-gauge muzzle loader, stub and twist barrels, with dogs’ heads for the hammers.

“Dangling from one shoulder is a leather shot pouch that cuts off one ounce of number eights for a load. The sides of this pouch are embossed, on the one a

group of English woodcock, on the other a setter rampant. Hanging at my left side by a green cord with a tassel or two is my fluted copper powder flask, ready to measure out two and three-fourths drams of coarse Dupont or Curtis & Harvey powder.

“My pockets are full of Ely’s black-edged wads, for I am a young nabob of sportsmen, let me tell you, and I scorn to use tow or bits of newspaper for wadding. My vest pocket holds the caps, G. D.’s or Ely’s again, for didn’t I tell you that I was a nabob. The *pièce de résistance* of this outfit is the game bag, the pride of my eye, for it was a Christmas present, and this is its maiden shooting trip. Suspended over the left shoulder so that it will hang well back of the right hip, the strap that carries it is broad and with many holes for the wondrous buckle which can be shifted to hang it in the most comfortable place, wherever that is, for when it is loaded with game it will choke me almost to death, no matter how I adjust it. This noble bag has two pockets, one of them for luncheon, and on the outside is a netted pocket, easy to get into and keeping the birds cool. I nearly forgot to mention its magnificent fringe, which hangs down from both sides and the bottom like the war-bags of an Indian chief.

“My companions are rigged out in much the same fashion. They are grown men, however, for I don’t remember any other boys who shot pigeons with me. Holabird or khaki hunting suits are as yet unknown, and

even corduroy coats are rare. The powder horn is seen as often as the copper flask, and one hunter has a shot belt with two compartments instead of the English pouch. Of guns the assortment is as varied as the number of hunters, but the old, hard-kicking army musket with its iron ramrod is more popular than any other arm.

“We reach the edge of the clearing not a minute too soon. Now and then a distant shot tells us that we are not the first hunters out afield this morning. The guns are cracking everywhere along the road that skirts the woodland, and back in, close to the ‘chopping,’ some better wing-shots are posted by the openings into the woods where the birds fly lower, but where the shooting is more difficult. It is largely of the ‘pick your bird’ style, for the flight of a pigeon is very swift, and when they are darting among the tree-tops of a small forest opening, rare skill is required to bag one’s birds.

“I prefer to take the flocks, even though they offer me more distant targets, and soon my gun-barrels are as hot as those of the rest of the skirmishers. Sometimes two or three birds drop from a flock at a single discharge, and then several shots may not fetch from on high more than one or two of the long tail-feathers spinning and twisting to the ground. It is fascinating to watch the whirling, shining descent of one of these feathers, and I pick up one and stick it in my cap as a matter of habit.

“This kind of pigeon shooting takes a good gun and

ammunition to kill a big bag as we bang away at long range at the birds on their way to the morning feeding-ground. The flight is over by half-past six o'clock and I am home by seven o'clock ready for breakfast and then to scamper off to school.

"The pigeons in this particular locality have followed the same routine as long as I have known them. They only fly in the morning, always going in the same direction, and I can't recall seeing them coming back again, or flying later in the day. This habit holds until the young squabs are in the nests in June, after which we are likely to find pigeons almost anywhere, for their feeding grounds become scattered and local.

"One thing that annoys me in these brave days of youth and sport is the poacher, the low-down fellow who steals my birds. I am reckoned a pretty good shot, and I have a first-rate gun, but I am only a boy, so the pigeon thief thinks I am fair picking, and he saves his ammunition by claiming every bird that drops anywhere near him.

"Another smart dodge of his is to fire into a flock ahead or behind the one I am shooting at and then claim whatever birds fall as the quarry of both our guns. If he is not too big I try to lick him, but generally I have to submit to the rascality unless I can persuade a grown-up friend to take my part. Sometimes these villains hang around my shooting ground without any guns at all, and pick up as many birds as I do. Then I hunt around

for a father or an uncle to reinforce my protests and there is a pretty row which ends in the interloper taking to his heels to wait for a more propitious occasion.

“When we are ready to carry our birds home we pull out the four long tail-feathers and knot them together at the tips. Then the quill ends are stuck through the soft part of the lower mandible, and the birds are strung together, eight or ten in a string. These strings are bunched together by tying the quill ends of the feathers, and we have our game festooned in compact shape for the triumphal march homeward bound.”

Alas, the pigeons and the frosty morning hunts and the delectable pigeon-pie are gone, no more to return. They are numbered with those recollections which help to convince me that the boys of to-day don't have as good times as we youngsters did in the prime of our busy out-door world.

CHAPTER II

The Passenger Pigeon

(*Columba Migratoria*)

From "American Ornithology," by Alexander Wilson

THIS remarkable bird merits a distinguished place in the annals of our feathered tribes—a claim to which I shall endeavor to do justice; and, though it would be impossible, in the bounds allotted to this account, to relate all I have seen and heard of this species, yet no circumstance shall be omitted with which I am acquainted (however extraordinary some of these may appear) that may tend to illustrate its history.

The wild pigeon of the United States inhabits a wide and extensive region of North America, on this side of the Great Stony Mountains, beyond which, to the westward, I have not heard of their being seen. According to Mr. Hutchins, they abound in the country around Hudson's Bay, where they usually remain as late as December, feeding, when the ground is covered with snow, on the buds of the juniper. They spread over the whole of Canada; were seen by Captain Lewis and his party near the Great Falls of the Missouri, upwards

of two thousand five hundred miles from its mouth, reckoning the meanderings of the river; were also met with in the interior of Louisiana by Colonel Pike; and extend their range as far south as the Gulf of Mexico, occasionally visiting or breeding in almost every quarter of the United States.

But the most remarkable characteristic of these birds is their associating together, both in their migrations, and also during the period of incubation, in such prodigious numbers, as almost to surpass belief; and which has no parallel among any other of the feathered tribes on the face of the earth, with which all naturalists are acquainted. These migrations appear to be undertaken rather in quest of food, than merely to avoid the cold of the climate, since we find them lingering in the northern regions, around Hudson's Bay, so late as December; and since their appearance is so casual and irregular, sometimes not visiting certain districts for several years in any considerable numbers, while at other times they are innumerable. I have witnessed these migrations in the Genesee country, often in Pennsylvania, and also in various parts of Virginia, with amazement; but all that I had then seen of them were mere straggling parties, when compared with the congregated millions which I have since beheld in our Western forests, in the States of Ohio, Kentucky, and the Indiana territory. These fertile and extensive regions abound with the nutritious beechnut, which constitutes the chief food of

the wild pigeon. In seasons when these nuts are abundant, corresponding multitudes of pigeons may be confidently expected. It sometimes happens that, having consumed the whole produce of the beech trees, in an extensive district, they discover another, at the distance perhaps of sixty or eighty miles, to which they regularly repair every morning, and return as regularly in the course of the day, or in the evening, to their place of general rendezvous, or as it is usually called, the roosting place. These roosting places are always in the woods, and sometimes occupy a large extent of forest. When they have frequented one of these places for some time the appearance it exhibits is surprising. The ground is covered to the depth of several inches with their dung; all the tender grass and underwood destroyed; the surface strewn with large limbs of trees, broken down by the weight of the birds clustering one above another; and the trees themselves, for thousands of acres, killed as completely as if girdled with an ax. The marks of this desolation remain for many years on the spot; and numerous places could be pointed out, where, for several years after, scarcely a single vegetable made its appearance.

When these roosts are first discovered, the inhabitants, from considerable distances, visit them in the night with guns, clubs, long poles, pots of sulphur, and various other engines of destruction. In a few hours they fill many sacks, and load their horses with them.

By the Indians, a pigeon roost, or breeding place, is considered an important source of national profit and dependence for the season; and all their active ingenuity is exercised on the occasion. The breeding place differs from the former in its greater extent. In the western countries above mentioned, these are generally in beech woods, and often extend, in nearly a straight line across the country for a great way. Not far from Shelbyville, in the State of Kentucky, about five years ago, there was one of these breeding places, which stretched through the woods in nearly a north and south direction; was several miles in breadth, and was said to be upwards of forty miles in extent! In this tract almost every tree was furnished with nests, wherever the branches could accommodate them. The pigeons made their first appearance there about the 10th of April, and left it altogether, with their young, before the 29th of May.

As soon as the young were fully grown, and before they left the nests, numerous parties of the inhabitants from all parts of the adjacent country came with wagons, axes, beds, cooking utensils, many of them accompanied by the greater part of their families, and encamped for several days at this immense nursery. Several of them informed me that the noise in the woods was so great as to terrify their horses, and that it was difficult for one person to hear another speak without bawling in his ear. The ground was strewn with broken limbs

of trees, eggs, and young squab pigeons, which had been precipitated from above, and on which herds of hogs were fattening. Hawks, buzzards, and eagles were sailing about in great numbers, and seizing the squabs from their nests at pleasure; while from twenty feet upwards to the tops of the trees the view through the woods presented a perpetual tumult of crowding and fluttering multitudes of pigeons, their wings roaring like thunder, mingled with the frequent crash of falling timber; for now the ax-men were at work cutting down those trees that seemed to be most crowded with nests, and contrived to fell them in such a manner that, in their descent, they might bring down several others; by which means the falling of one large tree sometimes produced two hundred squabs, little inferior in size to the old ones, and almost one mass of fat. On some single trees upwards of one hundred nests were found, each containing *one* young only; a circumstance in the history of this bird not generally known to naturalists. It was dangerous to walk under these flying and fluttering millions, from the frequent fall of large branches, broken down by the weight of the multitudes above, and which, in their descent, often destroyed numbers of the birds themselves; while the clothes of those engaged in traversing the woods were completely covered with the excrements of the pigeons.

These circumstances were related to me by many of the most respectable part of the community in that

quarter, and were confirmed, in part, by what I myself witnessed. I passed for several miles through this same breeding place, where every tree was spotted with nests, the remains of those above described. In many instances I counted upwards of ninety nests on a single tree, but the pigeons had abandoned this place for another, sixty or eighty miles off towards Green River, where they were said at that time to be equally numerous. From the great numbers that were constantly passing overhead to or from that quarter, I had no doubt of the truth of this statement. The mast had been chiefly consumed in Kentucky, and the pigeons, every morning a little before sunrise, set out for the Indiana territory, the nearest part of which was about sixty miles distant. Many of these returned before ten o'clock, and the great body generally appeared on their return a little after noon.

I had left the public road to visit the remains of the breeding place near Shelbyville, and was traversing the woods with my gun, on my way to Frankfort, when, about one o'clock, the pigeons, which I had observed flying the greater part of the morning northerly, began to return in such immense numbers as I never before had witnessed. Coming to an opening by the side of a creek called the Benson, where I had a more uninterrupted view, I was astonished at their appearance. They were flying with great steadiness and rapidity at a height beyond gunshot in several strata deep, and so

close together that could shot have reached them one discharge could not have failed of bringing down several individuals. From right to left, far as the eye could reach, the breadth of this vast procession extended, seeming everywhere equally crowded. Curious to determine how long this appearance would continue, I took out my watch to note the time, and sat down to observe them. It was then half-past one. I sat for more than an hour, but, instead of a diminution of this prodigious procession, it seemed rather to increase both in numbers and rapidity, and, anxious to reach Frankfort before night, I rose and went on. About four o'clock in the afternoon I crossed the Kentucky River at the town of Frankfort, at which time the living torrent above my head seemed as numerous and as extensive as ever. Long after this I observed them in large bodies that continued to pass for six or eight minutes, and these again were followed by other detached bodies, all moving in the same southeast direction, till after six in the evening. The great breadth of front which this mighty multitude preserved would seem to intimate a corresponding breadth of their breeding place, which, by several gentlemen who had lately passed through part of it, was stated to me at several miles. It was said to be in Green County, and that the young began to fly about the middle of March. On the seventeenth of April, forty-nine miles beyond Danville, and not far from Green River, I crossed this

same breeding place, where the nests, for more than three miles, spotted every tree; the leaves not being yet out I had a fair prospect of them, and was really astonished at their numbers. A few bodies of pigeons lingered yet in different parts of the woods, the roaring of whose wings were heard in various quarters around me.

All accounts agree in stating that each nest contains only one young squab. These are so extremely fat that the Indians, and many of the whites, are accustomed to melt down the fat for domestic purposes as a substitute for butter and lard. At the time they leave the nest they are nearly as heavy as the old ones, but become much leaner after they are turned out to shift for themselves.

It is universally asserted in the western countries that the pigeons, though they have only one young at a time, breed thrice, and sometimes four times in the same season; the circumstances already mentioned render this highly probable. It is also worthy of observation that this takes place during the period when acorns, beech-nuts, etc., are scattered about in the greatest abundance and mellowed by the frost. But they are not confined to these alone; buckwheat, hempseed, Indian corn, hollyberries, hackberries, huckleberries, and many others furnish them with abundance at almost all seasons. The acorns of the live oak are also eagerly sought after by these birds, and rice has been fre-

quently found in individuals killed many hundred miles to the northward of the nearest rice plantation. The vast quantity of mast which these multitudes consume is a serious loss to the bears, pigs, squirrels, and other dependents on the fruits of the forest. I have taken from the crop of a single wild pigeon a good handful of the kernels of beechnuts, intermixed with acorns and chestnuts. To form a rough estimate of the daily consumption of one of these immense flocks let us first attempt to calculate the numbers of that above mentioned, as seen in passing between Frankfort and the Indiana territory. If we suppose this column to have been one mile in breadth (and I believe it to have been much more), and that it moved at the rate of one mile in a minute, four hours, the time it continued passing, would make its whole length two hundred and forty miles. Again, supposing that each square yard of this moving body comprehended three pigeons, the square yards in the whole space, multiplied by three, would give two thousand two hundred and thirty millions, two hundred and seventy-two thousand pigeons!—an almost inconceivable multitude, and yet probably far below the actual amount. Computing each of these to consume half a pint of mast daily, the whole quantity at this rate would equal seventeen millions, four hundred and twenty-four thousand bushels per day! Heaven has wisely and graciously given to these birds rapidity of flight and a disposition to range over vast uncultivated

tracts of the earth, otherwise they must have perished in the districts where they resided, or devoured up the whole productions of agriculture, as well as those of the forests.

A few observations on the mode of flight of these birds must not be omitted. The appearance of large detached bodies of them in the air and the various evolutions they display are strikingly picturesque and interesting. In descending the Ohio by myself in the month of February I often rested on my oars to contemplate their aërial manœuvres. A column, eight or ten miles in length, would appear from Kentucky, high in air, steering across to Indiana. The leaders of this great body would sometimes gradually vary their course until it formed a large bend of more than a mile in diameter, those behind tracing the exact route of their predecessors. This would continue sometimes long after both extremities were beyond the reach of sight, so that the whole, with its glittery undulations, marked a space on the face of the heavens resembling the windings of a vast and majestic river. When this bend became very great the birds, as if sensible of the unnecessary circuitous course they were taking, suddenly changed their direction, so that what was in column before, became an immense front, straightening all its indentures, until it swept the heavens in one vast and infinitely extended line. Other lesser bodies also united with each other as they happened to approach

with such ease and elegance of evolution, forming new figures, and varying these as they united or separated, that I never was tired of contemplating them. Sometimes a hawk would make a sweep on a particular part of the column from a great height, when, almost as quick as lightning, that part shot downwards out of the common track, but soon rising again, continued advancing at the same height as before. This inflection was continued by those behind, who, on arriving at this point, dived down, almost perpendicularly, to a great depth, and rising, followed the exact path of those that went before. As these vast bodies passed over the river near me, the surface of the water, which was before smooth as glass, appeared marked with innumerable dimples, occasioned by the dropping of their dung, resembling the commencement of a shower of large drops of rain or hail.

Happening to go ashore one charming afternoon, to purchase some milk at a house that stood near the river, and while talking with the people within doors, I was suddenly struck with astonishment at a loud rushing roar, succeeded by instant darkness, which, on the first moment, I took for a tornado about to overwhelm the house and everything around in destruction. The people, observing my surprise, coolly said: "It is only the pigeons"; and on running out I beheld a flock, thirty or forty yards in width, sweeping along very low between the house and the mountain, or height, that formed the

second bank of the river. These continued passing for more than a quarter of an hour, and at length varied their bearing so as to pass over the mountain, behind which they disappeared before the rear came up.

In the Atlantic States, though they never appear in such unparalleled multitudes, they are sometimes very numerous, and great havoc is then made amongst them with the gun, the clap net, and various other implements of destruction. As soon as it is ascertained in a town that the pigeons are flying numerously in the neighborhood, the gunners rise *en masse*, the clap nets are spread out on suitable situations, commonly on an open height in an old buckwheat field; four or five live pigeons, with their eyelids sewed up, are fastened on a movable stick—a small hut of branches is fitted up for the fowler at the distance of forty or fifty yards—by the pulling of a string the stick on which the pigeons rest is alternately elevated and depressed, which produces a fluttering of their wings similar to that of birds just alighting; this being perceived by the passing flocks they descend with great rapidity, and, finding corn, buckwheat, etc., strewed about, begin to feed, and are instantly, by the pulling of a cord, covered by the net. In this manner ten, twenty, and even thirty dozen have been caught at one sweep. Meantime the air is darkened with large bodies of them moving in various directions; the woods also swarm with them in search of acorns; and the thundering of musketry is perpetual on

all sides from morning to night. Wagon loads of them are poured into market, where they sell from fifty to twenty-five and even twelve cents per dozen; and pigeons become the order of the day at dinner, breakfast and supper, until the very name becomes sickening. When they have been kept alive and fed for some time on corn and buckwheat their flesh acquires great superiority; but, in their common state, they are dry and blackish and far inferior to the full grown young ones or squabs.

The nest of the wild pigeon is formed of a few dry slender twigs, carelessly put together, and with so little concavity that the young one, when half grown, can easily be seen from below. The eggs are pure white. Great numbers of hawks, and sometimes the bald eagle himself, hover above those breeding places, and seize the old or the young from the nest amidst the rising multitudes, and with the most daring effrontery. The young, when beginning to fly, confine themselves to the under part of the tall woods where there is no brush, and where nuts and acorns are abundant, searching among the leaves for mast, and appear like a prodigious torrent rolling through the woods, every one striving to be in the front. Vast numbers of them are shot while in this situation. A person told me that he once rode furiously into one of these rolling multitudes and picked up thirteen pigeons which had been trampled to death by his horse's feet. In a few minutes they will

beat the whole nuts from a tree with their wings, while all is a scramble, both above and below, for the same. They have the same cooing notes common to domestic pigeons, but much less of their gesticulations. In some flocks you will find nothing but young ones, which are easily distinguishable by their motley dress. In others they will be mostly females, and again great multitudes of males with few or no females. I cannot account for this in any other way than that, during the time of incubation, the males are exclusively engaged in procuring food, both for themselves and their mates, and the young, being yet unable to undertake these extensive excursions, associate together accordingly. But even in winter I know of several species of birds who separate in this manner, particularly the red-winged starling, among whom thousands of old males may be found with few or no young or females along with them.

Stragglers from these immense armies settle in almost every part of the country, particularly among the beech woods and in the pine and hemlock woods of the eastern and northern parts of the continent. Mr. Pennant informs us that they breed near Moose Fort, at Hudson's Bay, in N. latitude 51 degrees, and I myself have seen the remains of a large breeding place as far south as the country of the Choctaws, in latitude 32 degrees. In the former of these places they are said to remain until December; from which circumstance it is evident that they are not regular in their migrations

like many other species, but rove about as scarcity of food urges them. Every spring, however, as well as fall, more or less of them are seen in the neighborhood of Philadelphia; but it is only once in several years that they appear in such formidable bodies; and this commonly when the snows are heavy to the north, the winter here more than usually mild, and acorns, etc., abundant.

The passenger pigeon is sixteen inches long, and twenty-four inches in extent; bill, black; nostril, covered by a high rounding protuberance; eye, brilliant fiery orange; orbit, or space surrounding it, purplish flesh-colored skin; head, upper part of the neck and chin, a fine slate blue, lightest on the chin; throat, breast, and sides, as far as the thighs, a reddish hazel; lower part of the neck and sides of the same, resplendent changeable gold, green, and purplish crimson, the last named most predominant; the ground color, slate; the plumage of this part is of a peculiar structure, ragged at the ends; belly and vent, white; lower part of the breast, fading into a pale vinaceous red; thighs, the same; legs and feet, lake, seamed with white; back, rump, and tail-coverts, dark slate, spotted on the shoulders with a few scattered marks of black; the scapulars, tinged with brown; greater coverts, light slate; primaries and secondaries, dull black, the former tipped and edged with brownish white; tail, long, and greatly cuneiform, all the feathers tapering towards the point, the two middle ones plain deep black, the other five, on each side,

hoary white, lightest near the tips, deepening into bluish near the bases, where each is crossed on the inner vane with a broad spot of black, and nearer the root with another of ferruginous; primaries edged with white; bastard wing, black.

The female is about half an inch shorter, and an inch less in extent; breast, cinerous brown; upper part of the neck, inclining to ash; the spot of changeable gold, green, and carmine, much less, and not so brilliant; tail coverts, brownish slate; naked orbits, slate colored; in all other respects like the male in color, but less vivid and more tinged with brown; the eye not so brilliant an orange. In both the tail has only twelve feathers.



PASSENGER PIGEON (*Columba Migratoria*)

Upper bird, female; lower, male

Reproduced from the John J. Audubon Plate



CHAPTER III

The Passenger Pigeon

From "Ornithological Biography," by John James Audubon

THE Passenger Pigeon, or, as it is usually named in America, the Wild Pigeon, moves with extreme rapidity, propelling itself by quickly repeated flaps of the wings, which it brings more or less near to the body, according to the degree of velocity which is required. Like the domestic pigeon, it often flies, during the love season, in a circling manner, supporting itself with both wings angularly elevated, in which position it keeps them until it is about to alight. Now and then, during these circular flights, the tips of the primary quills of each wing are made to strike against each other, producing a smart rap, which may be heard at a distance of thirty or forty yards. Before alighting, the wild pigeon, like the Carolina parrot and a few other species of birds, breaks the force of its flight by repeated flappings, as if apprehensive of receiving injury from coming too suddenly into contact with the branch or the spot of ground on which it intends to settle.

I have commenced my description of this species with

the above account of its flight, because the most important facts connected with its habits relate to its migrations. These are entirely owing to the necessity of procuring food, and are not performed with the view of escaping the severity of a northern latitude, or of seeking a southern one for the purpose of breeding. They consequently do not take place at any fixed period or season of the year. Indeed, it sometimes happens that a continuance of a sufficient supply of food in one district will keep these birds absent from another for years. I know, at least, to a certainty, that in Kentucky they remained for several years constantly, and were nowhere else to be found. They all suddenly disappeared one season when the mast was exhausted and did not return for a long period. Similar facts have been observed in other States.

Their great power of flight enables them to survey and pass over an astonishing extent of country in a very short time. This is proved by facts well-known in America. Thus, pigeons have been killed in the neighborhood of New York, with their crops full of rice, which they must have collected in the fields of Georgia and Carolina, these districts being the nearest in which they could possibly have procured a supply of that kind of food. As their power of digestion is so great that they will decompose food entirely in twelve hours, they must in this case have traveled between three hundred and four hundred miles in six hours, which

shows their power of speed to be at an average about one mile in a minute. A velocity such as this would enable one of these birds, were it so inclined, to visit the European continent in less than three days.

This great power of flight is seconded by as great a power of vision, which enables them, as they travel at that swift rate, to inspect the country below, discover their food with facility, and thus attain the object for which their journey has been undertaken. This I have also proved to be the case, by having observed them, when passing over a sterile part of the country, or one scantily furnished with food suited to them, keep high in the air, flying with an extended front, so as to enable them to survey hundreds of acres at once. On the contrary, when the land is richly covered with food, or the trees abundantly hung with mast, they fly low, in order to discover the part most plentifully supplied.

Their body is of an elongated oval form, steered by a long, well-plumed tail, and propelled by well-set wings, the muscles of which are very large and powerful for the size of the bird. When an individual is seen gliding through the woods and close to the observer, it passes like a thought, and on trying to see it again, the eye searches in vain; the bird is gone.

The multitudes of wild pigeons in our woods are astonishing. Indeed, after having viewed them so often, and under so many circumstances, I even now feel inclined to pause, and assure myself that what I

am going to relate is fact. Yet I have seen it all, and that, too, in the company of persons who, like myself, were struck with amazement.

In the autumn of 1813, I left my house at Henderson, on the banks of the Ohio, on my way to Louisville. In passing over the Barrens a few miles beyond Hardensburgh, I observed the pigeons flying from northeast to southwest, in greater numbers than I thought I had ever seen them before, and feeling an inclination to count the flocks that might pass within the reach of my eye in one hour, I dismounted, seated myself on an eminence, and began to mark with my pencil, making a dot for every flock that passed. In a short time, finding the task which I had undertaken impracticable, as the birds poured in in countless multitudes, I rose, and counting the dots then put down, found that one hundred and sixty-three had been made in twenty-one minutes. I traveled on, and still met more the farther I proceeded. The air was literally filled with pigeons; the light of noonday was obscured as by an eclipse; the dung fell in spots, not unlike melting flakes of snow; and the continued buzz of wings had a tendency to lull my senses to repose.

Whilst waiting for dinner at Young's Inn, at the confluence of Salt River with the Ohio, I saw, at my leisure, immense legions still going by, with a front reaching far beyond the Ohio on the west, and the beechwood forests directly on the east of me. Not a single bird

alighted; for not a nut or acorn was that year to be seen in the neighborhood. They consequently flew so high, that different trials to reach them with a capital rifle proved ineffectual; nor did the reports disturb them in the least. I cannot describe to you the extreme beauty of their aerial evolutions, when a hawk chanced to press upon the rear of the flock. At once, like a torrent, and with a noise like thunder, they rushed into a compact mass, pressing upon each other towards the center. In these almost solid masses, they darted forward in undulating and angular lines, descended and swept close over the earth with inconceivable velocity, mounted perpendicularly so as to resemble a vast column, and, when high, were seen wheeling and twisting within their continued lines, which then resembled the coils of a gigantic serpent.

Before sunset I reached Louisville, distant from Hardensburgh fifty-five miles. The pigeons were still passing in undiminished numbers, and continued to do so for three days in succession. The people were all in arms. The banks of the Ohio were crowded with men and boys, incessantly shooting at the pilgrims, which there flew lower as they passed the river. Multitudes were thus destroyed. For a week or more, the population fed on no other flesh than that of pigeons, and talked of nothing but pigeons. The atmosphere, during this time, was strongly impregnated with the peculiar odor which emanates from the species.

It is extremely interesting to see flock after flock performing exactly the same evolutions which had been traced as it were in the air by a preceding flock. Thus, should a hawk have charged on a group at a certain spot, the angles, curves and undulations that have been described by the birds, in their efforts to escape from the dreaded talons of the plunderer, are undeviatingly followed by the next group that comes up. Should the bystander happen to witness one of these affrays, and, struck with the rapidity and elegance of the motions exhibited, feel desirous of seeing them repeated, his wishes will be gratified if he only remain in the place until the next group comes up.

It may not, perhaps, be out of place to attempt an estimate of the number of pigeons contained in one of those mighty flocks, and of the quantity of food daily consumed by its members. The inquiry will tend to show the astonishing beauty of the great Author of Nature in providing for the wants of His creatures. [Let us take a column of one mile in breadth, which is far below the average size, and suppose it passing over us without interruption for three hours, at the rate mentioned above of one mile in a minute. This will give a parallelogram of one hundred and eighty by one, covering one hundred and eighty square miles. Allowing two pigeons to the square yard, we have one billion, one hundred and fifty millions, one hundred and thirty-six thousand pigeons in one flock.] As every

pigeon daily consumes fully half a pint of food, the quantity necessary for supplying this vast multitude must be eight millions, seven hundred and twelve thousand bushels per day.

As soon as the pigeons discover a sufficiency of food to entice them to alight, they fly around in circles, reviewing the country below. During their evolutions, on such occasions, the dense mass which they form exhibits a beautiful appearance, as it changes its direction, now displaying a glistening sheet of azure, when the backs of the birds come simultaneously into view, and anon, suddenly presenting a mass of rich deep purple. They then pass lower, over the woods, and for a moment are lost among the foliage, but again emerge, and are seen gliding aloft. They now alight, but the next moment, as if suddenly alarmed, they take to wing, producing by the flapping of their wings a noise like the roar of distant thunder, and sweep through the forests to see if danger is near. Hunger, however, soon brings them to the ground. When alighted, they are seen industriously throwing up the withered leaves in quest of the fallen mast. The rear ranks are continually rising, passing over the main body, and alighting in front, in such rapid succession, that the whole flock seems still on the wing. The quantity of ground thus swept is astonishing, and so completely has it been cleared, that the gleaner who might follow in their rear would find his labor completely lost. Whilst feeding,

their avidity is at times so great that in attempting to swallow a large acorn or nut, they are seen gasping for a long while, as if in agonies of suffocation.

On such occasions, when the woods are filled with these pigeons, they are killed in immense numbers, although no apparent diminution ensues. About the middle of the day, after their repast is finished, they settle on the trees, to enjoy rest, and digest their food. On the ground they walk with ease, as well as on the branches, frequently jerking their beautiful tail, and moving the neck backwards and forwards in the most graceful manner. As the sun begins to sink beneath the horizon, they depart *en masse* for the roosting place, which not infrequently is hundreds of miles distant, as has been ascertained by persons who have kept an account of their arrivals and departures.

Let us now, kind reader, inspect their place of nightly rendezvous. One of these curious roosting places, on the banks of the Green River in Kentucky, I repeatedly visited. It was, as is always the case, in a portion of the forest where the trees were of great magnitude, and where there was little underwood. I rode through it upwards of forty miles, and, crossing it in different parts, found its average breadth to be rather more than three miles. My first view of it was about a fortnight subsequent to the period when they had made choice of it, and I arrived there nearly two hours before sunset. Few pigeons were then to be seen, but a great number

of persons, with horses and wagons, guns and ammunition, had already established encampments on the borders.

Two farmers from the vicinity of Russelsville, distant more than a hundred miles, had driven upwards of three hundred hogs to be fattened on the pigeons which were to be slaughtered. Here and there, the people employed in plucking and salting what had already been procured, were seen sitting in the midst of large piles of these birds. The dung lay several inches deep, covering the whole extent of the roosting place, like a bed of snow. Many trees two feet in diameter, I observed, were broken off at no great distance from the ground; and the branches of many of the largest and tallest had given way, as if the forest had been swept by a tornado. Everything proved to me that the number of birds resorting to this part of the forest must be immense beyond conception. As the period of their arrival approached, their foes anxiously prepared to receive them. Some were furnished with iron pots containing sulphur, others with torches of pine knots, many with poles, and the rest with guns. The sun was lost to our view, yet not a pigeon had arrived. Everything was ready, and all eyes were gazing on the clear sky, which appeared in glimpses amidst the tall trees. Suddenly there burst forth a general cry of "Here they come!" The noise which they made, though yet distant, reminded me of a hard gale at sea

passing through the rigging of a close-reefed vessel. As the birds arrived and passed over me, I felt a current of air that surprised me. Thousands were seen knocked down by the pole-men. The birds continued to pour in. The fires were lighted, and a magnificent, as well as wonderful and almost terrifying sight presented itself. The pigeons, arriving by thousands, alighted everywhere, one above another, until solid masses as large as hogsheads were formed on the branches all round. Here and there the perches gave way under the weight with a crash, and, falling to the ground destroyed hundreds of the birds beneath, forcing down the dense groups with which every stick was loaded. It was a scene of uproar and confusion. I found it quite useless to speak, or even to shout to those persons who were nearest to me. Even the reports of the guns were seldom heard, and I was made aware of the firing only by seeing the shooters reloading.

No one dared venture within the line of devastation. The hogs had been penned up in due time, the picking up of the dead and wounded being left for the next morning's employment. The pigeons were constantly coming, and it was past midnight before I perceived a decrease in the number of those that arrived. The uproar continued the whole night; and as I was anxious to know to what distance the sound reached, I sent off a man, accustomed to perambulate the forest, who, returning two hours afterwards, informed me he had

heard it distinctly when three miles distant from the spot. Toward the approach of day, the noise in some measure subsided, long before objects were distinguishable, the pigeons began to move off in a direction quite different from that in which they had arrived the evening before, and at sunrise all that were able to fly had disappeared. The howlings of the wolves now reached our ears, and the foxes, lynxes, cougars, bears, raccoons, opossums, and pole-cats were seen sneaking off, whilst eagles and hawks of different species, accompanied by a crowd of vultures, came to supplant them and enjoy their share of the spoil.

It was then that the authors of all this devastation began their entry amongst the dead, the dying and the mangled. The pigeons were picked up and piled in heaps, until each had as many as he could possibly dispose of, when the hogs were let loose to feed on the remainder.]

[Persons unacquainted with these birds might naturally conclude that such dreadful havoc would soon put an end to the species. But I have satisfied myself, by long observation, that nothing but the gradual diminution of our forests can accomplish their decrease, as they not infrequently quadruple their numbers yearly, and always at least double it.] In 1805 I saw schooners loaded in bulk with pigeons caught up the Hudson River, coming into the wharf at New York, when the birds sold for a cent apiece. I knew a man in Penn-

sylvania, who caught and killed upward of five hundred dozens in a clap net in one day, sweeping sometimes twenty dozens or more at a single haul. In the month of March, 1830, they were so abundant in the markets of New York, that piles of them met the eye in every direction. I have seen the negroes at the United States' Salines or Saltworks of Shawnee Town, wearied with killing pigeons, as they alighted to drink the water issuing from the leading pipes, for weeks at a time; and yet in 1826, in Louisiana, I saw congregated flocks of these birds as numerous as ever I had seen them before, during a residence of nearly thirty years in the United States.

The breeding of the wild pigeons, and the places chosen for that purpose, are points of great interest. The time is not much influenced by season, and the place selected is where food is most plentiful and most attainable, and always at a convenient distance from water. Forest trees of great height are those in which the pigeons form their nests. Thither the countless myriads resort, and prepare to fulfill one of the great laws of nature. At this period the note of the pigeon is a soft coo-coo-coo-coo much shorter than that of the domestic species. The common notes resemble the monosyllables kee-kee-kee-kee, the first being the loudest, the others gradually diminishing in power. The male assumes a pompous demeanor, and follows the female whether on the ground or on the branches, with spread tail and

drooping wings, which it rubs against the part over which it is moving. The body is elevated, the throat swells, the eyes sparkle. He continues his notes, and now and then rises on the wing, and flies a few yards to approach the fugitive and timorous female. Like the domestic pigeon and other species, they caress each other by billing, in which action, the bill of the one is introduced transversely into that of the other, and both parties alternately disgorge the contents of their crops by repeated efforts. These preliminary affairs are soon settled, and the pigeons commence their nests in general peace and harmony. They are composed of a few dry twigs, crossing each other, and are supported by forks of the branches. On the same tree from fifty to a hundred nests may frequently be seen: I might say a much greater number, were I not anxious, kind reader, that however wonderful my account of the wild pigeons is, you may not feel disposed to refer it to the marvelous. The eggs are two in number, of a broadly elliptical form, and pure white. During incubation, the male supplies the female with food. Indeed, the tenderness and affection displayed by these birds toward their mates, are in the highest degree striking. It is a remarkable fact that each brood generally consists of a male and a female.

Here again, the tyrant of the creation, man, interferes, disturbing the harmony of this peaceful scene. As the young birds grow up, their enemies armed with

axes, reach the spot, to seize and destroy all they can. The trees are felled, and made to fall in such a way that the cutting of one causes the overthrow of another, or shakes the neighboring trees so much, that the young pigeons, or squabs, as they are named, are violently hurled to the ground. In this manner, also, immense quantities are destroyed.

The young are fed by the parents in the manner described above; in other words, the old bird introduces its bill into the mouth of the young one in a transverse manner, or with the back of each mandible opposite the separations of the mandibles of the young bird, and disgorges the contents of its crop. As soon as the young birds are able to shift for themselves, they leave their parents, and continue separate until they attain maturity. By the end of six months they are capable of reproducing their species.

The flesh of the wild pigeon is of a dark color, but affords tolerable eating. That of young birds from the nest is much esteemed. The skin is covered with small white filmy scales. The feathers fall off at the least touch, as has been remarked to be the case in the Carolina Turtle. I have only to add that this species, like others of the same genus, immerses its head up to the eyes while drinking.

In March, 1830, I bought about three hundred and fifty of these birds in the market of New York, at four cents apiece. Most of these I carried alive to England,

and distributed among several noblemen, presenting some at the same time to the Zoölogical Society.

ADULT MALE

Bill—straight, of ordinary length, rather slender, broader than deep at the base, with a tumid, fleshy covering above, compressed toward the end, rather obtuse; upper mandible slightly declinate at the tip, edges inflected. Head—small; neck, slender; body, rather full. Legs—short and strong; tarsus, rather rounded; anteriorly scutellate; toes, slightly webbed at the base; claws, short, depressed, obtuse.

Plumage—blended on the neck and under parts, compact on the back. Wings—long, the second quill longest. Tail—graduated, of twelve tapering feathers.

Bill—black. Iris—bright red. Feet—carmine purple, claws blackish. Head—above and on the sides light blue. Throat, fore-neck, breast, and sides—light brownish-red, the rest of the under parts white. Lower part of the neck behind, and along the sides, changing to gold, emerald green, and rich crimson. The general color of the upper parts is grayish-blue, some of the wing-coverts marked with a black spot. Quills and larger wing-coverts blackish, the primary quills bluish in the outer web, the larger coverts whitish at the tip. The two middle feathers of the tail black, the rest pale blue at the base, becoming white toward the end.

Length, $16\frac{3}{4}$ inches; extent of wings, 25; bill, along

the ridge, 5-6, along the gap, 1 1-12; tarsus, 1 $\frac{1}{4}$; middle toe, 1 1-3.

ADULT FEMALE

The colors of the female are much duller than those of the male, although their distribution is the same. The breast is light grayish-brown, the upper parts pale reddish-brown, tinged with blue. The changeable spot on the neck is of less extent, and the eye of a somewhat duller red, as are the feet.

Length, 15 inches; extent of wings, 23; bill, along the ridge, 3-4; along the gap, 5-6.

CHAPTER IV

As James Fenimore Cooper Saw It

ONE of the most graphic descriptions ever written of a pigeon flight and slaughter is to be found in Cooper's novel, "The Pioneers," from which I make the following extracts:

"See, cousin Bess! see, Duke, the pigeon-roosts of the south have broken up! They are growing more thick every instant. Here is a flock that the eye cannot see the end of. There is food enough in it to keep the army of Xerxes for a month and feathers enough to make beds for the whole country. . . . The reports of the firearms became rapid, whole volleys rising from the plain, as flocks of more than ordinary numbers darted over the opening, shadowing the field like a cloud; and then the light smoke of a single piece would issue from among the leafless bushes on the mountain, as death was hurled on the retreat of the affrighted birds, who were rising from a volley, in a vain effort to escape. Arrows and missiles of every kind were in the midst of the flocks; and so numerous were the birds, and so low did they take their flight, that even long poles, in the hands of those on the sides of the moun-

tain, were used to strike them to the earth. . . . So prodigious was the number of the birds, that the scattering fire of the guns, with the hurtling missiles, and the cries of the boys, had no other effect than to break off small flocks from the immense masses that continued to dart along the valley, as if the whole of the feathered tribe were pouring through that one pass. None pretended to collect the game, which lay scattered over the fields in such profusion as to cover the very ground with the fluttering victims."

The slaughter described finally ended with a grand finale when an old swivel gun was "loaded with handful of bird-shot," and fired into the mass of pigeons with such fatal effect that there were birds enough killed and wounded on the ground to feed the whole settlement.

The following description is from "The Chain-bearer," also by J. Fenimore Cooper. The region of which he writes is in Central New York.

"I scarce know how to describe the remarkable scene. As we drew near to the summit of the hill, pigeons began to be seen fluttering among the branches over our heads, as individuals are met along the roads that lead into the suburbs of a large town. We had probably seen a thousand birds glancing around among the trees, before we came in view of the roost itself. The numbers increased as we drew nearer, and presently the forest was alive with them.

“The fluttering was incessant, and often startling as we passed ahead, our march producing a movement in the living crowd, that really became confounding. Every tree was literally covered with nests, many having at least a thousand of these frail tenements on their branches, and shaded by the leaves. They often touched each other, a wonderful degree of order prevailing among the hundreds of thousands of families that were here assembled.

“ The place had the odor of a fowl-house, and squabs just fledged sufficiently to trust themselves in short flights, were fluttering around us in all directions, in tens of thousands. To these were to be added the parents of the young race endeavoring to protect them and guide them in a way to escape harm. Although the birds rose as we approached, and the woods just around us seemed fairly alive with pigeons, our presence produced no general commotion; every one of the feathered throng appearing to be so much occupied with its own concerns, as to take little heed of the visit of a party of strangers, though of a race usually so formidable to their own.

“ The masses moved before us precisely as a crowd of human beings yields to a pressure or a danger on any given point; the vacuum created by its passage filling in its rear as the water of the ocean flows into the track of the keel.

“ The effect on most of us was confounding, and I

can only compare the sensation produced on myself by the extraordinary tumult to that a man experiences at finding himself suddenly placed in the midst of an excited throng of human beings. The unnatural disregard of our persons manifested by the birds greatly heightened the effect, and caused me to feel as if some unearthly influence reigned in the place. It was strange, indeed, to be in a mob of the feathered race, that scarce exhibited a consciousness of one's presence. The pigeons seemed a world of themselves, and too much occupied with their own concerns to take heed of matters that lay beyond them.

“Not one of our party spoke for several minutes. Astonishment seemed to hold us all tongue-tied, and we moved slowly forward into the fluttering throng, silent, absorbed, and full of admiration of the works of the Creator. It was not easy to hear each others' voices when we did speak, the incessant fluttering of wings filling the air. Nor were the birds silent in other respects.

“The pigeon is not a noisy creature, but a million crowded together on the summit of one hill, occupying a space of less than a mile square, did not leave the forest in its ordinary impressive stillness. As we advanced, I offered my arm, almost unconsciously again to Dus, and she took it with the same abstracted manner as that in which it had been held forth for her acceptance. In this relation to each other, we continued to follow the

grave-looking Onondago, as he moved, still deeper and deeper, into the midst of the fluttering tumult.

* * * * *

“While standing wondering at the extraordinary scene around us, a noise was heard rising above that of the incessant fluttering which I can only liken to that of the trampling of thousands of horses on a beaten road. This noise at first sounded distant, but it increased rapidly in proximity and power, until it came rolling in upon us, among the tree-tops, like a crash of thunder. The air was suddenly darkened, and the place where we stood as somber as a dusky twilight. At the same instant, all the pigeons near us, that had been on their nests, appeared to fall out of them, and the space immediately above our heads was at once filled with birds.

“Chaos itself could hardly have represented greater confusion, or a greater uproar. As for the birds, they now seemed to disregard our presence entirely; possibly they could not see us on account of their own numbers, for they fluttered in between Dus and myself, hitting us with their wings, and at times appearing as if about to bury us in avalanches of pigeons. Each of us caught one at least in our hands, while Chainbearer and the Indian took them in some numbers, letting one prisoner go as another was taken. In a word, we seemed to be in a world of pigeons. This part of the scene may

have lasted a minute, when the space around us was suddenly cleared, the birds glancing upward among the branches of the trees, disappearing among the foliage. All this was the effect produced by the return of the female birds, which had been off at a distance, some twenty miles at least, to feed on beechnuts, and which now assumed the places of the males on the nests; the latter taking a flight to get their meal in their turn.

“I have since had the curiosity to make a sort of an estimate of the number of the birds that must have come in upon the roost, in that, to us, memorable moment. Such a calculation, as a matter of course, must be very vague, though one may get certain principles by estimating the size of a flock by the known rapidity of the flight, and other similar means; and I remember that Frank Malbone and myself supposed that a million of birds must have come in on that return, and as many departed! As the pigeon is a very voracious bird, the question is apt to present itself, where food is obtained for so many mouths; but, when we remember the vast extent of the American forests, this difficulty is at once met. Admitting that the colony we visited contained many millions of birds, and, counting old and young, I have no doubt it did, there was probably a fruit-bearing tree for each, within an hour’s flight from that very spot!

“Such is the scale on which Nature labors in the wilderness! I have seen insects fluttering in the air at

particular seasons, and at particular places, until they formed little clouds; a sight every one must have witnessed on many occasions; and as those insects appeared, on their diminished scale, so did the pigeons appear to us at the roost of Mooseridge.”

CHAPTER V

The Wild Pigeon of North America

By Chief Pokagon,* from "The Chautauquan," November, 1895.
Vol. 22. No. 20.

THE migratory or wild pigeon of North America was known by our race as *O-me-me-wog*. Why the European race did not accept that name was, no doubt, because the bird so much resembled the domesticated pigeon; they naturally called it a wild pigeon, as they called us wild men.

This remarkable bird differs from the dove or domesticated pigeon, which was imported into this country, in the grace of its long neck, its slender bill and legs, and its narrow wings. Its tail is eight inches long, having twelve feathers, white on the under side. The two center feathers are longest, while five arranged on either side diminished gradually each one-half inch in length,

*Simon Pokagon, of Michigan, is a full-blooded Indian, the last Pottawattomie chief of the Pokagon band. He is author of the "Red Man's Greeting," and has been called by the press the "Redskin poet, bard, and Longfellow of his race." His father, chief before him, sold the site of Chicago and the surrounding country to the United States in 1833 for three cents an acre. He was the first red man to visit President Lincoln after his inauguration. In a letter written home at the time he said: "I have met Lincoln, the great chief; he is very tall, has a sad face, but he is a good man, I saw it in his eyes and felt it in his hand-shaking. He will help us get

giving to the tail when spread an almost conical appearance. Its back and upper part of the wings and head are a darkish blue, with a silken velvety appearance. Its neck is resplendent in gold and green with royal purple intermixed. Its breast is reddish-brown, fading toward the belly into white. Its tail is tipped with white, intermixed with bluish-black. The female is one inch shorter than the male, and her color less vivid.

It was proverbial with our fathers that if the Great Spirit in His wisdom could have created a more elegant bird in plumage, form, and movement, He never did. When a young man I have stood for hours admiring the movements of these birds. I have seen them fly in unbroken lines from the horizon, one line succeeding another from morning until night, moving their unbroken columns like an army of trained soldiers pushing to the front, while detached bodies of these birds appeared in different parts of the heavens, pressing forward in haste like raw recruits preparing for battle. At other times I have seen them move in one unbroken column for hours across the sky, like some great river,

payment for Chicago land." Soon after \$39,000 was paid. In 1874 he visited President Grant. He said of him: "I expected he would put on military importance, but he treated me kindly, give me a cigar, and we smoked the pipe of peace together." In 1893 he procured judgment against the United States for over \$100,000 still due on the sale of the Chicago land by his father. He was honored on Chicago Day at the World's Fair by first ringing the new Bell of Liberty and speaking in behalf of his race to the greatest crowd ever assembled on earth. After his speech "Glory Hallelujah" was sung before the bell for the first time on the Fair grounds.

ever varying in hue; and as the mighty stream, sweeping on at sixty miles an hour, reached some deep valley, it would pour its living mass headlong down hundreds of feet, sounding as though a whirlwind was abroad in the land. I have stood by the grandest waterfall of America and regarded the descending torrents in wonder and astonishment, yet never have my astonishment, wonder, and admiration been so stirred as when I have witnessed these birds drop from their course like meteors from heaven.

While feeding, they always have guards on duty, to give alarm of danger. It is made by the watch-bird as it takes its flight, beating its wings together in quick succession, sounding like the rolling beat of a snare drum. Quick as thought each bird repeats the alarm with a thundering sound, as the flock struggles to rise, leading a stranger to think a young cyclone is then being born.

. . . About the middle of May, 1850, while in the fur trade, I was camping on the head waters of the Manistee River in Michigan. One morning on leaving my wigwam I was startled by hearing a gurgling, rumbling sound, as though an army of horses laden with sleigh bells was advancing through the deep forests towards me. As I listened more intently I concluded that instead of the tramping of horses it was distant thunder; and yet the morning was clear, calm and beautiful. Nearer and nearer came the strange com-

mingling sounds of sleigh bells, mixed with the rumbling of an approaching storm. While I gazed in wonder and astonishment, I beheld moving toward me in an unbroken front millions of pigeons, the first I had seen that season. They passed like a cloud through the branches of the high trees, through the underbrush and over the ground, apparently overturning every leaf. Statue-like I stood, half-concealed by cedar boughs. They fluttered all about me, lighting on my head and shoulders; gently I caught two in my hands and carefully concealed them under my blanket.

I now began to realize they were mating, preparatory to nesting. It was an event which I had long hoped to witness; so I sat down and carefully watched their movements, amid the greatest tumult. I tried to understand their strange language, and why they all chatted in concert. In the course of the day the great on-moving mass passed by me, but the trees were still filled with them sitting in pairs in convenient crotches of the limbs, now and then gently fluttering their half-spread wings and uttering to their mates those strange, bell-like wooing notes which I had mistaken for the ringing of bells in the distance.

On the third day after, this chattering ceased and all were busy carrying sticks with which they were building nests in the same crotches of the limbs they had occupied in pairs the day before. On the morning of the fourth day their nests were finished and eggs laid. The

hen birds occupied the nests in the morning, while the male birds went out into the surrounding country to feed, returning about ten o'clock, taking the nests, while the hens went out to feed, returning about three o'clock. Again changing nests, the male birds went out the second time to feed, returning at sundown. The same routine was pursued each day until the young ones were hatched and nearly half grown, at which time all the parent birds left the brooding grounds about daylight. On the morning of the eleventh day, after the eggs were laid, I found the nesting grounds strewn with egg shells, convincing me that the young were hatched. In thirteen days more the parent birds left their young to shift for themselves, flying to the east about sixty miles, when they again nested. The female lays but one egg during ✓ the same nesting.

Both sexes secrete in their crops milk or curd with which they feed their young, until they are nearly ready to fly, when they stuff them with mast and such other raw material as they themselves eat, until their crops exceed their bodies in size, giving to them an appearance of two birds with one head. Within two days after the stuffing they become a mass of fat—"a squab." At this period the parent bird drives them from the nests to take care of themselves, while they fly off within a day or two, sometimes hundreds of miles, and again nest.

✓ It has been well established that these birds look after and take care of all orphan squabs whose parents have

been killed or are missing. These birds are long-lived, having been known to live twenty-five years caged. When food is abundant they nest each month in the year.

Their principal food is the mast of the forest, except when curd is being secreted in their crops, at which time they denude the country of snails and worms for miles around the nesting grounds. Because they nest in such immense bodies, they are frequently compelled to fly from fifty to one hundred miles for food.

During my early life I learned that these birds in spring and fall were seen in their migrations from the Atlantic to the Mississippi River. This knowledge, together with my personal observation of their countless numbers, led me to believe they were almost as inexhaustible as the great ocean itself. Of course I had witnessed the passing away of the deer, buffalo, and elk, but I looked upon them as local in their habits, while these birds spanned the continent, frequently nesting beyond the reach of cruel man.

Between 1840 and 1880 I visited in the States of Ohio, Indiana, and Michigan many brooding places that were from twenty to thirty miles long and from three to four miles wide, every tree in its limits being spotted with nests. Yet, notwithstanding their countless numbers, great endurance, and long life, they have almost entirely disappeared from our forests. We strain our eyes in spring and autumn in vain to catch a glimpse of

these pilgrims. White men tell us they have moved in a body to the Rocky Mountain region, where they are as plenty as they were here, but when we ask red men, who are familiar with the mountain country, about them, they shake their heads in disbelief.

A pigeon nesting was always a great source of revenue to our people. Whole tribes would wigwam in the brooding places. They seldom killed the old birds, but made great preparation to secure their young, out of which the squaws made squab butter and smoked and dried them by thousands for future use. Yet, under our manner of securing them, they continued to increase.

White men commenced netting them for market about the year 1840. These men were known as professional pigeoners, from the fact that they banded themselves together, so as to keep in telegraphic communication with these great moving bodies. In this they became so expert as to be almost continually on the borders of their brooding places. As they were always prepared with trained stool-pigeons and flyers, which they carried with them, they were enabled to call down the passing flocks and secure as many by net as they were able to pack in ice and ship to market. In the year 1848 there were shipped from Catteraugus County, N. Y., eighty tons of these birds; and from that time to 1878 the wholesale slaughter continued to increase, and in that year there were shipped from

Michigan not less than three hundred tons of birds. During the thirty years of their greatest slaughter there must have been shipped to our great cities 5,700 tons of these birds; allowing each pigeon to weigh one-half pound would show twenty-three millions of birds. Think of it! And all these were caught during their brooding season, which must have decreased their numbers as many more. Nor is this all. During the same time hunters from all parts of the country gathered at these brooding places and slaughtered them without mercy.

In the above estimate are not reckoned the thousands of dozens that were shipped alive to sporting clubs for trap-shooting, as well as those consumed by the local trade throughout the pigeon districts of the United States.

These experts finally learned that the birds while nesting were frantic after salty mud and water, so they frequently made, near the nesting places, what were known by the craft as mud beds, which were salted, to which the birds would flock by the million. In April, 1876, I was invited to see a net over one of these death pits. It was near Petoskey, Mich. I think I am correct in saying the birds piled one upon another at least two feet deep when the net was sprung, and it seemed to me that most of them escaped the trap, but on killing and counting, there were found to be over one hundred dozen, all nesting birds.

When squabs of a nesting became fit for market, these experts, prepared with climbers, would get into some convenient place in a tree-top loaded with nests, and with a long pole punch out the young, which would fall with a thud like lead on the ground.

In May, 1880, I visited the last known nesting place east of the Great Lakes. It was on Platt River in Benzie County, Mich. There were on these grounds many large white birch trees filled with nests. These trees have manifold bark, which, when old, hangs in shreds like rags or flowing moss, along their trunks and limbs. This bark will burn like paper soaked in oil. Here, for the first time, I saw with shame and pity a new mode for robbing these birds' nests, which I look upon as being devilish. These outlaws to all moral sense would touch a lighted match to the bark of the trees at the base, when with a flash—more like an explosion—the blast would reach every limb of the tree, and while the affrighted young birds would leap simultaneously to the ground, the parent birds, with plumage scorched, would rise high in air amid flame and smoke. I noticed that many of these squabs were so fat and clumsy they would burst open on striking the ground. Several thousand were obtained during the day by this cruel process.

That night I stayed with an old man on the highlands just north of the nesting. In the course of the evening I explained to him the cruelty that was being shown to

the young birds in the nesting. He listened to me in utter astonishment, and said, "My God, is that possible!" Remaining silent a few moments with bowed head, he looked up and said, "See here, old Indian, you go out with me in the morning and I will show you a way to catch pigeons that will please any red man and the birds, too."

Early the next morning I followed him a few rods from his hut, where he showed me an open pole pen, about two feet high, which he called his bait bed. Into this he scattered a bucket of wheat. We then sat in ambush, so as to see through between the poles into the pen. Soon they began to pour into the pen and gorge themselves. While I was watching and admiring them, all at once to my surprise they began fluttering and falling on their sides and backs and kicking and quivering like a lot of cats with paper tied over their feet. He jumped into the pen, saying, "Come on, you red-skin."

I was right on hand by his side. A few birds flew out of the pen apparently crippled, but we caught and caged about one hundred fine birds. After my excitement was over I sat down on one of the cages, and thought in my heart, "Certainly Pokagon is dreaming, or this long-haired white man is a witch." I finally said, "Look here, old fellow, tell me how you did that." He gazed at me, holding his long white beard in one hand, and said with one eye half shut and a sly wink with the

other, "That wheat was soaked in whisky." His answer fell like lead upon my heart. We had talked temperance together the night before, and the old man wept when I told him how my people had fallen before the intoxicating cup of the white man like leaves before the blast of autumn. In silence I left the place, saying in my heart, "Surely the time is now fulfilled, when false prophets shall show signs and wonders to seduce, if it were possible, even the elect."

I have read recently in some of our game-sporting journals, "A warwhoop has been sounded against some of our western Indians for killing game in the mountain region." Now, if these red men are guilty of a moral wrong which subjects them to punishment, I would most prayerfully ask in the name of Him who suffers not a sparrow to fall unnoticed, what must be the nature of the crime and degree of punishment awaiting our white neighbors who have so wantonly butchered and driven from our forests these wild pigeons, the most beautiful flowers of the animal creation of North America.

In closing this article I wish to say a few words relative to the knowledge of things about them that these birds seem to possess.

In the spring of 1866 there were scattered throughout northern Indiana and southern Michigan vast numbers of these birds. On April 10, in the morning, they commenced moving in small flocks in diverging lines

toward the northwest part of Van Buren County, Mich. For two days they continued to pour into that vicinity from all directions, commencing at once to build their nests. I talked with an old trapper who lived on the brooding grounds, and he assured me that the first pigeons he had seen that season were on the day they commenced nesting and that he had lived there fifteen years and never known them to nest there before.

From the above instance and hundreds of others I might mention, it is well established in my mind beyond a reasonable doubt, that these birds, as well as many other animals, have communicated to them by some means unknown to us, a knowledge of distant places, and of one another when separated, and that they act on such knowledge with just as much certainty as if it were conveyed to them by ear or eye. Hence we conclude it is possible that the Great Spirit in His wisdom has provided them a means to receive electric communications from distant places and with one another.

CHAPTER VI

The Passenger Pigeon

From "Life Histories of North American Birds," *

by Charles Bendire

GEOGRAPHICAL Range: Deciduous forest regions of eastern North America; west, casually, to Washington and Nevada; Cuba.

The breeding range of the Passenger Pigeon to-day is to be looked for principally in the thinly settled and wooded region along our northern border, from northern Maine westward to northern Minnesota; in the Dakotas, as well as in similar localities in the eastern and middle portions of the Dominion of Canada, and north at least to Hudson's Bay. Isolated and scattering pairs probably still breed in the New England States, northern New York, Pennsylvania, Michigan, Wisconsin, Minnesota, and a few other localities further south, but the enormous breeding colonies, or pigeon roosts, as they were formerly called, frequently covering the forest for miles, and so often mentioned by natural-

*The first volume of Captain Bendire's monumental work was published in 1892, by which time the extinction of the Passenger Pigeon was foretold as a matter of a few more years. His contribution to the subject therefore deals with a much later period in the history of the bird and links the studies of Wilson and Audubon with the present day.

ists and hunters in former years, are, like the immense herds of the American bison which roamed over the great plains of the West in countless thousands but a couple of decades ago, things of the past, probably never to be seen again.

In fact, the extermination of the Passenger Pigeon has progressed so rapidly during the past twenty years that it looks now as if their total extermination might be accomplished within the present century. The only thing which retards their complete extinction is that it no longer pays to net these birds, they being too scarce for this now, at least in the more settled portions of the country, and also, perhaps, that from constant and unremitting persecution on their breeding grounds they have changed their habits somewhat, the majority no longer breeding in colonies, but scattering over the country and breeding in isolated pairs.

Mr. William Brewster, in his article "On the Present Status of the Wild Pigeon," etc., writes as follows: "In the spring of 1888 my friend, Captain Bendire, wrote me that he had received news from a correspondent in central Michigan to the effect that wild pigeons had arrived there in great numbers and were preparing to nest. Acting on this information, I started at once, in company with Mr. Jonathan Dwight, jr., to visit the expected 'nesting' and learn as much as possible about the habits of the breeding birds, as well as to secure specimens of their skins and eggs.

“On reaching Cadillac, Michigan, May 8, we found that large flocks of pigeons had passed there late in April, while there were reports of similar flights from almost every county in the southern part of the State. Although most of the birds had passed on before our arrival, the professional pigeon netters, confident that they would finally breed somewhere in the southern peninsula, were busily engaged getting their nets and other apparatus in order for an extensive campaign against the poor birds.

“We were assured that as soon as the breeding colony became established the fact would be known all over the State, and there would be no difficulty in ascertaining its precise location. Accordingly, we waited at Cadillac about two weeks, during which time we were in correspondence with netters in different parts of the region. No news came, however, and one by one the netters lost heart, until finally most of them agreed that the pigeons had gone to the far north, beyond the reach of mail and telegraphic communication. As a last hope, we went, on May 15, to Oden, in the northern part of the southern peninsula, about twenty miles south of the Straits of Mackinac. Here we found that there had been, as elsewhere in Michigan, a heavy flight of birds in the latter part of April, but that all had passed on. Thus our trip proved a failure as far as actually seeing a pigeon ‘nesting’ was concerned; but partly by observation, partly by talking with the netters, farmers, sports-

men, and lumbermen, we obtained much information regarding the flight of 1888, and the larger nestings that have occurred in Michigan within the past decade, as well as many interesting details, some of which appear to be new about the habits of the birds.

“Our principal informant was Mr. S. S. Stevens, of Cadillac, a veteran pigeon netter of large experience, and, as we were assured by everyone whom we asked concerning him, a man of high reputation for veracity and carefulness of statement. His testimony was as follows: ‘Pigeons appeared that year in numbers near Cadillac, about the 20th of April. He saw fully sixty in one day, scattered about in beech woods near the head of Clam Lake, and on another occasion about one hundred drinking at the mouth of the brook, while a flock that covered at least 8 acres was observed by a friend, a perfectly reliable man, flying in a north-easterly direction. Many other smaller flocks were reported.’”

“The last nesting of any importance in Michigan was in 1881, a few miles west of Grand Traverse. It was only of moderate size, perhaps 8 miles long. Subsequently, in 1886, Mr. Stevens found about fifty dozen pairs nesting in a swamp near Lake City. He does not doubt that similar small colonies occur every year, besides scattered pairs. In fact, he sees a few pigeons about Cadillac every summer, and in the early autumn young birds, barely able to fly, are often met with

singly or in small parties in the woods. Such stragglers attract little attention, and no one attempts to net them, although many are shot.

“The largest nesting he ever visited was in 1876 or 1877. It began near Petoskey, and extended northeast past Crooked Lake for 28 miles, averaging 3 or 4 miles wide. The birds arrived in two separate bodies, one directly from the south by land, the other following the east coast of Wisconsin, and crossing at Manitou Island. He saw the latter body come in from the lake at about 3 o'clock in the afternoon. It was a compact mass of pigeons, at least 5 miles long by 1 mile wide. The birds began building when the snow was 12 inches deep in the woods, although the fields were bare at the time. So rapidly did the colony extend its boundaries that it soon passed literally over and around the place where he was netting, although when he began, this point was several miles from the nearest nest. Nestings usually start in deciduous woods, but during their progress the pigeons do not skip any kind of trees they encounter. The Petoskey nesting extended 8 miles through hardwood timber, then crossed a river bottom wooded with arborvitæ, and thence stretched through white pine woods about 20 miles. For the entire distance of 28 miles every tree of any size had more or less nests, and many trees were filled with them. None were lower than about 15 feet above the ground.

“Pigeons are very noisy when building. They make

a sound resembling the croaking of wood frogs. Their combined clamor can be heard 4 or 5 miles away when the atmospheric conditions are favorable. Two eggs are usually laid, but many nests contain only one. Both birds incubate, the females between 2 o'clock P.M. and 9 o'clock or 10 o'clock the next morning; the males from 9 or 10 o'clock A.M. to 2 o'clock P.M. The males feed twice each day, namely, from daylight to about 8 o'clock A.M. and again late in the afternoon. The females feed only during the forenoon. The change is made with great regularity as to time, all the males being on the nest by 10 o'clock A.M.

“During the morning and evening no females are ever caught by the netters; during the forenoon no males. The sitting bird does not leave the nest until the bill of its incoming mate nearly touches its tail, the former slipping off as the latter takes it place.

“Thus the eggs are constantly covered, and but few are ever thrown out despite the fragile character of the nests and the swaying of the trees in the high winds. The old birds never feed in or near the nesting, leaving all the beech mast, etc., there for their young. Many of them go 100 miles each day for food. Mr. Stevens is satisfied that pigeons continue laying and hatching during the entire summer. They do not, however, use the same nesting place a second time in one season, the entire colony always moving from 20 to 100 miles after the appearance of each brood of young. Mr. Stevens,

as well as many of the other netters with whom we talked, believes that they breed during their absence in the South in the winter, asserting as proof of this that young birds in considerable numbers often accompany the earlier spring flights.

“Five weeks are consumed by a single nesting. Then the young are forced out of their nests by the old birds. Mr. Stevens has twice seen this done. One of the pigeons, usually the male, pushes the young off the nest by force. The latter struggles and squeals precisely like a tame squab, but is finally crowded out along the branch, and after further feeble resistance flutters down to the ground. Three or four days elapse before it is able to fly well. Upon leaving the nest it is often fatter and heavier than the old birds; but it quickly becomes much thinner and lighter, despite the enormous quantity of food it consumes.

“On one occasion an immense flock of young birds became bewildered in a fog while crossing Crooked Lake, and descending struck the water and perished by thousands. The shore for miles was covered a foot or more deep with them. The old birds rose above the fog, and none were killed.

“At least five hundred men were engaged in netting pigeons during the great Petoskey nesting of 1881. Mr. Stevens thought that they may have captured on the average 20,000 birds apiece during the season. Sometimes two carloads were shipped south on the railroad

each day. Nevertheless he believed that not one bird in a thousand was taken. Hawks and owls often abound near the nesting. Owls can be heard hooting there all night long. The cooper's hawk often catches the stool-pigeon. During the Petoskey season Mr. Stevens lost twelve stool birds in this way.

"There has been much dispute among writers and observers, beginning with Audubon and Wilson, and extending down to the present day, as to whether the wild pigeon has two eggs or one. I questioned Mr. Stevens closely on this point. He assured me that he had frequently found two eggs or two young in the same nest, but that fully half the nests which he had examined contained only one.

"Our personal experience with the pigeon in Michigan was as follows:

"During our stay at Cadillac we saw them daily, sometimes singly, usually in pairs, never more than two together. Nearly every large tract of old growth mixed woods seemed to contain at least one pair. They appeared to be settled for the season, and we were convinced that they were preparing to breed. In fact, the oviduct of a female, killed May 10, contained an egg nearly ready for the shell.

"At Oden we had a similar experience, although there were perhaps fewer pigeons there than about Cadillac.

"On May 24, Mr. Dwight settled any possible question as to their breeding in scattered pairs, by finding

a nest on which he distinctly saw a bird sitting. The following day I accompanied him to this nest, which was at least 50 feet above the ground, on the horizontal branch of a large hemlock, about 20 feet out from the trunk. As we approached the spot an adult male pigeon started from a tree near that on which the nest was placed, and a moment later a young bird, with stub tail and barely able to fly, fluttered feebly after it. This young pigeon was probably the bird seen the previous day on the nest, for on climbing to the latter, Mr. Dwight found it empty, but fouled with excrement, some of which was perfectly fresh. A thorough investigation of the surrounding woods, which were a hundred acres or more in extent, and composed chiefly of beeches, with a mixture of white pines and hemlocks of the largest size, convinced us that no other pigeons were nesting in them.

“All the netters with whom we talked believe firmly that there are just as many pigeons in the West as there ever were. They say the birds have been driven from Michigan and the adjoining States, partly by persecution, and partly by the destruction of the forests, and have retreated to uninhabited regions, perhaps north of the Great Lakes in British North America. Doubtless there is some truth in this theory; for, that the pigeon is not, as has been asserted so often recently, on the verge of extinction, is shown by the flight which passed through Michigan in the Spring of 1888. This

flight, according to the testimony of many reliable observers, was a large one, and the birds must have formed a nesting of considerable extent in some region so remote that no news of its presence reached the ears of the vigilant netters. Thus it is probable that enough Pigeons are left to restock the West, provided that laws sufficiently stringent to give them fair protection be at once enacted. The present laws of Michigan and Wisconsin are simply worse than useless, for, while they prohibit disturbing the birds *within* the nesting, they allow unlimited netting only a few miles beyond its outskirts *during the entire breeding season*. The theory is, that they are so infinitely numerous that their ranks are not seriously thinned by catching a few millions of breeding birds in a summer, and that the only danger to be guarded against is that of frightening them away by the use of guns or nets in the woods where their nests are placed. The absurdity of such reasoning is self-evident, but, singularly enough, the netters, many of whom struck me as intelligent and honest men, seem really to believe in it. As they have more or less local influence, and, in addition, the powerful backing of the large game dealers in the cities, it is not likely that any really effectual laws can be passed until the last of our Passenger Pigeons are preparing to follow the great auk and the American bison."

In order to show a little more clearly the immense destruction of the Passenger Pigeon *in a single year*

and at one roost only, I quote the following extract from an interesting article "On the Habits, Methods of Capture, and Nesting of the Wild Pigeon," with an account of the Michigan nesting of 1878, by Prof. H. B. Roney, in the *Chicago Field* (Vol. X, pp. 345-347):

"The nesting area, situated near Petoskey, covered something like 100,000 acres of land, and included not less than 150,000 acres within its limits, being in length about 40 miles by 3 to 10 in width. The number of dead birds sent by rail was estimated at 12,500 daily, or 1,500,000 for the summer, besides 80,352 live birds; an equal number was sent by water. We have," says the writer, "adding the thousands of dead and wounded ones not secured, and the myriads of squabs left dead in the nest, at the lowest possible estimate, a grand total of one billion pigeons sacrificed to Mammon during the nesting of 1878."

The last mentioned figure is undoubtedly far above the actual number killed during that or any other year, but even granting that but a million were killed at this roost, the slaughter is enormous enough, and it is not strange that the number of these pigeons are now few, compared with former years.

Capt. B. F. Goss, of Peewaukee, Wisconsin, writes me: "Ten years ago the wild pigeon bred in great roosts in the northern parts of Wisconsin, and it also bred singly in this vicinity; up to six or eight years ago they were plenty. The nest was a small, rough plat-

form of twigs, from 10 to 15 feet from the ground. I have often found two eggs in a nest, but one is by far the more common. These single nests have been thought by some accidental, but for years they bred in this manner all over the county, as plentifully as any of our birds. I also found them breeding singly in Iowa. These single nests have not attracted attention like the great roosts, but I think it is a common manner of building with this species."

Mr. Frank J. Thompson, in charge of the Zoölogical Gardens at Cincinnati, Ohio, gives the following account of the breeding of the wild pigeon in confinement: "During the spring of 1877, the society purchased three pairs of trapped birds, which were placed in one of the outer aviaries. Early in March, 1878, I noticed that they were mating, and procuring some twigs, I wove three rough platforms, and fastened them up in convenient places, at the same time throwing a further supply of building material on the floor. Within twenty-four hours two of the platforms were selected; the male carrying the material, whilst the female busied herself in placing it. A single egg was soon laid in each nest and incubation commenced. On March 16, there was quite a heavy fall of snow, and on the next morning I was unable to see the birds on their nests on account of the accumulation of the snow piled on the platforms around them. Within a couple of days it had all disappeared, and for the next four or

five nights a self-registering thermometer, hanging in the aviary, marked from 14° to 10° . In spite of these drawbacks both of the eggs were hatched and the young ones reared. They have since continued to breed regularly, and now I have twenty birds, having lost several eggs from falling through their illy-contrived nests and one old male."

The Passenger Pigeon has been found nesting in Wisconsin and Iowa during the first week in April, and as late as June 5 and 12 in Connecticut and Minnesota. Their food consists of beech nuts, acorns, wild cherries, and berries of various kinds, as well as different kinds of grain. They are said to be very fond of, and feed extensively on, angle worms, vast numbers of which frequently come to the surface after heavy rains, also on hairless caterpillars.

Their movements, at all seasons, seem to be very irregular, and are greatly affected by the food supply. They may be exceedingly common at one point one year, and almost entirely wanting the next. They generally winter south of latitude 36° .

Their notes during the mating season are said to be a short "coo-coo," and the ordinary call note is a "kee-kee-kee," the first syllable being louder and the last fainter than the middle one.

Opinions differ as to the number of broods in a season; while the majority of observers assert that but one, a few others say that two, are usually raised. The eggs

vary in number from one to two in a set, and incubation lasts from eighteen to twenty days, both sexes assisting. These eggs are pure white in color, slightly glossy, and usually elliptical oval in shape; some may be called broad elliptical oval.

The average measurements of twenty specimens in the U. S. National Museum collection is 37.5 by 26.5 millimetres. The largest egg measures 39.5 by 28.5, the smallest 33.5 by 26 millimetres.

CHAPTER VII

Netting the Pigeons

By William Brewster, from "The Auk," a Quarterly Journal of Ornithology, October, 1889.

IN the spring of 1888 my friend, Captain Bendire, wrote to me that he had received news from a correspondent in central Michigan to the effect that wild pigeons had arrived there in large numbers and were preparing to nest. Acting on this information I started at once, in company with Mr. Jonathan Dwight, Jr., to visit the expected "nesting" and learn as much as possible about the habits of the breeding birds, as well as to secure specimens of their skins and eggs.

. . . Pigeon netting in Michigan is conducted as follows: Each netter has three beds; at least two, and sometimes as many as ten "strikes" are made on a single bed in one day, but the bed is often allowed to "rest" for a day or two. Forty or fifty dozen birds are a good haul for one "strike." Often only ten or twelve dozen are taken. Mr. Stevens' highest "catch" is eighty-six dozen, but once he saw one hundred and six dozen captured at a single "strike." If too large a number are on the bed, they will sometimes raise the net bodily and

escape. Usually about one-third are too quick for the net and fly out before it falls. Two kinds of beds are used, the "mud" bed and the "dry" bed. The former is the most killing in Michigan, but, for unknown reason, it will not attract birds in Wisconsin.

It is made of mud, kept in a moist condition and saturated with a mixture of saltpeter and anise seed. Pigeons are very fond of salt and resort to salt springs wherever they occur. The dry bed is simply a level space of ground carefully cleared of grass, weeds, etc., and baited with corn or other grain. Pigeons are peculiar, and their habits must be studied by the netter if he would be successful. When they are feeding on beech mast, they often will not touch grain of any kind, and the mast must be used for bait.

A stool bird is an essential part of the netter's outfit. It is tied on a box, and by an ingenious arrangement of cords, by which it can be gently raised or lowered, is made to flap its wings at intervals. This attracts the attention of passing birds which alight on the nearest tree, or on a perch which is usually provided for that purpose. After a portion of the flock has descended to the bed, they are started up by "raising" the stool bird, and fly back to the perch. When they fly down a second time all or nearly all the others follow or accompany them and the net is "struck."

The usual method of killing pigeons is to break their necks with a small pair of pincers, the ends of

which are bent so that they do not quite meet. Great care must be taken not to shed blood on the bed, for the pigeons notice this at once and are much alarmed by it. Young birds can be netted in wheat stubble in the autumn, but this is seldom attempted. When just able to fly, however, they are caught in enormous numbers near the "nestings" in pens made of slats. A few dozen old pigeons are confined in the pens as decoys, and a net is thrown over the mouth of the pen when a sufficient number of young birds have entered it.

Mr. Stevens has known over four hundred dozen young pigeons to be taken at once by this method. The first birds sent to market yield the netter about one dollar a dozen. At the height of the season the price sometimes falls as low as twelve cents a dozen. It averages about twenty-five cents.

CHAPTER VIII

Efforts to Check the Slaughter

By Prof. H. B. Roney, East Saginaw, Mich.

The following article appeared in "American Field," of Chicago, Jan, 11, 1879. Parts omitted here referred to an ineffectual attempt on the part of the Saginaw and Bay City Game Protection Clubs to put a stop to the illegal netting and shooting of pigeons. The Michigan law was a bungling piece of business, working rather in the interest of the netters than of the birds. Prof. Roney and Mr. McLean accompanied the two representatives of the Game Protective Clubs sent North on this mission. I make this explanation as certain parts of the article I reproduce would otherwise not be as well understood.

FOR many years Passenger Pigeon nestings have been established in Michigan, and by a noticeable concurrence, only in even alternate years, as follows: 1868, 1870, 1872, 1874, 1876, 1878. In 1876 there were no less than three nestings in the State, one each in Newaygo, Oceana, and Grand Traverse counties.

Large numbers of professional "pigeoners," as they term themselves, devote their whole time to the business of following up and netting wild pigeons for gain and profit. These men carefully study the habits and direction of flight of the birds, and in the spring of the year can tell with considerable accuracy in about what

locality a nesting is to form. The indications are soon known throughout the fraternity and the gathering of the clans commences. The netters follow up the pigeons in their flight for hundreds of miles. The past year there have been nestings in Pennsylvania, Ohio and Michigan, though in the former two States they were of short duration, as they soon broke up and the birds turned their flight to the northwest. The flight of a pigeon is, under favorable conditions, sixty to ninety miles an hour, and these birds of passage leaving the Pennsylvania forests at daybreak can reach the Michigan nesting grounds by sunset.

Many of the little travellers came from the westward, crossing the stormy waters of the lake with the speed of a dart. From the four quarters of the globe, seemingly, they gather. Over the mountains, lakes, rivers, and prairies they speed their aërial flight, through storm, in sunshine and rain. Actuated as if by a common impulse toward the same object, their swift wings soon reach the summer nursery, to which they are drawn from points hundreds of miles distant by an instinct which surpasses human comprehension.

No less remarkable is the wisdom with which the nesting places are chosen, they being always in the densest woods, not in large and heavy timber, but generally in smaller trees with many branches, cedars, and saplings. The presence of large quantities of mast, which is the principal food of these birds, especially

beechnuts, is a prominent consideration in the selection of a nesting ground. As the feed in the vicinity of the nesting becomes exhausted, the birds are compelled to go daily farther and farther for food, even as high as seventy-five or one hundred miles, and these trips, which are taken twice a day, are known as the morning and evening flights.

The apparatus for the capture of wild pigeons consists of a net about six feet wide and twenty to thirty feet long. The operator first chooses the location for setting his net, which, it is needless to add, is in utter disregard of the State law, which prescribes certain limits within which nets must not be placed. A bed of a creek or low marshy spot is chosen, if possible at a natural salt lick, or a bed of muck, upon which the birds feed. The ground is cleared of grass and weeds, and to allure the birds the bed is "baited" with salt and sulphur several days before the net is to be placed. A bough house is made about twenty feet from the end of the bed, and all is ready for the net and its victims. A bird discovers the tempting spot, and with the instinct of the honey-bee, returns and brings several others, while these in turn bring a multitude, and in less than two days the bed is fairly blue with birds feeding on the seasoned muck.

The net is then set by an adjustment of ropes and a powerful spring pole, the net being laid along one side of the bed, and the operator retires to his bough house,

through which the ropes run, where he waits concealed for the flights.

Many trappers use two nets ranged along opposite sides of the bed, which are thrown toward each other and meet in the center. When enough birds are gathered upon the beds to make a profitable throw, the operator gives a quick jerk upon the rope, the net flies over in an instant, while in its meshes struggle hundreds of unwilling prisoners.

After pinching their necks the trapper removes the dead victims, resets the trap, and is ready for another haul. To lure down the birds from their flight overhead, most netters use "fliers" or "stool-pigeons." The former are birds held captive by a cord, tied to the leg, being thrown up into the air when a flight is observed approaching, and drawn fluttering down when the "flier" has reached its limit. The latter is a live pigeon tied to a small circular framework of wood or wire attached to the end of a slender and elastic pole, which is raised and lowered by the trapper from his place of concealment by a stout cord and which causes constant fluttering. A good stool-pigeon (one which will stay upon the stool) is rather difficult to obtain, and is worth from \$5 to \$25. Many trappers use the same birds for several years in succession.

The number of pigeons caught in a day by an expert trapper will seem incredible to one who has not witnessed the operation. A fair average is sixty to ninety

✓ dozen birds per day per net and some trappers will not spring a net upon less than ten dozen birds. Higher figures than these are often reached, as in the case of one trapper who caught and delivered 2,000 dozen pigeons in ten days, being 200 dozen, or about 2,500 birds per day. A double net has been known to catch as high as 1,332 birds at a single throw, while at natural salt licks, their favorite resort, 300 and 400 dozen, or about 5,000 birds have been caught in a single day by one net.

The prices of dead birds range from thirty-five cents to forty cents per dozen at the nesting. In Chicago markets fifty to sixty cents. Squabs twelve cents per dozen in the woods, in metropolitan markets sixty cents to seventy cents. In fashionable restaurants they are served as a delicious tid-bit at fancy prices. Live birds are worth at the trapper's net forty cents to sixty cents per dozen; in cities \$1 to \$2. It can thus be easily seen that the business, when at all successful, is a very profitable one, for from the above quotations a pencil will quickly figure out an income of \$10 to \$40 per day for the "poor and hard-working pigeon trapper." One "pigeoner" at the Petoskey nesting was reported to be worth \$60,000, all made in that business. He must have slain at least three million pigeons to gain this amount of money.

For several years violations of the laws protecting pigeons in brooding time have been notorious in the

Michigan nestings. Professional "pigeoners" did not for an instant pretend to observe the law, and a lax and indifferent public opinion permitted the illegal slaughter to go on without let or hindrance, while itinerant pigeon trappers from all parts of the United States, grew rich at the expense of the commonwealth, and in intentional violation of its laws. Each succeeding year the news has been spread far and wide until it became useless to conceal the fact that pigeon trapping was a profitable business, the year of 1876 witnessing a magnitude in the traffic which exceeded anything heretofore known in the country.

In the early part of March last, a pigeon nesting formed just north of Petoskey, Michigan. Not many days had passed before information was conveyed to the game protection clubs of East Saginaw and Bay City, that enormous quantities of pigeons were being killed in open and defiant violation of the law. On reaching Petoskey we found the condition of affairs had not been magnified; indeed, it exceeded our gravest fears. Here, a few miles north, was a pigeon nesting of irregular dimensions, estimated by those best qualified to judge, to be forty (40) miles in length, by three to ten in width, probably the largest nesting that has ever existed in the United States, covering something like 100,000 acres of land, and including not less than 150,000 acres within its limits.

At the hotel we met one we were glad to see, in the

person of "Uncle Len" Jewell, of Bay City, an old woodsman and "land-looker." Len had for several weeks been looking land in the upper peninsula, and was on his return home. At our solicitation he agreed to remain for two or three days, and co-operate with us. In the village nothing else seemed to be thought of but pigeons. It was the one absorbing topic everywhere. The "pigeoners" hurried hither and thither, comparing market reports, and soliciting the latest quotations on "squabs." A score of hands in the packing-houses were kept busy from daylight until dark. Wagon load after wagon load of dead and live birds hauled up to the station, discharged their freight, and returned to the nesting for more. The freight house was filled with the paraphernalia of the pigeon hunter's vocation, while every train brought acquisitions to their numbers, and scores of nets, stool-pigeons, etc.

The pigeoners were everywhere. They swarmed in the hotels, postoffice, and about the streets. They were there, as careful inquiry and the hotel registers showed, from New York, Wisconsin, Pennsylvania, Michigan, Maryland, Iowa, Virginia, Ohio, Texas, Illinois, Maine, Minnesota, and Missouri.

Hiring a team, we started on a tour of investigation through the nesting. Long before reaching it our course was directed by the birds over our heads, flying back and forth to their feeding grounds. After riding about fifteen miles, we discovered a wagon-track leading into

the woods, in the direction of the bird sounds which came to our ears. Three of the party left the wagon and followed it; the twittering grew louder and louder, the birds more numerous, and in a few minutes we were in the midst of that marvel of the forest and Nature's wonderland—the pigeon nesting.

We stood and gazed in bewilderment upon the scene around and above us. Was it indeed a fairyland we stood upon, or did our eyes deceive us. On every hand, the eye would meet these graceful creatures of the forest, which, in their delicate robes of blue, purple and brown, darted hither and thither with the quickness of thought. Every bough was bending under their weight, so tame one could almost touch them, while in every direction, crossing and recrossing, the flying birds drew a network before the dizzy eyes of the beholder, until he fain would close his eyes to shut out the bewildering scene.

This portion of the nesting was the first formed, and the young birds were just ready to leave the nests. Scarcely a tree could be seen but contained from five to fifty nests, according to its size and branches. Directed by the noise of chopping and falling trees, we followed on, and soon came upon the scene of action.

Here was a large force of Indians and boys at work, slashing down the timber and seizing the young birds as they fluttered from the nest. As soon as caught, the

heads were jerked off from the tender bodies with the hand, and the dead birds tossed into heaps. Others knocked the young fledglings out of the nests with long poles, their weak and untried wings failing to carry them beyond the clutches of the assistant, who, with hands reeking with blood and feathers, tears the head off the living bird, and throws its quivering body upon the heap.

Thousands of young birds lay among the ferns and leaves dead, having been knocked out of the nests by the promiscuous tree-slashing, and dying for want of nourishment and care, which the parent birds, trapped off by the netter, could not give. The squab-killers stated that "about one-half of the young birds in the nests they found dead," owing to the latter reason. Every available Indian, man and boy, in the neighborhood was in the employ of buyers and speculators, killing squabs, for which they received a cent apiece.

Early in the morning, Len, with his land-looker's pack and half-ax, and the writer, started out to "look land." Taking the course indicated by the obliging small boy, we soon struck into an old Indian trail which led us through another portion of the nesting, where the birds for countless numbers surpassed all calculation. The chirping and noise of wings were deafening and conversation, to be audible, had to be carried on at the top of our voices. On the shores of the lake where the birds go to drink, when flushed by an intruder, the

rush of wings of the gathered millions was like the roar of thunder and perfectly indescribable. An hour's walk brought us to a ravine which we cautiously approached.

Directed by the commotion in the air, we soon discovered the bough house and net of the trapper. Evidence being what we sought, we stood concealed behind some bushes to await the spring of the trap. The black muck bed soon became blue and purple with pigeons lured by the salt and sulphur, when suddenly the net was sprung over with a "whiz," retaining hundreds of birds beneath it, while those outside its limits flew to adjacent trees. We now descended from the brink of the hill to the net, and there beheld a sickening sight not soon forgotten.

On one side of the bed of a little creek was spread the net, a double one, covering an area when thrown, of about ten by twenty feet. Through its meshes were stretched the heads of the fluttering captives vainly struggling to escape. In the midst of them stood a stalwart pigeonier up to his knees in the mire and bespattered with mud and blood from head to foot. Passing from bird to bird, with a pair of blacksmith's pincers, he gave the neck of each a cruel grip with his remorseless weapon, causing the blood to burst from the eyes and trickle down the beak of the helpless captive, which slowly fluttered its life away, its beautiful plumage besmeared with filth and its bed dyed with its

crimson blood. When all were dead, the net was raised, many still clinging to its meshes with beak and claws in their death grip and were shaken off. They were then gathered, counted, deposited behind a log with many others and covered with bushes, and the death trap set for another harvest.

Scarcely able to conceal our indignation, we sat upon the bank and questioned this hero, learning that he had pursued the business for years, and had caught as high as 87 dozen in one day, learning later that he caught and killed upon that day, 82 dozen, or 984 birds. This outrage was perpetrated within 100 rods of the nests and in plain hearing of the nesting sounds, instead of two miles away, as the law prescribes. After gaining some further information, the old gray-headed land-looker and his companion withdrew, bidding the pigeon pirate good-day, and leaving him none the wiser for the visit. Out of sight we worked our way back to the road, overtook the stage and returned to Petoskey. The next day the writer swore out a warrant and caused the arrest of the offender, who could not do otherwise than plead guilty, and had the satisfaction of seeing him pay over his fine of \$50 for his poor knowledge of distances.

The shooting done at the nesting was in the most flagrant violation of the protective laws. The five-mile limit was a dead letter. The shotgun brigade went where they listed, and shot the birds in the nesting as

they sat in rows on the trees or passed in clouds overhead. Before we arrived, a party of four men shot 826 birds in one day and then only stopping from sheer fatigue. Other parties continued the fusillade until the guns became so foul they could not be used, and would return to the village with a wagon-box full of birds. Scores of dead pigeons were left on the grounds to decay, and the woods were full of wounded ones. H. Frayer, a justice of the peace, informed us that a few days previously he had picked up fifteen maimed birds, his neighbor, a Mr. Green, twenty, and a Mr. Crossman, thirty-six, all in one day, after a shooting party had passed through.

The news of the formation of the nesting was not long in reaching the various Indian settlements near Petoskey, and the aborigines came in tens and fifties and in hordes. Some were armed with guns, but the majority were provided with powerful bows, and arrows with round, flat heads two or three inches in diameter. With these they shot under or into the nests, knocked out the squabs to the ground, and raked the old birds which loaded the branches. For miles the roads leading to the nesting were swarming with Indians, big and little, old and young, squaws, pappooses, bucks and young braves, on ponies, in carts and on foot. Each family brought its kit of cooking utensils, axes, a stock of provisions, tubs, barrels and firkins to pack the birds in, and came intending to carry on the business until the nesting



UPPER SPECIMEN, PASSENGER PIGEON (*Ectopistes Migratoria*)

LOWER SPECIMEN, MOURNING DOVE (*Zenaidura Macroura*)

Frequently mistaken for Passenger Pigeon

broke up. In some sections the woods were literally full of them.

With the aid of Sheriff Ingalls, who spoke their language like a native, we one day drove over 400 Indians out of the nesting, and their retreat back to their farms would have rivaled Bull Run. Five hundred more were met on the road to the nesting and turned back. The number of pigeons these two hordes would have destroyed would have been incalculable. Noticing a handsome bow in the hands of a young Indian, who proved to a son of the old chief, Petoskey, a piece of silver caused its transfer to us, with the remark, "Keene, kensau, mene sic" (now you can go and shoot pigeons), which dusky joke seemed to be appreciated by the rest of the young chief's companions.

There are in the United States about 5,000 men who pursue pigeons year after year as a business. Pigeon hunters with whom we conversed incognito stated that of this number there were between 400 and 500 at the Petoskey nesting plying their vocation with as many nests, and more arriving upon every train from all parts of the United States. When it is remembered that the village was alive with pigeoners, that nearly every house in the vast area of territory covered by the nesting sheltered one to six pigeon men, and that many camped out in the woods, the figures will not seem improbable. Every homesteader in the country who owned or could hire an ox team or pair of horses, was

engaged in hauling birds to Petoskey for shipment, for which they received \$4 per wagon load. To "keep peace in the family" and avoid complaint, the pigeon men fitted up many of the settlers with nets, and instructed them in the art of trapping.

Added to these were the buyers, shippers, packers, Indians and boys, making not less than 2,000 persons (some placed it at 2,500) engaged in the traffic at this one nesting. Fully fifty teams were engaged in hauling birds to the railroad station. The road was carpeted with feathers, and the wings and feathers from the packing-houses were used by the wagon load to fill up the mud holes in the road for miles out of town. For four men to attempt to effect a work, having for opponents the entire country, residents and non-residents included, was no slight task.

The majority of the pigeoners were a reckless, hard set of men, but their repeated threats that they would "buckshot us" if we interfered with them in the woods failed to inspire the awe that was intended. It was four against 2,000. What was accomplished against such fearful odds may be seen by the following:

The regular shipments by rail before the party commenced operations were sixty barrels per day. On the 16th of April, just after our arrival, they fell to thirty-five barrels, and on the 17th down to twenty barrels per day, while on the 22d the shipments were only eight barrels of pigeons. On the Sunday previous there were

shipped by steamer to Chicago 128 barrels of dead birds and 108 crates of live birds. On the next Sabbath following our arrival the shipments were only forty-three barrels and fifty-two crates. Thus it will be seen that some little good was accomplished, but that little was included in a very few days of the season, for the treasury of the home clubs would not admit of keeping their representatives longer at the nesting, the State clubs, save one, did not respond to the call for assistance, and the men were recalled, after which the Indians went back into the nesting, and the wanton crusade was renewed by pigeoners and all hands with an energy which indicated a determination to make up for lost time.

[The first shipment of birds from Petoskey was upon March 22, and the last upon August 12, making over twenty weeks, or five months, that the bird war was carried on. For many weeks the railroad shipments averaged fifty barrels of dead birds per day—thirty to forty dozen old birds and about fifty dozen squabs being packed in a barrel. Allowing 500 birds to a barrel, and averaging the entire shipments for the season at twenty-five barrels per day, we find the rail shipments to have been 12,500 dead birds daily, or 1,500,000 for the summer. Of live birds there were shipped 1,116 crates, six dozen per crate, or 80,352 birds.]

These were the rail shipments only, and not including the cargoes by steamers from Petoskey, Cheboygan,

Cross Village and other lake ports, which were as many more. Added to this were the daily express shipments in bags and boxes, the wagon loads hauled away by the shotgun brigade, the thousands of dead and wounded ones not secured, and the myriads of squabs dead in the nest by trapping off of the parent birds soon after hatching (for a young pigeon will surely die if deprived of its parents during the first week of its life), and we have at the lowest possible estimate a grand total of 1,000,000,000 pigeons sacrificed to Mammon during the nesting of 1878.

The task undertaken in behalf of justice and humanity was a Herculean one, but backed up by such true sportsmen as A. H. Mershon and Wm. J. Loveland, of East Saginaw, and Judge Holmes, S. A. Van Dusen, D. H. Fitzhugh, Jr., and others of Bay City, as well as by the sentiment of every humane citizen of the State, we could not do other than follow the advice of Davy Crockett, and being sure we were right, we decided to "go ahead." The question of a wise protection to the game and fish of our State is one in which the writer holds a deep and fervent interest, and in serving this cause, he will swerve from no duty, nor shrink from consequences in the discharge of that duty.

The foregoing article is the result of an honest conviction that the best interests of the State demanded a full exposure of the methods by which the pigeon is threatened with extinction.

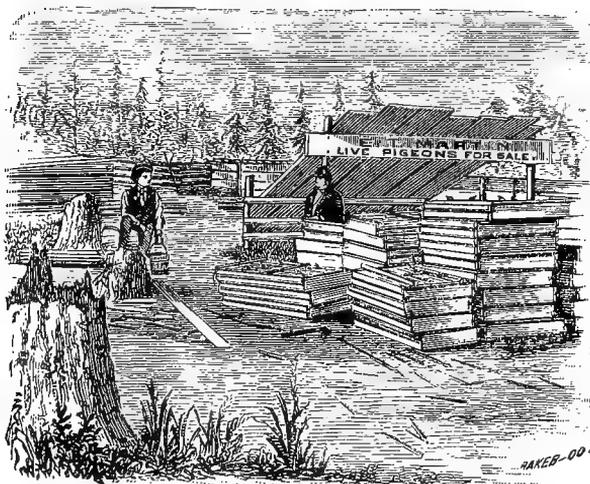
AMONG THE PIGEONS.

**A Reply to Professor Roney's Account of
the Michigan Nestings of 1878.**

—BY—

E. T. MARTIN,

In the CHICAGO FIELD, Jan. 25, 1879.



**E. T. Martin's Headquarters at Boyne Falls, Michigan, during the
Nesting of 1878.**

Fac-simile reproduction of circular, issued 1879, showing E. T. Martin's pigeon headquarters at Boyne Falls, Mich.

CHAPTER IX

The Pigeon Butcher's Defense

By E. T. Martin, from the "American Field," Chicago,
January 25, 1879.

The preceding chapter by Prof. H. B. Roney in *American Field*, was answered by E. T. Martin, a game dealer of Chicago, who afterwards issued a pamphlet, the first page of which is herewith reproduced, and I make quite extensive extracts from the body of the circular, which incidentally advertises Martin as "the largest dealer in live pigeons for trap shooting in the world, also a dealer in guns, glass balls, traps, nets, etc."

I call the reader's attention to the following:

In the table given of the shipments from Petoskey and Boyne Falls, etc., during 1878, Martin estimates the number shipped alive from Cheboygan as 89,730, yet H. T. Phillips of Detroit, shows from his records that he alone shipped from that point 175,000 that year. So if Martin's estimates are all as far wrong as this one, he should account for a total shipment of over 2,000,000 pigeons.

In Martin's circular, he seems to take offense at some remarks Prof. Roney has made in this article that reflect upon the character of these netters, for Martin uses in quotation marks the following: "A reckless, hard set of men, pirates, etc.," which seems to have some foundation in fact, as Martin says: "In proof of the pigeons feeding squab indiscriminately, I may mention the fact that one of the men in my employ this year, while at the Shelby nesting in 1876 in one afternoon shot and killed six hen pigeons that came to feed the one squab in the same nest." Further comment is unnecessary.—W. B. M.

ALITTLE after the middle of March a body of birds began nesting some twelve miles north of Petoskey, near Pickerel Lake. About April 8 another and larger body "set in" along Maple and Indian Rivers, and Burt Lake, and near Cross Village, there being in all some seven or eight distinct nestings,

covering perhaps, of territory actually occupied by the nesting, a tract some fifteen miles long and three of average width, or forty-five square miles.

The principal catch was made from the Crooked and Maple rivers nestings, and when the former "broke," which was about May 25, the pigeoners pulled up and left, many going home, and others to the Boyne Falls nesting, some thirty miles south, which "set in" at about the same time. This gave a duration of two and one-third months to the Petoskey nesting proper, though it is true that, feed being abundant, some very few birds remained around, roosting for a little longer.

The Boyne Falls nesting lasted something over a month and broke early in July; from this the catch was very light. After that, the only catch was a few young birds taken "on bait."

Besides these nestings, there was one further south on the Manistee River, some twenty-six miles long by five average width, or 130 square miles, in which the birds hatched three times, and from which not a bird was caught, as it was an impenetrable swamp, and the putting of birds on the market would be attended with such expense as to destroy the profit. There were also one or two smaller ones, east of this one. These comprised the Michigan nestings, in addition to which, at Sheffield, Pa., there was fully as large a body, and fully as large a catch as at the Crooked and Maple nestings, the birds hatching there, I think, three times,

each hatching taking four weeks, from the beginning of nest building to the time the old birds leave the young.

It is true, however, that birds were shipped from Petoskey the middle of August, but they were birds belonging to me that I was holding there for a market, my Chicago pens being full. Every bird of them had been in my possession for a month previous, and many for six weeks. So the actual pigeon business lasted not five months, as Prof. Roney says, but about three; part of which time the total catch was not fifty dozen per day.

* * * * *

They (Prof. Roney et al.) came to Petoskey with a great flourish of trumpets, hired expensive livery rigs to ride around the country in, made one or two arrests, secured one conviction by default, were defeated in every case that came to trial, had one of the party play the rôle of "terrible example" in the trout case, and then went home, and in the face of the fact that they had eaten, or known of having been eaten, hundreds of pigeons, and of the certainty that the report was false, had published in the Saginaw paper a report that the pigeons then being caught in Michigan were feeding on poisoned berries, and the using them for food had caused much sickness, and in one or two instances loss of life.

This was not only published in the home papers, but was telegraphed to New York, Boston, Chicago, St.

Louis and Cincinnati, and marked copies of the notice sent to the press of neighboring cities, the avowed object being to cause such a decline in price as to force the netters to quit. It was based on the idea that most of them were men of small means, and that unless ready market offered for their birds, they must give out. The effect was to cause a drop in price of fifty cents a dozen in New York and Boston in a single day, to cause the price in Chicago to decline to twenty cents per dozen, and to take the last cent out of the pockets of a hundred netters, leaving many who became discouraged and had to walk long distances to their homes, dependent on chance for even a mouthful to eat. Many, though, held out. Telegrams of denial were sent, and the market in a week or two rallied somewhat, though it was a month before prices in the East touched the same figure as when the "poison-berry" telegrams were received. During the week when prices were lowest I refused to buy many dead birds offered me at five cents per dozen, preferring to lend the netter money, or to advance it on his next catch to be saved alive.

And, by the way, let me say that killing the pigeons by pincers is an instantaneous and painless death, the neck being broken by a single movement, and the fluttering spoken of being the same seen in any bird shot through the head, or with the head cut off. But had the market remained unbroken, had this infamous poisoned berry story never been started, no such net results

in way of profit would have been reached as Prof. Roney says. Under very favorable circumstances, a good netter in such a season as we had in 1878, would make from \$100 to \$200, but by far the larger portion would not reach \$100 over expenses.

At the Crooked and Maple nestings day in and day out the average catch was about twenty dozen per day to each net and two men. These sold, except immediately after the "poisoned berry story," at from twenty to thirty cents per dozen head, at the net, or if the catcher was saving alive, in which case his catch would be one-third smaller, owing to the trouble of handling the live birds, he would get from thirty-five to forty-five cents.

The principal object in saving them alive was that no birds spoiled from warm weather, and at my pens close by the nesting they would be received at any hour, while to sell dead birds it was necessary to depend on some chance buyer or to haul to Petoskey, fourteen miles distant. At Boyne Falls prices were a little higher, say twenty-five for dead and fifty cents for live, but the average catch was not five dozen per day to each net. There were exceptions both ways, which went of course to make up the average, the most notable being that of the 2,000 dozen caught by one party, not in ten days, but in twenty, employing two nets and six men. This I know, for I was at the net and saw part of the catching, while Prof. Roney never got that far. This 2,000 dozen was shipped East and netted the catchers just

fifteen cents a dozen at the net, or \$300 for twenty days' work for six men and two nets, while on the other hand, during the same time, many better catchers who had not been lucky in location hadn't made enough to pay for board. Names, locations, etc., can be furnished if Prof. Roney desires.

✓ The Professor then goes on to lament his failure before our Emmett County jury. The reason why is very simple, *he never proved his case*. This whole pigeon trade was a perfect Godsend to a large portion of Emmett County. The land outside of Petoskey is taken up by homesteaders, who, between clearing their land, scanty crops, poor soil, large families, and small capital, are poorer than Job's turkey's prodigal son, and in years past have had all they could do fighting famine and cold, and but a year or so since all Michigan was sending relief to keep them from starving, thousands of dollars being contributed, and then most harrowing tales being told of need and destitution.

✓ The "pirates and bummers" left some \$35,000 in good greenbacks right among the most needy of these people. Many were enabled to buy a team, others to clear more land, more to increase their crops, and all to lay in provisions and clothing to meet the bitter winter we are now passing through, and this money did more to open up Emmett County than years of ordinary work. It put scores of honest, hard-working homesteaders on their feet; it increased trade, and, if sent

by a special act of Providence, could not have done more good. Such being the case, can any blame be given an Emmett County jury if they required evidence direct and to the point before convicting? And in no case that came to trial was direct evidence given. So the four true "sportsmen" there in behalf of justice and humanity, had such a cold reception from all, that they concluded strategy beat that kind of work all to death, pulled up stakes and hurried home, and worked up the poisoned berry business.

* * * * *

Now, about the merciless slaughter. Prof. Roney estimates 1,500,000 dead and 80,000 live birds as the shipments, and then goes on to say that *one billion* birds have been destroyed! What logic.

I have official figures before me, and they show that the shipments from Petoskey and Boyne Falls were:

Petoskey, dead, by express	490,000
Petoskey, alive, by express	86,400
Boyne Falls, dead	47,100
Boyne Falls, alive	42,696
Petoskey, dead, by boat, estimated	110,000
Petoskey, alive, by boat, estimated	33,640
Cheboygan, dead, by boat, estimated	108,300
Cheboygan, alive, by boat, estimated	89,730
Other points, dead and alive, estimated	100,000
Total	1,107,866

This may be set down as accurate or nearly so, and 1,500,000 will cover the total destruction of birds by net, gun and Indians. The total number of nesting squabs taken by the Indians would not reach 100,000 and not over fifty barrels of these ever reached a market, the Indians smoking the remainder for winter use. No one knows how many birds 1,500,000 are until they see them, and handle a few. As an illustration: To buy and sell 125,000 birds in four months, it took myself, two men and a boy all our time, working from daylight until after dark every day.

I doubt if there were a billion birds in all the Crooked and Maple nestings. I am certain that there were not at any one time. I am also certain that more than double as many young birds left those nestings than all the birds caught, killed or destroyed. The morning that the Crooked nesting broke, I was out at daylight, and at the net to see and help one of my men make a strike; for an hour and a half a continuous body of birds half a mile wide and very thick was going out; our strike was twenty-nine dozen, twenty-five dozen young and four dozen old, about the same proportion as the other catchers. This showed that of the immense body over five-sixths were young birds, barely old enough ones remaining to guide the body of young, and this was out of the nesting from which the bulk of the birds had been caught, where the destruction had been the greatest. When it is considered that the

Manistee birds hatched three times unmolested, that there was a body several times larger there, than at the Crooked and Maple, and that many from each body went further north entirely out of reach and nested at least once, possibly twice again, some idea may be formed of the immense addition to the army of pigeons from the Michigan nestings of 1878. Many more young birds left the Crooked River nesting alone, than all, old or young, destroyed during the entire season's pigeoning.

Prof. Roney's lament about the young dying when deprived of the parent bird, and his addition to the number "sacrificed to Mammon" from that source, compares favorably with the poisoned berry story, or the attack on Turner. Admitting that 1,500,000 birds were caught and killed, not more than half of these would be old birds, some of which would not be nesting, and from some of which the young had left the nest. If for every one of the 750,000 old birds caught and killed, the squab had died, this would make a total slaughter of 2,250,000, or about one four hundred and fiftieth of the number he says.

I don't believe Prof. Roney knows what a billion is. However, there were not 750,000, no, nor 100,000 squabs killed by losing their parents. It is a well-proved fact that the old bird coming in will stop and feed any squab heard crying for food, that in this way they look out for one another's young, and the orphans

or half-orphans are cared for. It is rare, however, for both old birds to be caught or killed, since the toms and hens when nesting always fly separately, and the chance of both the parents of the squab falling a "victim to Mammon," particularly in a large nesting, is small. As proof of the pigeons feeding squabs indiscriminately, I may mention that one of the men in my employ this year, at the Shelby nesting in 1876, in one afternoon shot and killed six hen pigeons that came to *feed* the *one squab* in the *same nest*.

* * * * *

Why, Prof. Roney, the catch went on all the same, your party made no difference of note, but the weather was rough and somewhat stormy; the birds didn't "stool" well, and during the days mentioned the catch was very small, hence the decrease in shipments. Now, regarding the law, it is well enough as it is; one shot-gun near a nesting is more destructive than a dozen nets; the report of the gun causes the birds to rise in thousands, and, when repeated, to leave in a body, regardless of nest or squab, and never to return; as an example, may be mentioned, the Minnesota nesting of 1877, when the birds were driven entirely away.

The net is silent; its work occasions no alarm; it makes no cripples, consequently it can be admitted nearer to the nests than its more noisy partner. Protect the pigeons entirely, and a law forbidding catching dur-

ing nesting time is equivalent to entire protection, and you have northern Michigan overrun with a pest that will destroy the farmer's seed as fast as sown, and when harvest time approaches, pounce upon a wheat field ready for the reaper and in an hour not leave even enough for the gleaner. Their increase would be more rapid, their stay longer, and in four years not only would the law be repealed, but inducements to slaughter would be held out to rid the State of the rapidly increasing and destructive pests.

✓ The pigeon never will be exterminated so long as forests large enough for their nestings and mast enough for their food remain.

✓ In conclusion, the pigeons are as much an article of commerce as wheat, corn, hogs, beeves, or sheep. It is no more cruel to kill them for market by the thousand, than it is to countenance the killing at the stock yards in this or any other large commercial center. The paper to-night shows that in six cities over four million hogs have been killed since Nov. 1, 1878, or two and a half months, a larger slaughter than, during the same time, of pigeons at the nestings by nearly threefold. Yet this is not "sacrificing to Mammon." A farmer can market his poultry dead or alive at any time of the year, and the slaughter, the country over, is larger than that of pigeons, yet no one in the interest of "justice and humanity" interferes.

The pigeon is migratory, it can care for itself. It

nests in the impenetrable wilds of Arkansas, the Indian Territory, Canada and British America, as often as in the land of civilization where it can be reached for market. It is a source of profit to the poor, or pleasure to the rich. Its benefits to the Emmett County homesteaders, as felt through the cold of this winter alone, are enough to compensate for evils even as black as our Prof. Roney paints, and Emmett County is but a sample of whatever location the birds may settle in.

✓ Let the law, in regard to distance, stand as it is. Enforce it against all alike; make no exceptions; let the rule of supply and demand govern the catchings, and you will have something better than all the professors in Michigan suggest. Let the supply be so large that prices are low and wages can't be made, and law or no law, the catching will stop. But don't make a law that will take bread out of the homesteader's mouth, and work from hundreds of poor and honest men; no, not even if the birds should be sacrificed, to a certain extent, for man is above the beasts, and the "beasts of the field and the birds of the air" are given unto him for his benefit and his profit.



H. T. PHILLIPS' STORE

A typical game store of the early 70's



CHAPTER X

Notes of a Vanished Industry

I have corresponded with many men who were actively interested in hunting and observing the Passenger Pigeon when its flocks still numbered uncounted millions of birds. Some of the data supplied in kind response to my queries is in the form of hastily jotted notes, which, when they are brought together, include more or less repetition of personal experiences. They have a certain value, however, when taken *en masse*, for they are the testimony of eye-witnesses who will soon be gone, after which the Passenger Pigeon will become as much a matter of written history and tradition as the auk or the buffalo.

I am under obligation to Mr. Henry T. Phillips, of Detroit, for much practical information regarding the capture of pigeons, and the business of marketing them as he knew it in those earlier days. There follows a portion of a letter written me by Mr. Phillips in October, 1904.—W. B. M.

I AM in receipt of your letter asking for information about the wild pigeon, but I do not know that I can be of much benefit to you, though I will give you what information I can.

I began business in Cheboygan, Mich., in May, 1862, as a dealer in groceries and produce and added the commission business a little later, as I was fond of shooting, and I began advertising the sale of game. I have been credited by dealers in New York with being the largest shipper of venison in the United States. In 1864 (I think it was) I had a shipment of live wild pigeons which we brought down the Cheboygan River

from Black Lake in crates holding six dozen each. All of these crates were made by hand by one E. Osborn, who was then one of the traveling pigeon catchers, the firm being Osborn & Thompson, well known by all men who traveled then. From that time I have handled live pigeons in quantities up to 175,000 per year until they left the country. The last nesting in Michigan was up on Crooked Lake near Petoskey in 1878, I believe, from which I shipped 150,000.

In 1866, they nested in the town of Vassar, Tiscola County, Mich., and usually each alternate year, as the mast crop was every second season, beech nuts being their choice food. The other years they nested in Wisconsin on acorns, or in Minnesota, feeding on spring wheat. New York sometimes held them, and Pennsylvania often, for a nesting; but being a hard place they never caught many there, Michigan being the favorite trapping ground. 1874 there was a nesting at Shelby, Oceana County, Mich., on which it was estimated they made the heaviest catches I have ever known of: 100 barrels daily on an average of thirty days of dead birds, besides the live ones, of which I shipped 175,000.

There were five nestings that year in the State, three going on at the same time, but all not heavily worked. That year I shipped by the steamer *Fountain City*, from Frankfort, 478 coops, six dozen each, one shipment going to Oswego, N. Y., for the Leather Stocking Club Tournament.

I bought from Dr. Slyfield 600 dozen at \$1 per dozen, agreeing to pay only in one-hundred-dollar bills. He traveled two days to get twelve dozen to make up the shortage. The pigeons at that time wintered in southern Missouri and the Indian Nation, and were shot at night by natives and marketed in St. Louis. As they fed on pine-oak acorns, which tainted the meat, the market was poor and prices low. The traveling netters usually worked at something else while South.

The pigeons started north about the last of March, and usually located the last of May, according to weather. If food was plentiful they nested in large bodies; if not, they divided and nested in fewer numbers. In Wisconsin I have seen a continual nesting for 100 miles, with from one to possibly fifty nests on every oak scrub.

In Michigan usually the feeding grounds were across the straits, where blueberries were abundant, until fall, when the birds scattered back in small bodies, feeding on stubble and elm seed. Frequently they would go into a roosting place, and make it a home for weeks before leaving for the South. Traveling north, they usually flew until about ten or eleven in the morning and again in the evening. I have known of large quantities being drowned in Lake Huron, crossing from Canada on the way north, and have had lake captains tell me of passing for three hours through dead birds, which had been caught in a fog.

In 1874 there were over six hundred professional netters, and when the pigeons nested north, every man and woman was either a catcher or a picker. They used to catch them in different ways. What was known as flight-catching was in the early morning and evening, a spot being cleared of usually twelve to sixteen feet wide and twenty to twenty-four feet long, large enough for a net. This was known as the bed. About fifty feet from the bed a brush house was built and the net was staked down, two spring poles were set to spring the net out straight, but loose enough to fall easy and cover the full size of the bed. The front line of the net was tied to these stakes and they were sprung or set back as if all of the net was in a roll. A short stake with a line attached to the outside edge ran to the bough house, a stick about three feet long was placed under a catch called the hub, and the other end of this stick was placed against another peg driven in the ground. When the short stick was pulled from underneath the crotch, the spring poles forced the net over the bed; the short sticks raised the net about three feet; and of course it was all done very quickly.

Another method was employed later in the season; a place was baited with buckwheat, sometimes with broomcorn seed, or wheat, for a week or two, and, when a large body of birds was collected, the net was set. A much larger net is used now. Then is when we got our live birds for shooting matches. In the spring

time is money, and the netters could save many more dead than alive.

I knew of a man paying \$300 for the privilege of netting on one salt spring near White River. It was a spring dug for oil, boarded up sixteen feet square. He cut it down a little and built a platform, and caught once or twice each week. He got 300 dozen at one haul in this house. He said they were piled there three feet deep.

I once pulled a net on a bait bed and we saved 132 dozen alive, but many got out from underneath the net, there being too many on the bed. The net used was 28x36 feet. I have lost 3,000 birds in one day because the railroad did not have a car ready on the date promised. I threw away what cost me \$250 in eight hours, fat birds, because the weather was too hot. I have bought carloads in Wisconsin at 15 and 25 cents per dozen, but in Michigan we usually paid from 50 cents to \$1 a dozen. I have fed thirty bushels of shelled corn daily at \$1.20 per bushel, and paid out from \$300 to \$600 per day for pigeons.

I never allowed game to be shipped to me out of season; if it came, I never paid for it.

About two years ago I was told by a man who just got back from the Northwest, Calgary, that the birds were so thick in the north that they darkened the sun. They were probably nesting, as he said they were seen every morning. . . . Up to ten years ago I was

shooting on the Mississippi bayous for twenty-five years, and used to see and kill some pigeons nearly every spring, from the middle of March to the middle of April. We have shot seventy-two pounds of powder in my camp in thirty days, the party consisting of three men; and two of us have killed twelve barrels of ducks (Mallards) in four days. On the Detroit River I have shot, in one week, mostly redheads, the following on different days: 102, 119, 142, 155. . . .

[I have quoted from the latter part of Mr. Phillips' letter to show how plentiful other kinds of birds were in the old days.]

Under date of Nov. 1, 1904, Mr. Phillips writes as follows:

"In regard to dates, would say that the last nesting of birds set in at about 5 P.M., May 5, 1878, on the southeast side of Crooked Lake. Express charges on barrels to New York from Michigan were \$6.50, from Wisconsin \$8; on live birds \$3 per cwt."

Mr. Phillips also incloses a letter written to him by Mr. Osborn, of Alma, Mich., under date of February 23, 1898, which reads:

ALMA, MICH., February 23, 1898.

FRIEND H. T. PHILLIPS:

Yours with the questions to be answered received, and will say:

. . . There have been several bodies nesting in

Michigan at the same time, and I will give the years and places that I was out. In 1861 a large body of birds were in Ohio roosting in the Hocking Hills, my first year out. We were at Circleville, and my company shipped over 225 barrels, mostly to New York and Boston. The birds fed on the corn fields. In 1862 the birds nested at Monroe, Wis. We commenced in May and remained until the last of August. The several companies put up some ten thousand dozen for stall feeding after the freight shipment. Express charges on each barrel were from \$7 to \$9. In the fall of 1862 we had fine sport shooting birds in the roost at Johnstown, Ohio (now Ada), some four weeks. Then the birds moved to Logan County. After two weeks the birds skipped South, it being December and snow on the ground.

In 1863 the birds nested in Pennsylvania. We had some fine sport at Smith Port and at Sheffield. We located at Cherry Grove, six miles from Sheffield. The birds fed on hemlock mast. There were other nestings in Pennsylvania at the same time. In 1864, at St. Charles, Minn., we had some fine sport, but our freights were high to New York, so we came to Leon, Wis. A heavy body was nesting in the Kickapoo woods, and several companies of hunters located here. In 1865 a heavy nesting was in Canada, near Georgian Bay. We were at Angus Station on the Northern Railroad, and the snow was two feet under the nesting. We next went

to Wisconsin, where a heavy snowstorm broke up the roosts. We were at Afton, Brandon and Appleton. We then went to Rochester, Minn., the end of the railroad. At that time birds nested in the Chatfield timber. We then went to Marquette in the Upper Peninsula and camped on Dead River. A heavy body had got through nesting, but worlds of birds were feeding on blueberries.

This was the year the *Pewabic* sunk. Mr. George Snook had 1,400 barrels of trout and whitefish on her. We went up on the *Old Traveler* and came down on the *Meteor*. In 1866 the birds nested in a heavy body near Martinsville, Ind. We caught some birds at Cartersburg. After we closed up in Indiana we went to Pennsylvania. There was a heavy nesting near Wilcox, at Highlands. In gathering squabs five of us got a barrel apiece, which netted us \$75 to \$100 per barrel in New York. They struck a bare market.

In July we had a big time with young birds at Fort Gratiot, near Port Huron, from the Forestville nesting. Mr. H. T. Phillips of Detroit was chief of a party which had fine shooting on a Mr. Palmer's place. In six days I shipped thirteen barrels to Tremain & Summer, New York, and received a check for over \$400. They returned me about one-half what they sold for.

In 1867 we were in Ohio, Wisconsin and Minnesota, and caught more or less birds on bait. The birds were broken up by shooting and deep snow. In 1868 there

was a large nesting near Manistee, and we did some big catching, shipped by steamer to Grand Haven, then via rail. In April and May was also at Mackinac and North Port and in June did some catching at Cheboygan, and here I made our crates of split cedar and floated the birds down the river six miles on two canoes lashed together, and had to transfer over the dam before reaching the little steamer to Mackinac, twelve miles, and then transferred to the Detroit boat. The birds were shipped to H. T. Phillips & Co. At Cheboygan I fed over one hundred bushels of corn and wheat for bait.

In 1869 the birds were in Canada, Michigan, Indiana and Wisconsin, all at the same time, and shooters broke them up. We located a body at Oakfield, Wis., and had a big catch until the farmers broke them up. The birds were pulling wheat badly; other feed was gone. The birds nested in Michigan, up from Mt. Pleasant, but too far inland to get them out. In 1870 the birds nested near Goderich, Can. Did not do much there. We then went to Glen Haven and caught some birds. Then we went to Cheboygan; sent more or less live birds to H. T. Phillips & Co., of Detroit. In 1871 we located a large body at Tomah, Wis., and did some heavy shipping. We used three tiers of ice from a large icehouse, and the express per barrel was \$12 to New York and Boston. We also shipped from Augusta, Wis., express, \$13.50 per barrel. A nesting at

Eau Claire, but we could not get to do much with them there. In 1872 a large nesting near South Haven, Mich. We located at Bangor and had a big catch in some big snowstorms. Another body near Clam Lake, end of railroad. In 1873 we did baiting in Ohio and Wisconsin, but located no nesting. In 1874 the birds nested at Shelby in two different locations and another at Stanton, Mich.; small body at Stanton. We did heavy shipping at Shelby, from one to three cars per day, both alive and dead. The birds nested this year at Shelby, two places, and at Stanton, and one at Mill Brook and at Frankfort and at Leeland, and probably at other points we did not learn of. In 1875 was not out, only baiting near St. Johns, Mich. In 1876 a heavy nesting at Shelby, Mich., and at Frankfort. I caught at Shelby and at Glen Haven heavy shipments. In 1877 was not out, but did some baiting at Eureka. In 1878 a heavy nesting between Petoskey and Cheboygan. H. T. Phillips located at Cheboygan. I caught at several points between the two cities.

The above is part of my experience with the birds, since which time I have kept no record of the movements, but will say that during the winter season birds have nested in large numbers in the southern States; in Virginia, Tennessee, Arkansas and Missouri. For a great many years the birds have been moving west. Last winter I was in Southern California, and a body of pigeons were west of Los Angeles, among the acorn

timber. There are worlds of feed in the foothills, for thousands of miles, to feed the birds. They are a greedy bird and will eat everything from a hemlock seed to an acorn. I have known them to nest on hemlock mast alone in Pennsylvania, and in Michigan on the pine mast after the beech mast was gone. Most of the nesting in Michigan happens March to July, and then they skip farther north and return in wheat seeding.

ALMA, MICH., February 24, 1898.

FRIEND H. T. PHILLIPS:

I will give you a few catches. In 1862, at Monroe, Wis., George Paxon, of Evans Center, N. Y., and myself made one haul of 250 dozen five miles south of the city on corn bait in a pen 32x64 feet with nets sprung across the top. We fed at this bed over five hundred bushels of corn at 25 cents per bushel, and at our other beds nearly as much. After the flight-birds were over, with a single net sprung on the ground we have taken 100 dozen at a time.

At Augusta, Wis., in 1871, Charles Curtin, then of Indiana (dead now), over one hundred dozen; William W. Cone of Masonville, N. Y., Samuel Schook of Circleville, Ohio, and some other boys, 100 dozen and over. L. G. Parker of Camden, N. Y., C. S. Martin, the Rocky Mountain hunter of Wisconsin, E. G. Slayton of Chetek, Wis., are old trappers and could tell of

big catches. In 1868, at Cheboygan, I took over six hundred fat birds before sunrise. I sold to the United States officers at Mackinac for trap shooting, also to Island House. In 1861 there were only a few professionals: Dr. E. Osborn of Saratoga, N. Y.; William N. Cone, Masonville, N. Y.; John Ackerman, Columbus, Ohio; L. G. Parke, Camden, N. J.; James Thompson, Hookset, N. H.; S. K. Jones, Saratoga, N. Y.; George and Charles Paxon of Evans Center, N. Y., and maybe a few others. After this time, trappers increased fast. More salt was used in Michigan for bait than any other State. I paid at Shelby \$4 per barrel. Big bodies of pigeons were drowned off Sleeping Bear Point because of fog and wind, while trying to cross Lake Michigan. I have seen them.

In the Logan County roost, Ohio, I killed with two barrels, of a six-bore shoulder gun, 144 birds. The other boys killed nearly as many with smaller guns; we shot on the roost in the dark. Our plan was to fire one barrel on the roost and the other as the pigeons flew. The highest price paid per dozen was in New York City—\$3—by Trimm & Summer from Pennsylvania.

For a good many years the birds were in the eastern States, with heavy catching in Massachusetts and New York, also Pennsylvania, and the hunters worked into Canada, then into Ohio, and so on to Michigan and Indiana, long before they took in Wisconsin and Minne-

sota, after they left the eastern country for the west. A big body was at Grand Rapids in 1858 or 1859, before I joined the band.

The trappers at Grand Rapids were Dr. Osborn, Cone, Ackerman, the two Paxons, Latimer, and a few others, who did some heavy shipping, catching the birds on the salt marshes. I have no earlier records for Michigan,

I kept no record of the amounts shipped from different points. The old books of the express will show if they have kept them. I wait to see your report, and remain,

Yours truly,

E. OSBORN.

DETROIT, MICH., November 2, 1904.

W. B. MERSHON:

DEAR SIR:—Last evening I looked over some old papers and found a few memoranda that lead to my making some changes in my notes to you in regard to the date of last nestings in our State. I also find my later surmise confirmed by a letter from one of the first traveling pigeon-catchers in the business, Ephraim Osborn, whose uncle, Dr. Osborn of Saratoga, N. Y., was one of the original catchers. You will note by Mr. Osborn's letter that he has been a shipper of mine for a long time. I am well acquainted with him and knew all the men he mentioned (with many others) at the Shelby nesting. There were nearly six hundred names

in the register book of pigeoners in Wisconsin. Nearly every one of the farmers, and their wives and daughters, were pigeon catchers.

In regard to the dates of last nesting: 1878 was the last year that the catch amounted to enough to keep men in the business. I find I was at Cheboygan part of the time, and got only a small number of birds in 1880, but some few nested (small body) that year.

Yours truly,

H. T. PHILLIPS.

CHAPTER XI

Recollections of "Old Timers"

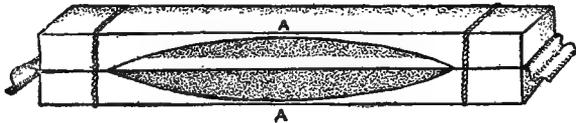
MR. OSCAR B. WARREN, now of Houghton, Mich., has been interested for years in collecting data about the Passenger Pigeon, and kindly turned over to me his entire budget. Among his letters is the following from Mr. H. T. Blodgett, Superintendent of Public Schools, Ludington, Mich., dated November 19, 1904:

. . . Your pigeon is a stranger to me, or rather has been a stranger for six or more years. I can distinctly remember clouds of them, darkening the sky, almost, in Pennsylvania, thirty years ago. Later, in Michigan, they were abundant, coming to this part of the State as soon as the snow was gone, picking up the beech nuts and "shack" of the woods. After a few weeks' flying about and feeding they would disappear; reappearing again in June, young pigeons, fat, and the choicest eating. They would stay a few weeks, not more than about three weeks, going about July 1. During this visit the birds haunted the thick woods, and would call from the shade of the leaves of beech, maple, and hemlock trees through the heat of the day,

feeding mornings and evenings on the sprouted beech nuts under the leaves.

There would often be a third appearance in September, when I have seen buckwheat fields blue with them. Also fall-sowed wheat fields would be so covered with them that the farmer had to watch his fields to save the seed he had sowed.

During the spring and also the fall visit, flocks searching for feeding ground could be called down from flight and induced to light on trees near where the call was sounded. The call was one in imitation of the pigeon's own call, given either as a peculiar throat sound (liable to make the throat sore if too often repeated) or with a silk band between two blocks of wood, like this



The pigeon call

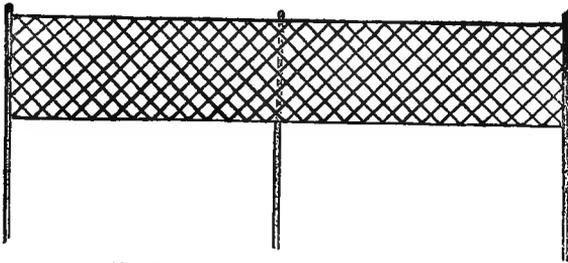
held between the lips and teeth and blown like a blade of grass between the thumbs. By biting or pressing with the teeth at (A) (A) the tension upon the silk band would be increased, raising the tone of the call or relaxing for a lower note. Cleverly used, it was very successful in calling pigeons feeding in small flocks to alight.

Much to my regret I have seen none of the beautiful birds for about six years. The savage warfare upon them, from nesting place to nesting place by pot-hunters and villainous fellows who barreled them for market, with nets and every brutal means for wholesale destruction, has driven them, I know not whither. If there are considerable flocks of them anywhere, I should be glad to know it.

I wish I might help you. Such things as are here hastily recalled and written will not be likely to afford anything of interest, but if there is any thought or anything in it, it is cheerfully given.

On the great sand bluffs which line our shores in many places, flocks of pigeons in passing would fly so low that a man with a club could knock them down. At Lincoln, three miles north of here, nets were put on the top of the hills, like gill nets, to catch them in their flight.

They were never very successful.



Showing the method of placing pigeon net

(Notes by the Allen Brothers, Joseph and Isaac, of Manchester, Mich. A copy of their letter was received through kindness of L. Whitney Watkins, of Manchester, Mich.)

We have had about fifty years' experience in the business [pigeon catching], as we used to help our father as long ago as we can recollect, he being one of the best pigeoners in his day, working a great deal at the business in the summer season. Until we were twenty years old we lived on the shores of Lake Ontario in Wayne County, N. Y.

The pigeons used to have a flying course along the shore of the lake on their way to the Montezuma marshes after salt. Pigeons are very fond of salt, or, rather, brine. It seems to be a necessary article for them. Their course was generally from west to east. They seldom flew west by the same route. How far they came, we could not tell; perhaps from this State or perhaps farther west. Sometimes they would go west by the same route. If so, they were much easier to catch than when going east. When going east they were looking for salt; when west, for food.

They used to commence to fly about the 1st of April and keep it up until the middle of June. After that time they would scatter over the country, and did not fly in large flocks as in the spring.

It would be hard to make any estimate of their numbers that people would believe at this late day. I was going to say that a thousand million could have been seen in the air all at once. There would be days and days when the air was alive with them, hardly a break occurring in a flock for half a day at a time. Flocks stretched as far as a person could see, one tier above another. I think it would be safe to say that millions could have been seen at the same time.

In the year 1854 we moved to Michigan, settling near Adrian, where we found pigeons quite plentiful. When they were flying here (Adrian) they seemed to scatter over the State, having no regular course.

The supply of pigeons kept very regular here for about twenty-five or thirty years. About the time we came west the pigeons became scarce in New York, and very few have been seen there since. It is five years (1890) since we have seen or heard of any being seen in this State (Michigan) or in any other.

Our "pigeoning" was more for sport than profit, and we liked a nice broiled pigeon for breakfast about as well as anything we could have, especially when they were worth \$6.00 per dozen. If the pigeons had been sent to the New York market they could have been sold for big prices, as pigeons sold for larger and better prices than any other game in that market. Our father did not like the idea of sending pigeons to New York for a market.

After we came to where we now live (Cambridge), and when I was going to Adrian, I stopped at father's on my road. He had been out catching pigeons that morning and had secured 600 by 10 o'clock. He said to me:

"I wish you would take these pigeons to Adrian and sell them if you can. Take them to the depot and sell them for 10 cents per dozen. If you cannot sell them, give them to the workmen in the shops."

I thought 10 cents was pretty cheap, so I went to selling at 20 cents per dozen. When the men came out of the work-shops I sold them all at 25 cents per dozen. After I left for town, father caught 500 more, and took them to Adrian the same day and sold them for 10 cents per dozen. If the same lot of pigeons had been shipped to New York, they would probably have brought \$2 or more per dozen.

About a year from that time we caught 600 in one day, and made up our minds we would ship them to New York. We took them to Adrian to ship. When we got to Adrian we saw father, who, after inquiring about our intentions concerning their shipment, said:

"It is foolish for you to send them, as they will never be heard from."

He advised us to dispose of them for 25 cents per dozen; this was the highest price pigeons were worth in Adrian. To please him we tried to sell them for that price, but could not, so, taking them to the express

office, we shipped them. In about four days the returns came, netting us 70 cents per dozen, about the lowest price we ever got. They explained that the pigeons had been poorly handled or they would have brought more. This was thirty-five years ago, *and these were probably the first pigeons shipped from this State to New York.*

We have shipped thousands since. They would probably average \$2 per dozen. We have sold them as high as \$3.75 per dozen and have seen them quoted as high as \$6 per dozen. A pigeonier from Pennsylvania told us he shipped two barrels at one time and got \$5.50 per dozen. We caught 2,400 one week, having them all on hand at one time. We got a market report from New York where they were quoted at \$6.50 per dozen. We packed and shipped ours as soon as possible. When they reached market they sold for \$1.50 per dozen. The army of pigeoniers had struck a big nesting in the State of Wisconsin the same week we caught ours, and they shipped them to market by the wholesale. The market dropped from \$6.50 to \$1.25 in one week.

The pigeon business was very profitable for men who were used to it, and there were probably from one to three hundred men in the trade. When the pigeons changed their location, the pigeoniers would follow them, sometimes going over a thousand miles.

When this army of men had good luck they would ship them by the hundreds of barrels. Probably

as many as five hundred barrels have been shipped to New York and Boston in one day. Our commission man in New York wrote us that 100 barrels a day could be sold there without affecting the market but very little.

I was at a pigeon nesting in the State of Pennsylvania where there were from three to five hundred men catching pigeons and squabs. It was a great sight to see the birds going back and forth after food. When nesting in such large bodies, they leave the food in the near vicinity for their young. If they can find plenty of food, they nest in large bodies; if not, they scatter over the country and nest in scattered colonies.

The nesting I mentioned in Pennsylvania was within one mile of the cleared lands. We camped within two miles of the nesting. The pigeons kept up a continual roaring by their combined twittering and cooing, so that it could be heard for miles away by night as well as day.

Sometimes it is almost impossible to catch the pigeons. At the nesting mentioned the most experienced hands found it impossible to take large numbers. The whole crowd of men could not catch more than one man ought to have caught under the circumstances.

The young pigeons (squabs) were much sought after in New York and Boston, and if sent in moderate numbers brought big prices, usually about two dollars per dozen. When the squabs were old enough to market,

the army of pigeoners (estimated to be about five hundred) commenced taking them. Entering the woods in which the nesting was located, they cut down the trees right and left, cutting the timber over thousands of acres. When a tree fell, bringing with it the squabs, they picked the young birds up, sometimes getting as many as two dozen from one tree. The large trees, which might have yielded fifty or a hundred, were left standing. Our company of five took in two days thirteen barrels of squabs, averaging 400 to the barrel.

There were shipped from two stations on the Erie road in one day 200 barrels of these young pigeons. If they had been old birds, they would not have broken the market, but this was too many squabs, and the price dropped 25 to 45 cents per dozen.

Osborn told me that he once caught 3,500 at one catch. It was at a big nesting in the State of Wisconsin. He had an enormous flock baited. He said that he put out as high as forty bushels of shelled corn at one time on the bed where he caught this large number. For a trap, he had constructed a board pen built up from the ground four or five feet high. This pen was about one hundred feet long by twenty feet wide. He took three large-sized nets, and, tying them together, set them on this pen. He had feeding pens built by the side of the trap-pen, so when he made a catch he could drive the pigeons into the feeding pens and fatten them for market, these "stall-fed" birds bringing much

higher prices than poor birds. This large catch filled all his feeding pens. He said he could have made another catch fully as large as the one just mentioned, in one-half hour afterward but, having no room, he could not take care of any more.

This method of catching pigeons was much the best when they were to be preserved alive. It was rather a late invention in the pigeon-netting business. We have caught with one net in the same way as many as four hundred at one time. With a net set on the ground we have taken from three to five hundred a great many times. In this latter manner, a brother of mine caught 556 with one net. Without help, in one day I have caught from thirteen to fourteen hundred out of a flock as they were flying over.

We have two ways of pigeoning. One is catching out of flocks as they are flying over; the other is catching baited pigeons. One way of bringing the flocks out of the air was by using live pigeons kept for that purpose. These we called "fliers" and "stool-pigeons;" generally from three to five fliers and two stool-pigeons. For the "fliers" and "stools" we made what we called "boots" of soft leather. These were slipped on the leg a little above the foot. To the boots of the fliers were fastened small stout cords from two to four rods long, on the other end of which was fastened a small bush. If the birds were flying high, we used a longer string.

The stool-pigeons were fastened to stools and set on the "bed"; when the net was sprung the birds were under it. The bed over which the net was sprung was the same size as the net, or from thirty to forty feet long by twelve to fifteen feet wide. It was made by clearing the ground of all rubbish, and making it as clean as a garden. Before the net was set it covered the bed. We tied a rope to each of the front corners. On the front side we used two spring stakes fastened in the ground at the ends of the ropes, which were tied to the stake about five feet from the ground. At one of the stakes we built a bough house so that the rope from the net would pass through the house. The back corners were fastened with small, notched stakes which were driven in the ground so that the notches faced the bough house. We used what we called "flying staffs"—small stakes about four feet long and the thickness of a broom handle, with a notch cut in one end. We also used two more small stakes to set the flying staffs against, to hold the net when set. It took two to properly set a net. Each one took a staff, stepped in front, one at each corner, caught hold of the rope, and crowded the front edge back of the back edge about six inches. Then the flying staffs were placed against the small stakes, notch end against the ropes. The net was now crowded to the ground and the staffs slipped into the notches of the stakes to hold the net in place. The slack of the net was laid alongside the rope

on the ground. By crowding the net back, it sprung the stakes over, which sprung the net. The stool-pigeons were made to hover by pulling a line reaching into the bough house, where the pigeonier awaited them with his fliers.

When a flock of pigeons came near enough to spy the fliers, the pigeonier threw the tethered birds into the air. They quickly flew the length of the line and then hovered near the ground. They had the appearance of feeding on the bed, which, of course, has been supplied with food. The wild flock alighted and began feeding. The net rope passing through the bough house was pulled by the pigeonier, and this drew the flying staffs from under the hooks, the staffs raised the front edge of the net up about four feet, and over it went as quick as a flash, covering or catching perhaps five hundred at once.

Letter from James B. Purdy, of Plymouth, Mich. :

November, 1894.

OSCAR B. WARREN,
Palmer, Mich.

DEAR SIR:—Yours of November 24 received, asking me to send notes on the Passenger Pigeon. In the beginning I would say that I am now fifty-one years of age, and I am writing this under the roof of the old homestead where I was born, hence my memory of the passenger pigeon for this locality extends back to my



BAND-TAILED PIGEON (*Columba fasciata*)

Often mistaken for Passenger Pigeon

early boyhood, when millions of pigeons visited this locality on their spring and fall migrations, and during their spring migrations comparatively few halted with us to feed, but the great majority of them winged their way in a high-flying flock of unbroken columns, sometimes half a mile in length, to the north and west, probably to their breeding grounds; but on their return, from the first to the fifteenth of September, they would swarm down on our newly sowed wheat fields until acres of ground would be blue, and when they arose they would darken the air and their wings would sound like distant thunder. They were not so shy at this time of the year, as part of them were young birds, which were easily distinguished from the old ones by their speckled breasts; and I would here state that, during both spring and fall migrations, their greatest flight seemed to be from sunrise until about nine or ten o'clock A.M.

My father was an old pigeon catcher, and it was during these fall migrations that he would go out in the middle of a wheat field, build his bough house, set his net, and prepare for the finest sport in which it was ever my good fortune to participate; and many a time have I been with him when he has caught hundreds of them in a single morning. You may ask, What did you do with so many pigeons? Well, I will tell you. We skinned out the breasts, pickled them for two or three days in weak brine, and then strung them on strings, from one hundred and fifty to two hundred on a string,

and hung them up to dry in the same manner as dried beef (I mean the breasts). Of course the remainder of the carcasses we cooked for immediate use, or as much of them as we needed for the family. Let me tell you that those pigeon breasts were a dainty morsel, and would last as long as dried beef and was far its superior in taste.

While rummaging through the attic a few days since, I came across the old pigeon stool upon which the stool-pigeon was tied, which my father used so many years ago, and it carried me back to my boyhood and conveyed to my mind vivid memories of the past.

The pigeons continued to visit us in great abundance for a number of years, although there would be an occasional season when there would not be so many. As the years rolled by they became fewer in number until in the fall of 1876, when I saw my last Passenger Pigeons (a small flock of ten or fifteen), I tried hard to procure some for my cabinet, but failed.

One peculiar habit of the Passenger Pigeons was that during their migrations, should they alight and their crops were filled with inferior food, they would vomit it up in order to fill themselves with something better should they find it.

F. N. Lawrence stated in *Forest and Stream* of February 18, 1899, that when a boy, in the late forties, he spent most of his time on his grandfather's country seat at Manhattanville, on the North River. In those

years the wild pigeon flew south on both sides of the North River by the thousands in the fall, and in lesser numbers flew north in the spring.

He also wrote: "These migrations occurred with the utmost regularity. The first easterly storm after September 1st, clearing up with a strong northwest wind, was as surely followed by a flight of wild pigeons as the sun was to rise. During such storms, I have passed many a sleepless night watching to catch the first change of wind, and when it veered northwest, daybreak found me on the river bank watching for the flight that never failed. Ah! how my heart jumped as flock after flock of wild pigeons came flying over Fort Washington like small clouds. I have shot a great many of them, but alas, like the buffalo, they are almost exterminated."

I have run across what was evidently my first diary, dated 1872, when I was fourteen years old. I make the following extracts from it:

April 6th. "Pigeon flew this morning."

Then on April 8th I mention 9 pigeons shot in the afternoon by my father, and say "they flew very thick in the morning."

The record, like most boys' diaries, seems to have many skips, for the next item about pigeons is on the 11th of May, saying that I shot 2 that day and on the 1st of June I mention that I killed 3 pigeons in the morning, "the most I ever have shot at one time."

My marksmanship seems to have improved after that,

for on the 7th of June I mention shooting 7, and on the 8th 8 (I used to go every morning), and on the 10th I got 8 again and on the 11th 12, and so on with varying success. On June 11 I mention that the young ones were beginning to fly plentifully.

W. B. M.

Extract from a letter written by the late Alexander McDougall of Duluth, February 8, 1905:

I have been about Lake Superior since 1863. Have never known any rookery near the lake or in Lake Superior Basin, although I think they did breed near Lake Superior, for they were in such great quantities about the lake during the whole summer. In 1871 when this town (Duluth) was first building, there were millions of them about here. In the Lake Superior region there are lots of berries but no beech nuts, except near Grand Island, 40 miles east of Marquette. It is likely if there was any roosting on Lake Superior, this would be the most favorable place. . . . The pigeon was numerous on Lake Superior in 1872, for I have recollections of catching some that year while captain of the Steamer *Japan*. During foggy weather and at night, they would alight on the boat in great numbers, tired out. On foggy mornings, the blowing of our whistle would start them up. Often, when they would light on the eave of our overhanging deck, we could sneak along under the deck and quickly snatch one. I

remember having caught several in that way. As clearly as I can remember, they left all at once along about 1875. I have seen a few here along about 1882, and one fall in October, I think, of 1884, I saw two or three, the last I remember of them.

KALAMAZOO, MICH., June 13th, 1905.

WM. B. MERSHON, SAGINAW, MICH.:

* * * * *

It seems too bad that this noble bird should have been blotted out. The last flock, a small one, that I ever saw was in 1891. I saw pigeons in 1883, 1885 and 1886.

I have been in their nesting grounds. The males and the females sit on the nest on alternate days. When their big nesting was near South Haven in this State, the birds used to fly over this town every day in their quest for food, some of them going fully seventy-five miles in an air line from their nesting. One day it would be a continuous stream of male birds and the next day it would be the females.

How the netters did massacre them and ship them away by thousands and thousands. Many were kept alive and shipped all over the country for pigeon shoots. The last wild pigeons ever used for this purpose that I know of was at John Watson's Grand Grossing, Chicago, Illinois, in 1886. I asked Watson, in February last, where he got those birds, and he said

from Indian Territory, so I think the netters finally cleaned up what was left of the big flight that perished from the sleet and fog at their last nesting in Michigan, near Petoskey, in 1881.

Their nests were built and eggs laid in late April. A big wind and storm of sleet came up just at dusk and the birds left; there was a big fog on Lake Michigan, and the birds were swallowed up by the storm; anyhow they disappeared then and there. I have heard tell of the beach being strewn for miles with dead pigeons, and I heard an old woodsman tell of the stench arising from dead pigeons in the woods.

It was that storm of ice that surely wiped them out.

I was at Petoskey in 1882, and no pigeons showed up that year.

What a host of memories of boyhood days are recalled, when one thinks of the wild pigeons. I can see myself a boy again, equipped with a long, single barrel shot gun, shot pouch and powder flask a-dangling, a box of G.D. caps in my pocket, and I a-sneakin' and a-sneakin' up for a shot at an old cock pigeon perched away up on a dead limb at the top of a tall tree. How handsome is that old cock with neck outstretched and tail a-streamin', the richness of his coloring, the red of the breast, the metallic sheen of that outstretched neck is of marvelous luster as bathed in the glories of the morning sunlight. He turns his head! He is onto that boy who is sneaking so carefully along the old

rail fence. Carefully the gun is raised and aimed; the trigger is pressed. "Ker-whang" in a cloud of smoke is the loud report. The old cock, startled, flies away. "Missed him, by gosh!" is the boy's lament as he starts to reload, whilst in unison with the rattle of the grains of powder in the flask, there comes drifting down on the morning breeze, slowly wafting here and there, a long tail feather from that noble bird to show that though missed, yet the aim was true.

Yours truly,

BEN O. BUSH.

KALAMAZOO, MICH., June 17th, 1905.

DEAR MERSHON:

Do not understand me as to my assertion, that in nesting time the wild pigeons in feeding, the males always alternate with the females, each having a day off and a day on throughout the period of incubation and the rearing of the young. It depended upon the amount of food and the distance that they had to go to get it, and they changed their habit according to the conditions. If they had to make a long flight, as was the case when they passed over here, then they alternated; but I will agree with you that their habit in nesting time when food was plenty and not far away, was for the males to sit first in the morning, then the females, and sometimes the males a second time, all in the same day. Pigeons require a great deal of water, and sometimes their crops

would show that they had been to water prior to their return flight, while at other times the food in their crops would be dry.

Some other boys and I had a lot of wild birds that we bought alive from a netter. We put the birds in the loft of a big barn where there was a lot of beans that had not been threshed. We would put in a big trough of water for them every day. The way those birds threshed out those bean pods was a caution. They became very fat and fairly tame. What wouldn't I give to hear the call note of Tete! Tete! Tete! of the pigeons once more.

Yours truly,

BEN O. BUSH.

J. S. Van Cleef of Poughkeepsie, N. Y., wrote in *Forest and Stream* of May 20, 1899, as follows:

For many years up to about 1850, flocks of wild pigeons in the fall were quite abundant, and were very often taken with nets, which was a very favorite way of capturing them at that time, but very few, if any, have been taken in this manner since that time. A few small flocks appeared in the fifties, but not to such an extent that an attempt was made to capture them through the aid of pigeon nets, and I find upon inquiry that the experience of others agrees with my own.

The last flight of pigeons of which I have any knowledge occurred in the seventies, where they nested in the

mountain range south of the Beaverkill in the lower part of Ulster County. There were two flights about this time, one small one, and in the course of two or three years this was followed by a flight where the pigeons appeared in great numbers.

This flock had nested in Missouri in the month of April, and the most of the squabs were killed by those who were in the business of furnishing squabs for the market.

When the nesting was over the entire flock went to Michigan, where they nested again, and they were followed there by the same persons who again destroyed most of the squabs. When they left Michigan they took their flight eastward, and telegrams were sent all over that part of the country where the pigeons would be likely to nest a third time, and as soon as they settled in the Catskills these persons were apprised of the location and very soon appeared on the scene.

The party, about thirty strong, stopped at Monson's, whose house was located on the upper Beaverkill, about three miles from the nest.

This nest was a mile from the Willewemoc Lodge, where I happened to be during the whole time that the pigeons were in their roost. It was claimed at the time that the squabs were sent down to New York by the ton, but as to this I have no personal knowledge, though I do know that during the nesting all, or nearly all, of the squabs were destroyed, and this was done by

invading the grounds at night and striking the trunks of the trees with a heavy axe or sledge hammer, upon which the squabs would tumble out of the nests on the ground, and be picked up and carried to Monson's and shipped to New York the next day.

I do know, however, that from a natural ice house and the ice house belonging to our club, these persons obtained not less than fifteen tons of ice for the purpose of preserving the squabs.

This is the last flight of pigeons that has ever taken place in this part of the country, so far as I have any knowledge, and I am very sure that if there had been any I would have known it.

POUGHKEEPSIE, N. Y., May 12.

CHAPTER XII

The Last of the Pigeons

From "The Auk," July, 1897, under the title "Additional Records of the Passenger Pigeon (*Ectopistes migratorius.*)"

MOST of the notes on the Passenger Pigeon recorded in the past year have referred to single birds or pairs. It is with much pleasure that I now call attention to a flock of some fifty, observed in southern Missouri. I am not only greatly indebted to Mr. Chas. H. Holden, jr., for this interesting information, but for the present of a beautiful pair which he sent me in the flesh, he having shot them as they flew rapidly overhead. Mr. Holden was, at the time (December 17, 1896), hunting quail in Attie, Oregon County, Mo. The residents of this hamlet had not seen any pigeons there before in some years.

Simon Pokagon, Chief of the remaining Pottawattamie tribe, and probably the best posted man on the wild pigeon in Michigan, writes me under date of October 16, 1896: "I am creditably informed that there was a small nesting of pigeons last spring not far from the headwaters of the Au Sable River in Michigan." Mr. Chase S. Osborn, State Game and Fish Warden of Michigan, under date, Sault Ste. Marie, March 2, 1897,

writes: "Passenger Pigeons are now very rare indeed in Michigan, but some have been seen in the eastern parts of Chippewa County, in the upper peninsula, every year. As many as a dozen or more were seen in this section in one flock last year, and I have reason to believe that they breed here in a small way. One came into this city last summer and attracted a great deal of attention by flying and circling through the air with the tame pigeons. I have a bill in the Legislature of Michigan, closing the season for killing wild pigeons for ten years."

RUTHVEN DEANE,
Chicago, Ill.

From "The Auk," April, 1898, Vol. 15, Page 184, under the title,
"The Passenger Pigeon (*Ectopistes migratorius*) in
Wisconsin and Nebraska."

Our records of this species during the past few years have referred in most instances, to very small flocks and generally to pairs or individuals. In *The Auk* for July, 1897, I recorded a flock of some fifty pigeons from southern Missouri, but such a number has been very unusual. It is now very gratifying to be able to record still larger numbers and I am indebted to Mr. A. Fugleberg of Oshkosh, Wis., for the following letter of information, under date of September 1, 1897: "I live on the west shore of Lake Winnebago, Wis. About 6 o'clock on the morning of August 14, 1897, I saw a

flock of wild pigeons flying over the bay from Fisherman's Point to Stony Beach, and I assure you it reminded me of old times, from 1855 to 1880, when pigeons were plentiful every day. So I dropped my work and stood watching them. This flock was followed by six more flocks, each containing about thirty-five to eighty pigeons, except the last, which only contained seven. All these flocks passed over within half an hour. One flock of some fifty birds flew within gunshot of me, the others all the way from one hundred to three hundred yards from where I stood." Mr. Fugleberg is an old hunter and has had much experience with the wild pigeon. In a later letter dated September 4, 1897, he writes: "On Sept. 2, 1897, I was hunting prairie chickens near Lake Butte des Morts, Wis., where I met a friend who told me that a few days previous he had seen a flock of some twenty-five wild pigeons and that they were the first he had seen for years." This would appear as though these birds were instinctively working back to their old haunts, as the Winnebago region was once a favorite locality. We hope that Wisconsin will follow Michigan in making a close season on wild pigeons for ten years, and thus give them a chance to multiply, and, perhaps, regain, in a measure, their former abundance.

✓ ✓ In *Forest and Stream* of Sept. 25, 1897, appeared a short notice of "Wild Pigeons in Nebraska," by "W. F. R." Through the kindness of the editor he placed me in

correspondence with the observer, W. F. Rightmire, to whom I am indebted for the following details given in his letter of Nov. 5, 1897: "I was driving along the highway north of Cook, Johnson County, Neb., on August 17, 1897. I came to the timber skirting the head stream of the Nemaha River, a tract of some forty acres of woodland lying along the course of the stream, upon both banks of the same, and there feeding on the ground or perched upon the trees were the Passenger Pigeons I wrote the note about. The flock contained seventy-five to one hundred birds. I did not frighten them, but as I drove along the road the feeding birds flew up and joined the others, and as soon as I had passed by they returned to the ground and continued feeding. While I revisited the same locality, I failed to find the pigeons. I am a native of Tompkins County, N. Y., and have often killed wild pigeons in their flights while a boy on the farm, helped to net them, and have hunted them in Pennsylvania, so that I readily knew the birds in question the moment I saw them." I will here take occasion to state that in my record of the Missouri flock (*Auk*, July, 1897, p. 316) the date on which they were seen (Dec. 17, 1896) was, through error, omitted.

RUTHVEN DEANE,
Chicago, Ill.

From "The Auk," January, 1896, under the title, "Additional Records of the Passenger Pigeon (*Ectopistes migratorius*) in Wisconsin and Illinois."

I am indebted to my friend, Mr. John L. Stockton, of Highland Park, Ill., for information regarding the occurrence of this pigeon in Wisconsin. While trout fishing on the Little Oconto River in the Reservation of the Menominee Indians, Mr. Stockton saw, early in June, 1895, a flock of some ten pigeons for several consecutive days near his camp. They were first seen while alighting near the bank of the river, where they had evidently come to drink. I am very glad to say that they were not molested.

Mr. John F. Ferry of Lake Forest, Ill., has kindly notified me of the capture of a young female pigeon which was killed in that town on August 7, 1895. The bird was brought to him by a boy who had shot it with a rifle ball, and although in a mutilated condition he preserved it for his collection.

I have recently received a letter from Dr. H. V. Ogden, Milwaukee, Wis., informing me of the capture of a young female pigeon which was shot by Dr. Ernest Copeland on the 1st of October, 1895. These gentlemen were camping at the time in the northeast corner of Delta County, Mich. (Northern Peninsula), in the large hardwood forest that runs through that part of the State. They saw no other of the species.

RUTHVEN DEANE, Chicago, Ill.

From "The Auk," July, 1895, under the title, "Additional Records of the Passenger Pigeon in Illinois and Indiana."

The occurrence of the wild pigeon (*Ectopistes migratorius*) in this section of the country, and, in fact, throughout the West generally, is becoming rarer every year, and such observations and data as come to our notice should be of sufficient interest to record.

I have, in the past few months, made inquiry of a great many sportsmen who are constantly in the field and in widely distributed localities, regarding any observations on the wild pigeon, and but few of them have seen a specimen in the past eight or ten years. N. W. Judy & Co., of St. Louis, Mo., dealers in poultry, and the largest receivers of game in that section, wrote as follows: "We have had no wild pigeons for two seasons; the last we received were from Siloam Springs, Ark. We have lost all track of them, and our netters are lying idle."

I have made frequent inquiry among the principal game dealers in Chicago and cannot learn of a single specimen that has been received in our markets in several years. I am indebted to the following gentlemen for notes and observations regarding this species, which cover a period of eight years. I have various other records of the occurrence of the pigeon in Illinois and Indiana, but do not consider them sufficiently authentic to record, as to the casual observer this species and the Carolina dove are often confounded.

A fine male pigeon was killed by my brother, Mr. Chas. E. Deane, April 18, 1887, while shooting snipe on the meadows near English Lake, Ind. The bird was alone and flew directly over him. I have the specimen now in my collection.

In September, 1888, while teal shooting on Yellow River, Stark County, Ind., I saw a pigeon fly up the river and alight a short distance off. I secured the bird which proved to be a young female.

On Sept. 17, 1887, Mr. John F. Hazen and his daughter Grace, of Cincinnati, Ohio, while boating on the Kankakee River near English Lake, Ind., observed a small flock of pigeons feeding in a little oak grove bordering the river. They reported the birds as quite tame and succeeded in shooting eight specimens.

Mr. Frank M. Woodruff, Assistant Curator, Chicago Academy of Sciences, informs me that on Dec. 10, 1890, he received four Passenger Pigeons in the flesh, from Waukegan, Ill., at which locality they were said to have been shot. Three of the birds were males and one was a female. One pair he disposed of, the other two I have recently seen in his collection. In the fall of 1891, Mr. Woodruff also shot a pair at Lake Forest, Ill., which he mounted and placed in the collection of the Cook County Normal School, Englewood, Ill.

In the spring of 1893, Mr. C. B. Brown, of Chicago, Ill., collected a nest of the wild pigeon containing two

eggs at English Lake, Ind., and secured both parent birds. Mr. Brown describes the nest as being placed on the horizontal branch of a burr oak about ten feet from the trunk and from forty to fifty feet from the ground. He did not preserve the birds, but the eggs are still in his collection. The locality where this nest was found was a short distance from where the Hazens found their birds six years before.

Mr. John F. Ferry informs me that three pigeons were seen near the Des Plaines River in Lake County, Ill., in September, 1893. One of these was shot by Mr. F. C. Farwell.

In an article which appeared in the *Chicago Tribune* Nov. 25, 1894, entitled "Last of His Race," Mr. E. B. Clark related his experience in observing a fine male wild pigeon in Lincoln Park, Chicago, Ill., in April, 1893. I quote from the article: "He was perched on the limb of a soft maple and was facing the rising sun. I have never seen in any cabinet a more perfect specimen. The tree upon which he was resting was at the southeast corner of the park. There were no trees between him and the lake to break from his breast the fullness of the glory of the rising sun. The pigeon allowed me to approach within twenty yards of his resting place and I watched him through a powerful glass that permitted as minute an examination as if he were in my hand. I was more than astonished to find here, close to the pavements of a great city, the repre-

sentative of a race which always loved the wild woods, and, which I thought had passed away from Illinois forever.”

Mr. R. W. Stafford of Chicago, Ill., who has shot hundreds of pigeons in former years within the present city limits of Chicago, informs me that in the latter part of September, 1894, while shooting at Marengo, Ill., he saw a flock of six flying swiftly over and apparently alight in a small grove some distance off.

The above records will show that while in this section of the country large flocks of Passenger Pigeons are a thing of the past, yet they are still occasionally observed in small detachments or single birds.

A. B. Covert of Ann Arbor, Mich., wrote under date of Oct. 27, 1894: “Prior to the spring of 1881 the wild pigeon was everywhere a common bird of passage throughout the southern part of Michigan and nested commonly in the northern part. My home, in 1880, and for a few years after, was at Cadillac, Mich., and there was at that time a nesting place near Muskrat Lake in Missaukee County. Thousands of the birds were killed there. In the spring of 1881 the birds failed to make their appearance, and since then have been very rare. Nov. 23, 1892, I secured one male and two young females; these were killed in Scio, Washtenaw County, Oct. 9, 1893; one male near Ypsilanti, Mich., Sept. 27, 1894; one female killed at Honey Brook, Scio, Washtenaw County. There is also a

female bird in this city that was killed in Livingston County in October, 1892."

In a bulletin of the Michigan Ornithological Club, Vol. II, No. 3-4, July to December, 1898, Mr. A. B. Covert, the club's president, tells of seeing a flock of about two hundred pigeons. On Oct. 1, 1898, in Washtenaw County, Mich., he watched a large number of them all day.

Mr. Stewart E. White writes from Ann Arbor under date of Feb. 9, 1894: "My notebooks are not here so I cannot give exact dates, but I can remember distinctly every specimen I ever saw. I observed one flock of about sixty in Kent County in the fall, the last of October or first of November, 1890. At Mackinac Island at various times in September of 1889 I saw parts of a large flock, of say two hundred. My field experience in the western part of Michigan has been quite extensive and thorough, but these two flocks are all I ever recorded."

F. M. Falconer of Hillsdale, Mich., on Dec. 3, 1904, writes to Mr. Warren as follows: "During the last week of March, 1892, one of the students here shot a nice male. There were two together, but only one was secured. That summer I saw a small flock feeding in some thick woods along the banks of a stream in which I was fishing, in Chautauqua County, N. Y. There were eight or ten birds at least, and perhaps many more, as they scattered along in spots."

Mr. T. E. Douglas of Grayling, Mich., reports that in the year 1900 he saw three Passenger Pigeons on the East Branch of Au Sable River, Michigan, and about five years previous to that date a flock of ten was seen around George's Lake, which is eight miles southwest of West Branch, Michigan.

I also have a record of one pigeon taken by Mr. John H. Sage, in Portland, Conn., in October, 1889.

In May, 1904, Hon. Chase S. Osborn wrote:

DEAR MR. MERSHON: I haven't much information relating to the pigeons in this section of the country. In fact, the pigeon was practically gone from the north when I first visited the country in 1880. I remember seeing a flock of about three hundred in Florence County, Wis., which would probably be on a line fifty miles south of here, in 1883. In 1884 I saw a flock in that same section, in the woods northwest of Florence, of about fifty. In 1890 I saw six of these birds near the mouth of the Little Munoskong River in this county. This river empties into Munoskong Bay, about thirty miles southeast of here. In 1897 I saw a single wild pigeon, flying with the tame pigeons around this town. It was a remarkable sight and attracted the attention of many local bird lovers. There is no doubt that it was a pigeon, and it was absolutely alone as far as we could discover.

Upon inquiry here among old residents, I am told that there was quite a large roost on a beech ridge about forty miles west of here, which would be at a point north of the present station of Eckerman. I have been unable to learn just when this roosting place was discontinued, but as near as I can make out from comparing statements and records, it must have been in '78, '79, or '80.

I have heard of a large roosting place in northern Wisconsin which was used as late as 1874 by vast numbers of birds. It was located to the south and a little west of Lac Vieux Desert. At the head of the Pike River in Wisconsin, a point probably sixty-five miles south of here, and west into that State, the pigeons were seen in large numbers until 1872. As I understand it, in the early days they were very likely to frequent the same section year after year when not too much disturbed.

Mr. Newell A. Eddy of Bay City, Mich., under date of Aug. 7, 1905, wrote me as follows:

I find that I have but few notes regarding this species. On Sept. 13, 1880, I took a single bird near the city of Bangor, Maine. The sex was not determined. This was an unusual capture for the place and the time. A few years previous to that time, on a canoeing trip to the headwaters of the Penobscot River, I fell in with a small flock of a dozen or more in an old

burnt-over swamp, but was unable to secure any of them.

I presume that you have an abundance of notes on the Passenger Pigeon in this section of the country at the time it was so abundant here, as such information is readily obtainable from any of the old inhabitants of this locality. I had a very interesting interview the other day with Mr. C. E. Jennison of this city, who was one of our earliest settlers, and he gave me a great deal of information about this bird in the earlier days of Bay City. He also stated, which was quite interesting, that six or seven years ago he saw a few birds at Thunder Bay Island, near Alpena. This appears to be his last record of this species.

The most interesting information I have was obtained from Mr. Birney Jennison, his son, who advised me a few days ago while we were on our way to Point Lookout, Saginaw Bay, that about the 15th of July, this year, he saw a pair of these birds in a swale at Point Lookout while roaming through the woods. He and I visited the same locality about two weeks after that, but saw nothing of them. Of course there is some likelihood that the birds Mr. Jennison saw may have been the common Carolina doves. Mr. Birney Jennison also had a great deal of experience with this bird in his younger days about Bay City, and there would appear to be no question as to his ability to accurately identify the bird."

From Mr. Neal Brown, Warsaw, Wis., May 20, 1904:

MR. W. B. MERSHON, Saginaw, Mich.

DEAR SIR:—Your favor at hand with reference to the wild pigeon. It was, I think, three or four years ago that, in hunting with Mr. Emerson Hough near Babcock in this State in September, we killed an unmistakable wild pigeon. I saw a few pigeons in the woods in Forest County, in this State, about fifteen years ago. About seven years ago I saw three near Wausau and shot one of them. There was a pigeon roost for many years in Wood County, in this State, but it has long since disappeared.

When I was a boy in southern Wisconsin in the 60's and 70's, wild pigeons were so numerous as to almost darken the air. In the early 70's there was a small roost on Bark River, near Ft. Atkinson, in this State.

The wild pigeon had practically disappeared in southern Wisconsin as early as 1880, in fact, it was two or three years before that that I saw the last of them.

Charles W. Ward of Queens, L. I., New York, reports that in October, 1883, he saw a flock of at least one hundred Passenger Pigeons along the Manistee River in Township 26-5 and the following year about one dozen nested in a Spruce swamp near Orchard Lake on his old homestead. He often saw the nest and the birds. He remembers the time as being the season of

the year when huckleberries were ripe, for he was berry-picking when he first observed them.

The writer of the following newspaper clipping of recent date is emphatically skeptical regarding the present-day existence of even an isolated pigeon:

LAST PIGEON FLIGHT IN IOSCO IN 1880

MILLIONS PASSED THROUGH THEN, BUT THEY HAVE
NEVER BEEN THERE SINCE

TAWAS, MICH., July 27.—John Sims, county game and fish warden, ridicules the idea of flocks of wild pigeons being found in Iosco County, as was reported in some of the State papers. He says: "There are no wild pigeons in Iosco County; nor have there been any here since April 1, 1880. There fell about six inches of snow on that day, then the weather cleared and the sun rose bright and clear, but it was but for a short time, as the air was clouded with pigeons going westward. That was the first time they had been here for a number of years, and, although it was Sunday, everyone who had a gun was shooting or trying to shoot, and there were lots of pigeons killed that day in nearly all the streets of Tawas. There were simply millions of them going westward, and those that were killed were picked up out of the snow. Since that day there have been no wild pigeons here. We have lots of mourning doves here, and the writer has probably seen these.

There is a certain magazine that offers \$50 for a pair of wild pigeons, and I think the sportsmen would add another \$50 to it to have the wild pigeons with us again.

In the report of the Massachusetts commissioners on fisheries and game for the year ending December 31, 1903, is to be found the following:

The occurrence of the wild pigeon is a matter of public and scientific interest, and for this reason, and not because it is a game bird, reference to it is introduced here. Deputy Samuel Parker, who is perfectly familiar with the wild pigeon, makes mention of its appearance at Wakefield this year as follows: "In September a flock of wild pigeons, twenty-five or thirty in number, came over Crystal Lake." This notice of the presence of a species believed to be extinct is interesting and must be important to ornithologists.*

George King, guide and trapper, living in Otsego County, Michigan, told me in 1904 that four years before he had seen along Black River a flock of wild pigeons, a dozen or more birds. He said there is no mistake about it, because he was familiar with the wild pigeon early in life. These alighted in a tree near him. He said that in 1902, also, he heard the call of two wild pigeons, although he hunted for the birds and did not find them.

I believe that six wild pigeons were actually seen in

* I believe that this informant was mistaken—W. B. M.



COMPARATIVE SIZE OF PIGEON AND DOVE

From photo furnished by Prof W. B. Burrows, of the Michigan Agricultural College



the latter part of April of 1905 near Vanderbilt, Mich., by this George King. I have tested his honesty and truthfulness time and time again. He told me he was seated in the branches of an apple tree when he saw six wild pigeons alight in another tree near him. He kept perfectly still and watched their movements for about thirty minutes. They flew from the old tree in which they had alighted, underneath a beech tree and began feeding on beech nuts from the ground. He says he heard them call and they made the same old crowing call of the wild pigeon. He was close to them; he is perfectly familiar with the dove and knows that these six were Passenger Pigeons. King has for many years lived in the section that formerly was the great pigeon nesting and feeding ground of northern Michigan.

MICHIGAN AGRICULTURAL COLLEGE,

July 14, '05.

DEAR SIR:—I have been away for the past three weeks and find your letter of June 27 here on my return. The photographs sent you were those of the Passenger Pigeon and the Carolina dove, the one of the two birds being intended to show relative size and appearance. It was taken from two of the best specimens in the museum, placed at exactly the same distance from the camera so that the picture shows the comparative size exactly. The birds being so similar in general appearance, the smaller one looks as if it were further away

than the larger, and this, I think, shows clearly how impossible it is for the ordinary observer to discriminate between these two species when seen separately in the field. Of course a mixed flock would be a different proposition, but so far as I know the two species never mingle, and, at least in this State, it is an unusual thing to find the Carolina dove in large compact flocks such as are characteristic of the Passenger Pigeon. In several cases, however, during August and September I have seen large scattered flocks of the Carolina dove which were feeding on weed seeds and grain in open fields, and which when disturbed, gathered into small bands of twenty to fifty each and flew and perched very much like Passenger Pigeons. In one case I saw at least five hundred Carolina doves acting this way, and had hard work to convince a sportsman friend of mine that they were not Passenger Pigeons. Finally, after getting directly under a small tree on which a dozen or more were perched, he was able to see that characteristic black dot on the side of the neck, and was also able to estimate more correctly the actual size of the birds.

Yours very truly,

WALTER B. BURROWS,

Professor of Zoology.

AGRICULTURAL COLLEGE,
INGHAM Co., MICH., June 17, 1905.

MR. W. B. MERSHON, Saginaw, Mich.

DEAR SIR:—Yours of the 16th is at hand and in reply I would say that the Carolina dove is *rarely* found north of the Au Sable River, and I should not expect *ever* to see it there in flocks in the spring; on the other hand it is just as likely to be found *early* in the season as the Passenger Pigeon, since the Carolina dove winters regularly in southern Michigan and is one of the first birds to appear in the spring in this county, in fact not infrequently staying *here* through the winter. On the whole, however, I think there can be little doubt that Mr. King's report relates to the Passenger Pigeon and not to the dove. I have had some photographs taken of the Carolina dove and Passenger Pigeon together, and will ask my assistant, Mr. Myers, to mail you prints of these within a few days as soon as he has time to make some good ones. If these do not show what you desire we will try again.

Yours very truly,

WALTER B. BURROWS,
Professor of Zoology.

Mr. George E. Atkinson, to whom I am indebted for much valuable data in this book, writes from Portage La Prairie, Manitoba, July 21, 1905, as follows:

I was on a holiday trip on the Assiniboia River last week, and a pair of birds flew by me at a few yards' distance, flashing the pigeon color to all appearances in the sun and alighting on the bank. I turned my boat and until after I shot the bird, I would have sworn it was a pigeon, but it proved to be a large, bright plumaged dove. Atmospheric conditions considerably affected the size so that I am convinced that it is possible for even the best of us to be deceived, and a scientific record must not be formed on any supposition.

IRON MOUNTAIN, MICH.,

May 30, 1904.

MR. W. B. MERSHON, Saginaw, Mich.

DEAR SIR:—In reply to your letter of inquiry respecting the Passenger Pigeon, I will say that my knowledge of it is very limited except from hearsay, but I am credibly informed that it nested at the east end of Deerskin Lake, Sec. 30, N44 W31, as late as 1888. Mr. Armstrong, a timber cruiser, late a resident of this city, gave me this information. He said there was a small colony of less than a hundred birds then. Fire has since destroyed the timber there and he doubted if they were still there when he told me about them. Mr. A. was a keen observer and thoroughly reliable; had been familiar with the species when abundant in lower Michigan, and I have great confidence in the accuracy of his reports. I used to see them as late as 1883 in this

vicinity. They were shot in the summer of 1883 during the blueberry season. I should estimate that as many as fifty birds were taken that summer. I cannot imagine why they should have disappeared from this region. I have no reports concerning the birds from the north shore.

In 1897 a young bird was taken in the neighboring town of Norway with a broken wing and identified by hunters who had known the species in the day of its abundance.

Dr. J. D. Cameron of this city informs me that he saw a flock of about fifty birds flying over the St. George Hospital of this place on the 28th of October, 1900. He was positive that he was not mistaken, as the birds were flying low, and he had formerly been well acquainted with the species in Canada. You can take this latter for what it is worth. Dr. C's. veracity is beyond question, but whether he could have mistaken some other birds for the pigeons I am not prepared to say. He is not interested in ornithology and I would not expect him to recognize ordinary birds, but he may have hunted the wild pigeon in his younger days and so be familiar with its manner of flight. I cannot imagine any other birds that he could mistake for them.

I have an idea that I may have seen one myself in the summer of 1900, but am not sufficiently well acquainted with it to recognize it at sight. I fired at it with a .22

rifle, and the peculiar maneuvers which it executed in the air as the bullet passed, attracted my attention. I was afterward told that the wild pigeon tumbled in the air that way when fired at. I thought at first that it was hit.

Yours truly,

E. E. BREWSTER.

CHAPTER XIII

What Became of the Wild Pigeon ?

By Sullivan Cook, from "Forest and Stream," March 14, 1903.*

WHEN a boy and living in northern Ohio, I often had to go with a gun and drive the pigeons from the newly sown fields of wheat. At that time wheat was sown broadcast, and pigeons would come by the thousands and pick up the wheat before it could be covered with the drag. My father would say, "Get the gun and shoot at every pigeon you see," and often I would see them coming from the woods and alighting on the newly sowed field. They would alight until the ground was fairly blue with these beautiful birds.

I would secrete myself in a fence corner, and as these birds would alight on the ground they would form themselves in a long row, canvassing the field for grain, and as the rear birds raised up and flew over those in front, they reminded one of the little breakers on the ocean beach, and as they came along in this form, they resembled a windrow of hay rolling across the field.

*I think that anyone who reads this article will be, like myself, satisfied that the destruction of the pigeons was wrought to gratify the avarice and love of gain of a few men who slaughtered them until they were virtually exterminated.—W. B. M.

I would wait until the end of this wave was opposite my hiding place and then arise and fire into this windrow of living, animated beauty, and I have picked up as many as twenty-seven dead birds killed at a single shot with an old flintlock smooth bore. Later in the fall these birds would come in countless millions to feed on the wild mast of beech nuts and acorns, and every evening they would pass over our home, going west of our place to what was known as Lodi Swamp.

Many and many a time have I seen clouds of birds that extended as far as the eye could reach, and the sound of their wings was like the roar of a tempest. And for those who are not acquainted with the habits and flight of these birds, I wish to say that once in the month of November, while these pigeons were going from their feeding grounds to this roost in the Lodi Swamp, they were met with a storm of sleet and snow. The wind blew so hard that they could not breast it and were compelled to alight in a sugar orchard near our place. This orchard consisted of twenty acres, where the timber had all been cut out, except the maples, and when they commenced alighting, the trees already partially loaded with snow and ice, and the vast flock of pigeons being attracted by those alighting, all sought the same resting place.

Such vast numbers alighted that in a short time the branches of the trees were broken and as fast as one tree gave way those birds would alight on the already

loaded tree adjoining, and, that, too, was stripped of its long and limber branches. Suffice it to say that in a half hour's time this beautiful sugar orchard was entirely ruined by the loads of birds which had attempted to rest from the storm.

About this time I enjoyed my first pigeon hunt in a roost. Being a boy about sixteen years of age, having a brother about thirteen, and as we had seen the pigeons going by to their roost for hours and knowing that many people went there every night to shoot pigeons on the roost, my brother and I were seized with a desire to go and enjoy this exciting sport. Then arose the difficulty of a gun suitable for the occasion. As we had nothing but a small-bore rifle and not owning a shotgun, we appealed to father as to what we should do for a gun. We had previously gained his consent to our going. He suggested that we take the old horse pistol; one of the Revolutionary time, which had been kept in the family as a reminder of troublesome years.

Let the young man of to-day, who hunts with the improved breechloader, think of two boys starting pigeon hunting, their only outfit consisting of a horse pistol, barrel twelve inches long, caliber 12-gauge, flintlock, one pound of No. 4 shot, a quarter of a pound of powder, a pocket full of old newspaper for wadding, a two-bushel bag to carry game in, and a tin lantern. Thus equipped, we started for the pigeon roost a little after dark. Although three miles from the roost when

we started from home, we could hear the sullen roar of that myriad of birds, and the sound increased in volume as we approached the roost, till it became as the roar of the breakers upon the beach.

As we approached the swamp where the birds roosted, a few scattered birds were frightened from the roost along the edge of the swamp. These scattering birds we could not shoot, but kept advancing further into the swamp. As we approached this vast body of birds, which bent the alders flat to the ground, we could see every now and then ahead of us a small pyramid which looked like a haystack in the darkness, and as we approached what appeared to be this haystack, the frightened birds would fly from the bended alders, and we would find ourselves standing in the midst of a diminutive forest of small trees of alders and willows.

We now found these apparent haystacks were only small elms or willows completely loaded down with live birds. My brother suggested that I shoot at the next "haystack." So we advanced along very carefully among the now upright alders till we came to where it was a perfect roar of voices and wings, and just ahead of us we saw one of those mysterious objects which so resembled a haystack.

My brother suggested that I aim at the center of it and let the old horse pistol go. I instantly obeyed his suggestion, pointing as best I could in the dim light at the center of that form, and pulled. There was a flash

and a roar, and the very atmosphere seemed to be alive with flying, chattering birds. The old tin lantern was lighted. The horse pistol was hunted for, as it had recoiled with such force I had lost hold of it. The gun being found, we then approached as nearly as we could the place where I had shot at the stack. From this discharge we picked up eighteen pigeons and saw some hobbling away into thick brush, from which we could not recover them. After an hour of this kind of hunting our bag was full of pigeons, and our tallow candle in the lantern nearly consumed. We retraced our steps out of the swamp, and about 11 o'clock at night arrived home well satisfied with the night's hunt in the pigeon roost. We had had acres of enjoyment and had brought home bushels of pigeons.

This is only to give an idea of what pigeons were in northern Ohio in the days of my boyhood. This was in the years of 1844 to 1846. In 1854, having grown to man's estate, I moved to Michigan and settled in Cass County, where I built a log house and began clearing up a farm. After having cleared three or four fields around my house, one morning one of my girls came running in from out of doors and said: "Pa, come out and see the pigeons."

I went to the door and saw scooting across my fields, as it seemed skimming the surface of the earth, flock after flock of the birds, one coming close upon the heels of another. I hastened into the house and grasped my

double barreled shotgun, powder flask and shot pouch ; my little girl, then a miss of twelve summers, following me. I took a stand on a slight rise in the middle of a five-acre field and commenced shooting, you might say, at wads of pigeons, so closely huddled were they as they went by. Letting the birds get opposite me and firing across the flock, I was enabled to kill from three to fifteen pigeons at a shot. And my girl was wildly excited, picking up the dead birds and catching the winged ones and bringing them to me.

You never saw two mortals more busy than we were for a half hour. At this time my wife called for breakfast, as we were near the house, and I found my stock of ammunition nearly exhausted. We went into the house for our breakfast and when we came out the birds were flying as thickly as ever. She says, let us count the pigeons and see how many we have. We found we had killed and picked up in this short time twenty-three dozen. My wife said I had better take them to Three Rivers, which was our nearest town, and sell them. And as my ammunition was about exhausted, I hitched up my team, took twenty dozen of the birds and drove ten miles to the station, sold my birds for sixty-five cents a dozen and returned home well satisfied with my day's work, and having on hand a good supply of ammunition for the next morning's flight.

Now I wish to pass along, the lapse of time being about sixteen years. During this time I had removed

from Cass County to Van Buren County, where I had located in the beautiful village of Hartford. In the year 1869 or 1870, the pigeoners, a class of men who lived in Hartford, made a business of netting pigeons, and they are living here yet, and not one of them feels any pride in the part he took in the destruction of these beautiful birds. In March, 1869, word was received that a large flight of pigeons were coming north through the State of Indiana. These men, who had followed the pigeons for years, said, "As we have snow on the ground they will be sure to nest near here, and as we have had a big crop of beech nuts and acorns last fall they will be sure to stop to get the benefit of this mast." A queer thing about the pigeon was that he always built his nest on the borders of the snow, that is, where the ground underneath was covered with snow.

Sure enough, as predicted, in two days after receiving notice of the flight of the birds from Indiana, myriads of pigeons were passing north along the east shore of Lake Michigan, and soon scattering flocks were seen going south towards the bare ground. In a few days word was received that pigeons had gone to nesting in what was then called Deerfield Township, a vast body of hardwood and hemlock timber. Then it was that the pigeon killers, with their nets, stool birds and flyers commenced making preparations for the slaughter of the beautiful birds when they began laying

their eggs. This takes place only three or four days after they commence nesting, as a pigeon's nest is the simplest nest ever built by a bird seen in a tree. It consists of a few little twigs laid crosswise, without moss or lining of any kind, and the lay of eggs is but one. As soon as one egg is laid, they commence sitting, and the male pigeon is quite a gentleman in his way, taking his turn and sitting one-half of the time.

In about twelve or fourteen days—some claim twenty—the young pigeon is hatched. As soon as hatched the male and female birds commence feeding on what is known as marsh feed, that is, on low, springy ground. And from this feed is supplied to both the male and female bird what is known as pigeon's milk, forming inside of the crop a sort of curd, on which the young pigeon is fed by both father and mother, who supply this food. The young bird is gorged with this food, and in a few days becomes as heavy as the parent bird. Another singular thing about the wild pigeon is that as the snow melts and the ground is left bare where the nesting is, the old birds never eat the nuts in the nesting, but leave them for the benefit of the young one, and so when he comes off the nest he always finds an abundance of food at his very door, as it were. As soon as the young birds are able to leave the nest and begin feeding on the ground in the nesting, the old birds immediately forsake them, move again on to the borders of the snow and start another

nesting. In five or ten days the young birds will follow in the direction of the old birds.

When the young birds first come off the nest and commence feeding on the ground, they are fat as balls of butter, but in ten days from this time, when they start on their northern flight to follow their mother bird, they are poor as snakes, and almost unfit to eat, while, when they first leave the nest they are the most palatable morsel man ever tasted. However, in about forty days from the time they began nesting to the time they took their northern flight, there were shipped from Hartford and vicinity, three carloads a day of these beautiful meteors of the sky. Each car containing 150 barrels with 35 dozen in a barrel, making the daily shipment 24,750 dozen.

Young men who are now hunting for something to shoot and wondering what has become of our game, must hear with anger and regret such reports as this from western Michigan in the days gone by: "In three years' time there were caught and shipped to New York and other eastern cities 990,000 dozen pigeons, and in the two succeeding years it was estimated by the same men who caught the pigeons at Hartford that there were one-third more shipped from Shelby than from Hartford; and from Petoskey, Emmett County, two years later, it is now claimed by C. H. Engle, a resident of this town, who was a participant in this ungodly slaughter, that there were shipped five carloads a day

for thirty days, with an average of 8,250 dozen to the carload. Now, when one asks you what has become of the wild pigeons, refer them to C. H. Engle, Stephen Stowe, Chas. Sherburne, and Hiram Corwin, and a man by the name of Miles from Wisconsin, Mr. Miles having caught 500 dozen in a single day. And when you are asked what has become of the wild pigeons, figure up the shipping bills, and they will show what has become of this, the grandest game bird that ever cleft the air of any continent.

My young friends, I want to humbly ask your forgiveness for having taken a small part in the destruction of this, the most exciting of sport. And there is not one of us but is ashamed of the slaughter which has robbed you of enjoyment. If we had been restrained by laws of humanity, you, too, could have enjoyed this sport for years to come.

CHAPTER XIV

A Novel Theory of Extinction

By C. H. Ames and Robert Ridgway

BOSTON, March 8, 1906.

MR. W. B. MERSHON:

DEAR SIR:—Thank you for your note of the third in reply to mine of the first, in regard to your book on the Passenger Pigeon. I note that you say:

“There is room to make additions if you think you have something that would be interesting, and would like to submit it to me for my consideration.”

Thanking you for your courtesy in the matter, I beg to say that I have long had great interest in the problem of the so sudden and complete destruction of this great species, and have from the first been quite unable to believe that the ordinarily assigned agencies for the destruction of the pigeon were adequate, or anywhere near adequate, to make a destruction so sudden and complete.

Several accounts which have come to my notice have strengthened my view. I know well that the attack of man and beast upon the pigeons in their rookeries, or breeding places, was fierce, persistent and enormously

destructive, and that at these breeding places the destroyers gathered in great numbers, but, with my vivid recollection of the tremendous flights of pigeons which I myself saw in the '60's in northern Illinois, the wide distribution of the bird, and what I know of its migratory habits (I wish I knew very much more about these habits), I cannot think that in so few years the practical destruction of the species could be effected by the means referred to.

Years ago—I cannot tell how many, but I am confident it must have been at about the time of the disappearance of the great pigeon flights—I read an account, either in or quoted from a New Orleans newspaper, giving the stories of several ship captains and sailors who had arrived in New Orleans from the Gulf of Mexico. They stated that they had, in crossing the Gulf, sailed over leagues and leagues of water covered, and covered thickly, with dead pigeons. The supposition was that an enormous flight of the pigeons crossing the waters of the Gulf had been overwhelmed by a cyclone, or some such atmospheric disturbance, and that the birds had been whirled into the surf and drowned.

I have been told by competent ornithologists connected with the Boston Society of Natural History that Pigeon Cove, a well-known and much frequented extremity of Cape Ann, near Gloucester, Mass., received its name from the fact that a large flight of pigeons was similarly overwhelmed in flying along the Atlantic near

that place, and that their bodies covered the shore in "windrows."

Not more than two years ago, if so long, I read a lengthy and signed account in a Montreal paper of a similar catastrophe to a great flight of pigeons in attempting to cross Lake Michigan, and similar statement was made that for miles the beach above Milwaukee was heaped and piled with "windrows" of dead pigeons.

Within two or three years several accounts have reached us, bearing every mark of believability, that considerable flights of geese, swans and ducks have been drowned in the surf off the New Jersey and Maryland shores. These flights of birds have been overwhelmed in a sudden storm or gale of wind, which beat them down into the surf where they were drowned, their bodies drifting about, and some of them being thrown up on the shore.

These accounts have come from fishermen, sportsmen and others, and I see no reason whatever to doubt that a flight of birds of any species known could easily be destroyed if caught off shore in some of the wind storms of which we have so many instances. I have frequently in *Forest and Stream* propounded my theory and asked for information about it before it became too late. The whole theory stands or falls, as it seems to me, with the ascertainment of the southern limit of the migration of the great pigeon flight. If the birds did not cross the Gulf of Mexico there is far

less likelihood of my theory being the correct one, though my inquiries in *Forest and Stream* elicited one very circumstantial account of an enormous destruction of pigeons on the Gulf Coast, the birds being blown into the Gulf and destroyed by a fierce "norther" which beat down the coast for two or three days. Persons familiar with this phenomena of the Texas "norther" need no help to their imaginations in seeing how a pigeon flight, being caught on the shores of the Gulf by such a wind could be practically destroyed.

I do not know that you will think my theory worth any consideration, but I have finally interested a number of ornithologists who share my view that the final and sudden wiping out of the great bulk of the pigeon flight must have been by some cataclysmic agency. It seems to me that the question is one of great interest from the point of view of the naturalist and biologist, and well worth serious investigation by all who care for these things. I shall be pleased to know if what I have said seems to you of interest and to have any weight.

Wishing you all success in your admirable undertaking, and anticipating with great pleasure the results of your studies in your proposed book, I am,

Yours very truly,

C. H. AMES.

Memorandum prepared by Mr. Robert Ridgway, Curator of the Division of Birds, U. S. National Museum, to accompany letter to Mr. W. B. Mershon, Saginaw, Mich.

If Mr. Mershon will communicate on the subject of Passenger Pigeons with Mr. William Brewster,* 145 Brattle Street, Cambridge, Mass., he may get some data which will (or ought to) dismiss from consideration the idea that the passenger pigeon could have been exterminated in the manner suggested by Mr. Ames. During a visit to northern Michigan, Mr. Brewster talked with a great many pigeon netters. I have forgotten the figures, and may be very inexact in my recollection of them, but my recollection is that at one "roost" there were one hundred netters who averaged one thousand (it may have been ten thousand) pigeons per day. When it is considered that this was the rate of destruction at one locality in one State only, that the same was going on in other States, and that tens of thousands were being killed by hunters and others, and this year after year, I cannot see anything surprising in the eventual extermination of the species, no matter how numerous represented originally.

Nothing in the history of the Passenger Pigeon is more certainly known than the fact that its range to the southward *did not extend beyond the United States.*

* See Chapter VII, "Netting the Pigeon" by Wm. Brewster.

There is a single Cuban record, but the occurrence was purely accidental. The migrations of the Passenger Pigeon were wholly different in their character from those of true emigrants, that is to say, they were influenced or controlled purely by the matter of food supply, as in the case of the robin and some other birds, and the flights were as often from west to east and *vice versa* as from south to north or north to south; in short, the flocks moved about in various directions in their search for food or nesting places. For myself, I do not believe in the story of drowning in the Gulf of Mexico for two reasons. In the first place the birds are extremely unlikely to have been there, a hurricane from the *northward* being absolutely necessary to explain their presence in that quarter, and, in the second place, no such explanation is needed in view of what is known to be the facts concerning their wholesale destruction by human agency alone.

The range of the Passenger Pigeon was limited to the mixed hardwood forest region of the eastern United States and Canada, and any that occurred beyond were stragglers, pure and simple. Consequently it was not found, except as stragglers, in the long-leaf pine belt of the Gulf Coast, but only on the uplands from northern or middle Alabama, Mississippi, and Louisiana, northward.

CHAPTER XV

News from John Burroughs

WHEN the following report from so high an authority as John Burroughs appeared in *Forest and Stream* it seemed too important to be overlooked. I therefore ventured to open a correspondence with this famous naturalist, even suggesting that his informants might have mistaken some other species of migratory bird for a flight of wild pigeons. I had once made a similar mistake in Texas when the northern migration of the curlews was in full flight. Countless flocks of them were streaming past at a considerable distance from me, and I could have sworn they were wild pigeons until I was lucky enough to see them at much closer range. Even now the newspapers east and west contain an annual crop of wild pigeon reports, most of which are to be found fake reports upon careful investigation. It has happened often that hunters and woodsmen mistake the wild dove for the pigeon, and refuse to believe otherwise. The correspondence explains itself, however, and is a valuable contribution to the subject in hand.

W. B. M.

A FLOCK OF WILD PIGEONS *

WEST PARK, N. Y., May 11th.

EDITOR *Forest and Stream*:

I have received evidence which is to me entirely convincing that a large flock of Passenger Pigeons was seen to pass over the village of Prattsville, Greene County, this State, late one afternoon about the middle of April. The fact was first reported in the local paper, the Prattsville *News*. An old boyhood schoolmate of mine, Charles W. Benton, was, with others, reported to have seen them. I have corresponded with Mr. Benton and have no doubt the pigeons were seen as stated. Mr. Benton saw pigeons, clouds of them, in his boyhood, and could not well be mistaken. He says it was about 5 o'clock, and that the flock stretched out across the valley about one-half mile and must have contained many hundreds. It came from the southeast, and went northwest. Mr. Benton says that a large flock was reported last year as having passed over the village of Catskill, and that a wild pigeon was shot near Prattsville last fall. A friend of mine saw two pigeons in the woods at West Point a year or so ago.

I have no doubt, therefore, that the wild pigeon is still with us, and that if protected we may yet see them in something like their numbers of thirty years ago.

JOHN BURROUGHS.

*From *Forest and Stream*, May 19, 1906.

WEST PARK, N. Y., May 27, 1906.

TO W. B. MERSHON:

DEAR SIR:—I can give you no more definite information about that flock of pigeons than I reported to *Forest and Stream*. I have no doubt about the fact. If you will write to C. W. Benton, Prattsville, N. Y., he can put you in communication with several people who saw the flock.

I am just about to write to *Forest and Stream* of another very large flock of pigeons that was seen to pass over the city of Kingston, N. Y., on the morning of the 15th. I have written to Judge A. T. Clearwater of that city, who replies that he has talked with many persons who saw the pigeons and who had seen the pigeons years ago. The flock is described as a mile long. I am going up to Kingston soon to question the persons who saw the flock. If I learn anything to discredit the story I will let you know. We never have a flight of any birds here that could be mistaken for pigeons by any one who had ever seen the latter. If these flocks were pigeons, where have they been hiding all these years?

Very sincerely yours,

JOHN BURROUGHS.

PRATTSVILLE, N. Y., June 9, 1906.

W. B. MERSHON, Saginaw, Mich.:

DEAR SIR:—Yours of the 6th inst. is before me and I hasten to reply. Now, in the first place, you speak

of John Burroughs. Mr. Burroughs and I went to school together when we were boys, and, as you say, he is a good authority on natural history, and I have had some communication with him on the pigeon question. I live in the heart of the Catskill Mountains, which was once a great resort for wild pigeons, and I have seen a vast number of them, dating back as far as 1848, when this country was literally covered with them, and for some years after. Now in regard to the wild pigeons I saw this spring. I was going to my home in the village of Prattsville, in company with a man by the name of M. E. Kreiger, one Sunday afternoon, and when near my house we stopped to talk a few minutes, when, on looking up, we saw the flock of pigeons. They were coming from the southeast and went to the northwest. The flock was about one-half mile long and flew in the same manner as pigeons of old. There were thousands of them. Now in regard to ducks, teal and plover, we never see any of them here in the mountains, though once in a while a few ducks, but only in small flocks of seven or eight in a bunch; and there are no birds that gather in flocks here but crows in the fall, but never at any other time. Wild geese fly over here in the fall.

The *Daily Leader*, a daily paper published in Kingston, Ulster County, N. Y., contained an item a few weeks since stating that a flock of wild pigeons passed over the city a short time ago. The flock was about one mile long and contained many thousands. And in

the spring of 1905, the *Catskill Recorder*, a newspaper published in this county, reported seeing a flock similar to the one seen at Kingston.

Wishing you success on your fishing trip, I am,

Yours truly,

C. W. BENTON.

THE SULLIVAN COUNTY PIGEONS

WEST PARK, N. Y., June 30th.

EDITOR *Forest and Stream*:

Since I wrote you a few weeks ago, I have been looking up the men who were reported to have seen wild pigeons recently. I have seen six men who are positive they have seen flocks of wild pigeons—some of them two years ago, and some of them this past spring. As these men were all past middle age and had been familiar with the pigeon thirty and forty years ago and were, moreover, men reported truthful and sober by their neighbors, and who impressed me as being entirely reliable, I feel bound to credit their several statements. At De Bruce, Sullivan County, Mr. Cooper, the postmaster and village blacksmith, said he had seen a large flock of pigeons in the fall two years ago. They were about a buckwheat field. He pointed out the hill about which they were flying. Mr. Cooper had shot and trapped a great many pigeons years ago, and was sure he could not mistake any other bird for a pigeon. A farmer, whose name I do not now remember and

who heard Mr. Cooper's statement, said he saw a large flock last fall about a buckwheat field, in the same town. This man was reported to me as perfectly reliable, and he gave me that impression.

At Port Ewen, I met a Hudson River shad fisherman, Mr. Van Vliet, who said he had seen early one morning in April or May, two years ago, a flock of wild pigeons over the Hudson. He estimated the flock as containing seventy or eighty birds. Mr. Van Vliet is a man nearly seventy years old, and one cannot look into his face and have him speak and doubt for a moment the truth of what he is saying. When I asked him if he knew the wild pigeon, he smiled good-humoredly and said he knew them as well as he knew anything; he had lived in the time of pigeons, and had killed hundreds of them.

Another man, one of the leading grocery men of Port Ewen, said he had seen a very large flock of pigeons between 4 and 5 o'clock on May 15 last, flying over as he was on his way to open his store. His hired man, who was with him, also saw them. Mr. Van Leuven had also seen pigeons in his youth and described to me accurately their manner of flight and the form of the flock against the sky. A neighbor of his told me he had seen a flock of fifteen or twenty pigeons on a foggy morning only a few days before. The rush of their wings overhead first attracted his attention to them. But he had never seen wild pigeons, and might have

been deceived, though he was sure they were pigeons by their speed and general look.

None of these men could have had any motive in trying to deceive me, and I feel bound to credit their stories. Their statements, taken in connection with the statement of my old schoolfellow at Prattsville, N. Y., of whom I wrote you, makes me believe that there is a large flock of wild pigeons that still at times frequents this part of the State, and perhaps breeds somewhere in the wilds of Sullivan or Ulster County. But they ought to be heard from elsewhere—from the south or southwest in winter.

JOHN BURROUGHS.

P. S.—Just as I finished the above, I came upon the following in the Poughkeepsie *Sunday Courier*:

“We noticed recently an item asking whether wild pigeons are returning. Sullivan County people seem to be taking the lead in answering the question, but a Dutchess County farmer named David Rosell, living near Fishkill Plains, who was familiar with the aforesaid birds in old days, reports having seen a flock of about thirty feeding on his buckwheat patch one morning last week, which gives evidence that the birds are not extinct as supposed, but a flock may merely be taking a tour around the world like Magellan of old. Mr. Rosell stated that he had not seen any before in about forty years. At first sight, he could hardly believe his eyes, but he was not long in becoming convinced of their identity.”

CHAPTER XVI

The Pigeon in Manitoba*

By George E. Atkinson

WHILE the biological history of any country records the decrease and disappearance of many forms of life due to just or unjust circumstances, it remains for the historical records of North America to reveal a career of human selfishness which may be considered the paragon. Within four centuries of North American civilization (or modified barbarism) we can be credited with the wiping into the past of at least three species of animal life originally so phenomenally abundant and so strikingly characteristic in themselves as to evoke the wonder and amazement of the entire world. And, sad to relate, so effectual has been the extermination, that it is doubtful if our descendants a few generations hence will be able to learn anything whatever about them save through the medium of books. While herein again we shall be just subjects of their censure for having manifestly failed

* This paper was read at a meeting of the Manitoba Historical and Scientific Society at Winnipeg in 1905, by the author, a naturalist, residing at Portage la Prairie.

to preserve in history's archives any material amount of specific information.

The early settlers landing upon the Atlantic coast between Newfoundland and the Carolinas found them in possession of armies of great auks, and the few scraps of authenticated history which we now possess disclose a most iniquitous course of wanton slaughter and destruction which ended in the complete extinction of the bird over sixty years ago. Yet in the face of this destruction there remain but four mounted specimens and two eggs in the collections of North America to-day, while but seventy skins remain in the collections of the entire world.

If possible, more ruthless and inhuman was the carnage waged against the noble buffalo, the countless thousands of which roaming over virgin prairies excited the wonder and amazement of the entire sporting and scientific world, and which, to-day, are represented only in the zoölogical parks, where all individuality will eventually be lost in domestication.

Coincident almost with the passing of the buffalo we have to record the decline and fall of the Passenger Pigeon, a bird which aroused the excitement and wonder of the entire world during the first half of the last century because of its phenomenal numbers; a bird also which stood out unique in character and individuality among the 300 described pigeons of the world and which won the admiration of every ornithologist who

was fortunate enough to have experience with it living or dead. Yet it was not exempt from the oppression of its human foe, who has been instrumental, through interference with the breeding and feeding grounds and through a continued persecution and ruthless slaughter for the market, in reducing the species almost beyond the hope of salvation.

The Passenger Pigeon, the species under observation, was first described under the genus *Columba*, or type pigeons, but subsequently Swainson separated it from these and placed it under the genus *Ectopistes* because of the greater length of wing and tail.

Generically named *Ectopistes*, meaning moving about or wandering, and specifically named *Migratoria*, meaning migratory, we have a technical name implying not only a species of migrating annually to and from their breeding ground, but one given to moving about from season to season, selecting the most congenial environment for both breeding and feeding.

. . . With all the knowledge we have possessed of the unestimable multitudes which existed during the early part of the last century, and with their decline, begun and noted generally in the later sixties and early seventies, we still find that no steps whatever were taken to prevent their possible depletion, and few records of any value are made of the continuance or speed of this decrease; and not until the last decade of the century do we awake to the fact that the pigeons are gone be-

yond the possibility of a return in any numbers. When a few years later reports are made that pigeons still exist and are again increasing, scientific investigation shows that the mourning dove has been mistaken for the pigeon or that the band-tailed pigeon of California is taken for the old Passenger Pigeon, and so we have continued since the early nineties investigating rumors of their appearance from all over America, north and south, and the West India Islands, but all reports point us to the past for the pigeon and some other species under suspicion. . . . I doubt very much if the historian desirous of compiling any historical work would find himself confronted with such a decided blank in historical records during an important period as that confronted in the compilation of a historical record of the Passenger Pigeon within any district which it formerly frequented during the period from about 1870, when the decline was first noticed, to 1890, when the birds had practically passed away. . . .

In this matter, Mr. J. H. Fleming of Toronto, in writing me, says: "The pigeons seem to have gone off like dynamite. Nobody expected it and nobody prepared a series of skins"; and to this I can add that no one seems to have made any series of records of the birds from year to year. Since their disappearance, however, things have changed: everybody is alert for pigeons, and everybody has a theory; but beyond offering subject of social conversation, or awakening a re-

cital of old pigeon experiences from the old timers, these rumors and theories seem to return to the winds from whence they came.

The latest theory advanced to me by a correspondent is the possibility of some disturbance of the elements in the shape of a cyclone, or a storm striking a migrating host in crossing the Gulf of Mexico and destroying them almost completely. This is a plausible theory, but I am unable to conceive how such immense hosts of pigeons as are recorded up to 1865 could possibly have met with sudden disaster in this manner, even in the center of the Gulf, without leaving some wreckage to tell the story, and such is not recorded. While again I do not think that the entire host would cross the Gulf, but that a large portion of the migrating birds would take an overland route through Mexico and Central America to the southern boundary of their flight. Personally I am inclined to cherish my original contentions that the continued disturbance of the breeding and feeding grounds, both by the slaughter of the birds for market and by the dissipating of the original immense colonies by the clearing of the hardwood and pine forests of the United States and eastern Canada, compelling these sections of the main column to travel farther in search of congenial environment, curtailing the breeding season, and, I have no doubt, frequently preventing many from breeding for several seasons.

While the persistent persecution and destruction for

the market was in no way proportionately lessened in the vicinity of these smaller colonies as long as a sufficient number of the birds remained to make the traffic profitable, it can at once be seen that this continued drain upon these smaller colonies, when other conditions were becoming more difficult for the birds to contend with, would be instrumental in depleting the entire former main column to a point when netting and shooting were no longer profitable; and, the remnant of these colonies having to run a gantlet of persecution over their entire course of migration to and from winter quarters, there could be but one result to such proceeding, and that one we now face; extermination.

Of these records made during the pigeons' day, as we might call it, the earliest we have are those made by a Mr. T. Hutchins, who was a Hudson's Bay Company trader, operating for some twenty-five years in the district adjacent to Hudson's Bay, during which time he made copious notes of the birds frequenting that district, which were afterwards published by Pennant in his "Arctic Zoölogy" in 1875. He says in part:

"The first pigeon I shall take note of is one I received at Severn in 1771; and, having sent it home to Mr. Pennant, he informed me that it was the *migratoria* species. They are very numerous inland and visit our settlement in the summer. They are plentiful about Moose Factory and inland, where they breed, choosing

an arboreal situation. The gentlemen number them among the many delicacies the Hudson's Bay affords our tables. It is a hardy bird, continuing with us until December. In summer their food is berries, but after these are covered with snow, they feed upon the juniper buds. They lay two eggs and are gregarious. About 1756 these birds migrated as far north as York Factory, but remained only two days."

In a report issued in 1795, Samuel Hearne also reports the birds being abundant inland from the southern portion of Hudson's Bay, but states that, though good eating, they were seldom fat.

The first provincial record is that made by Sir John Richardson in 1827, in which he says: "A few hordes of Indians who frequent the low floods districts at the south end of Lake Winnipeg subsist principally on the pigeons during the period when the sturgeon fishing is unproductive and the wild rice is still unripened, but farther north the birds are too few in numbers to furnish material diet."

I presume that he means farther up the Lake Winnipeg shores, since Hutchins and Hearne both reported them common nearer Hudson's Bay.

The early records of the birds in eastern Canada in later years corroborate the earlier statements of Wilson and Audubon in almost every particular; and one acquainted with the timbered conditions of the country to the immediate west of the Red River Valley and

north of the American boundary line can readily appreciate the utter inadequacy of an acceptable food supply for these countless millions of pigeons; and we can also readily understand how very soon the breaking up of the original hardwood forests of eastern Canada would tend to decrease the visible food supply and cause these hungry millions to seek new pastures.

The breaking of these feeding grounds would first be instrumental in scattering or breaking up the largest flocks, and even the very long distances the bird was able to fly from breeding to feeding ground would be exceeded, necessitating next the nesting in smaller colonies, where careless nesting habits with continued changing conditions would tend to continue to decline their numbers, while the tenacity with which even the smaller roosts were clung to by man, like leeches to a frog, and the hapless victim shot, netted and stolen from the nest before maturity, was but another effectual and not the least responsible agent in the relegation of the pigeon to that past from which none return.

When I decided to attempt the preparation of a review history of the pigeon in Manitoba, I felt that, having had practically no experience with the bird myself, I should have to depend upon the reports of representative pioneers of the country for my facts as to the numbers of the birds formerly found here, and the period of their decline and disappearance. I accordingly drafted a series of questions which I submitted to

these gentlemen, and I have to tender them all my sincere thanks, as well as that of the scientific world, for the ready responses and the conciseness of the information received.

One of the earliest residents of Portage la Prairie, Mr. George A. Garrioch, informs me:

"I was born in Manitoba and came to Portage la Prairie about 1853. I was then only about six years old, and as far back as I can remember pigeons were very numerous.

"They passed over every spring, usually during the mornings, in very large flocks, following each other in rapid succession.

"I do not think they bred in any numbers in the province, as I only remember seeing one nest; this contained two eggs.

"The birds, to my recollection, were most numerous in the fifties, and the decline was noticed in the later sixties and continued until the early eighties, when they disappeared. I have observed none since until last year, when I am positive I saw a single male bird south of the town of Portage la Prairie."

Mr. Angus Sutherland of Winnipeg, in reply to my interrogation, states:

"I was born in the present city of Winnipeg and have lived here over fifty years. The wild pigeons were very numerous in my boyhood. They frequented the mixed woods about the city, and while undoubtedly many birds

bred here, I remember no extensive breeding colonies in the province, and believe the great majority passed farther north to breed. About 1870 the decrease in their numbers was most pronouncedly manifest, this decline continuing until the early eighties, when they had apparently all disappeared, and I have seen only occasional birds since, and none of late years."

Mr. W. J. McLean, formerly of the Hudson's Bay Company and at present a resident of Winnipeg, sends me some valuable information, which supports my contention regarding the influence of food supply. He writes:

"I came to the Red River Settlement in 1860 and found the pigeons very plentiful on my arrival. The birds came in many thousands, and great numbers of them bred in the northeastern portion of the province through the district north of the Lake of the Woods and Rainy Lake, where the cranberry and blueberry are abundant. These fruits constitute their chief food supply, as they remain on the bushes and retain much of their food properties until well on into the summer following their growth. They also feed largely on acorns wherever they abound. The decline began about the early seventies, and 1877 was the first year in which I encountered large flocks of them passing northwesterly from White Sand River near Fort Pelly. This was on a dull, drizzling day about the middle of May, and I presume they were then heading towards the Barren

Grounds district, where the blueberry and the cranberry are very abundant.”

Mr. E. H. G. G. Hay, formerly police magistrate of Portage la Prairie, now of St. Andrews, reports:

“I came to the country in June, 1861, and found that the pigeons were abundant previous to my arrival. To give you an idea of their numbers, a Mr. Thompson of St. Andrews some mornings caught with a net about ten feet square as many as eighty dozen, and in the spring of 1864 I fired into a flock as they rose from the ground and picked up seventeen birds.

“The birds were mostly migratory in what is now known as Manitoba, and most of them went farther north after the seeding season. I never heard of any extensive rookeries such as those observed in the east and south. The few that bred here frequented mixed poplar and spruce. They seemed most numerous in the sixties and began to show signs of decreasing about 1869 or 1870, and by 1875 they had all disappeared and I have only seen an occasional bird since.”

Mr. William Clark of the Hudson's Bay Company, Winnipeg, informs me:

“The first place I remember having seen pigeons in Manitoba was at White Horse Plains (St. François Xavier) in 1865, where they were very numerous, breeding in the oak trees in that district. Two years after this I went to Oak Point on Lake Manitoba, but do not remember the birds there then nor since.”

Mr. Charles A. Boulton of Macgregor, Man., replies as follows:

"I have resided in Manitoba since 1872, and have taken pigeons as far north as Fort Pelly in the fall of 1874, but know nothing of them previously. In our district they usually made their appearance in the fall and fed upon the grain. They continued fairly numerous until about 1882, at which time we had to drive them from the grain stocks, but they then disappeared and only stragglers have been noted since."

There is no doubt that many other reports could have been secured, but, as all seem to tend toward the one conclusion, I shall save time and space by summarizing the information at hand.

Some months ago I made a statement in an article, written for local interest, to the effect that Manitoba had never been the home of the wild pigeon. By this I meant that, because of unfavorable breeding and feeding conditions within the province, only the smallest percentage of the enormous flocks recorded for the south and east could possibly exist here. The records here collected support me in this contention so far as that portion of the province west of the Red River is concerned, but the record of Sir John Richardson tends to show that favorable conditions must have existed immediately south of Lake Winnipeg, through what he calls a low-lying district, and where we can assume that the cranberry and blueberry were abundant, as they

were through the district subsequently reported by Mr. McLean to the east and northeast of this district. There is no doubt that the difference in the character of the country east of the Red River from that of the west would present more favorable conditions for the birds, but not in one case has it been shown that the birds nested in colonies approaching the size of the famous eastern and southern roosts. Reports seem rather to show that those which bred within the province were more generally scattered over the country, at the same time being numerous enough to permit the shooter and the netter to make a profitable business of killing the birds.

All evidence seems to show that large numbers passed through the province to and from a northern breeding ground, possibly that recorded by Hutchins near Hudson's Bay and to the westward, and that they were excessively numerous up to about 1870, when they began to decrease. As to the latest authenticated records, I quote from notes in my pamphlet on "Rare Bird Records:"

"The beautiful specimen of the Passenger Pigeon that I have been able to secure for illustration is loaned me by Mr. Dan Smith of Winnipeg, who shot it in St. Boniface, southeast of the cathedral, in the fall of 1893; and, so far as I have been able to discover, it was the last bird found in the vicinity of Winnipeg, while the only specimen in the flesh which I was ever privileged



Photo by C. O. Whitman (University of Chicago)

October 16, 1906.

MR. W. B. MERSHON,

Dear Sir:—I am much chagrined over my carelessness in overlooking your request for a photo of a young Passenger Pigeon. I had best of intentions, but crowded work threw this out of mind. I should have attended to it at first, had it been easy to get at the picture. I have been away all summer and found things misplaced on my return. I fear it is now too late, but send the picture to be used if you are still able to do so. I shall be very much interested to see your book. I still have two female pigeons and two hybrids between a former male pigeon and the common Ring-dove. The hybrids are unfortunately infertile males.

Very truly,

C. O. WHITMAN.

to handle in Manitoba was killed at Winnipegosis on April 10, 1896, and sent me to be mounted."

Since that time I have expended much effort in following up rumors of the bird's presence in various districts with a view of locating a breeding pair. Not only have I sought to secure a bird to mount, but also to get a live pair, or the eggs while fresh, to assist in the preservation of the pigeon in a partially domesticated state, since the only specimens now living in captivity are those owned by Prof. Whitman of the University of Chicago, who, in writing me, says: "My stock seems to have come to a complete standstill, having raised no young for the last four years. The weakness is due to long inbreeding, as my birds are from a single pair captured about twenty-five years ago in Wisconsin. I have long tried to secure new stock, but have been unsuccessful. A single pair would enable me to save them, for they breed well in confinement.

"I have crossed them with ring doves, and still have three hybrids, but as these are infertile there is no hope of even preserving these half-breeds alive. Of all the wild pigeons in the world the Passenger Pigeon is my favorite. No other pigeon combines so many fine qualities in form, color, strength and perfection of wing power."

I am enabled through the kindness of Prof. Whitman to exhibit a photograph of one of his younger birds taken in his aviary at Chicago.

CHAPTER XVII

The Passenger Pigeon in Confinement (*Ectopistes migratorius*)

From "The Auk," July, 1896.

IN the *American Field* of December 5, 1895, I noticed a short note, stating that Mr. David Whittaker of Milwaukee, Wis., had in a spacious inclosure a flock of fifty genuine wild pigeons. Being much interested of late in this bird, I at once wrote to Mr. Whittaker, asking for such information in detail regarding his birds as he could give me, but, owing to absence from the city, he did not reply. Still being anxious to learn something further regarding this interesting subject, I recently wrote to a correspondent in Milwaukee, asking him to investigate the matter. In due time I received his reply, stating that he had seen the pigeons, but that the flock consisted of fifteen instead of fifty birds, and inviting me to join him and spend a few hours of rare pleasure.

On March 1, 1896, I visited Milwaukee, and made a careful inspection of this beautiful flock. I am greatly indebted to Mr. Whittaker, through whose courtesy we saw and heard so much of value and interest, not only in regard to his pet birds, but also about

his large experience with the wild pigeon in its native haunts; for, being a keen observer of nature, and having been a prospector for many years among the timber and mining regions of Wisconsin, Michigan and Canada, his opportunities for observation have been extensive. In the fall of 1888 Mr. Whittaker received from a young Indian two pairs of pigeons, one of adults and the other quite young. They were trapped near Lake Shawano, in Shawano County in northeastern Wisconsin.

Shortly after being confined, one of the old birds scalped itself by flying against the wire netting, and died; the other one escaped. The young pair were, with much care and watching, successfully raised, and from these the flock has increased to its present number, six males and nine females. The inclosure, which is not large, is built behind and adjoining the house, situated on a high bluff overlooking Milwaukee River. It is built of wire netting and inclosed on the top and two sides with glass. There is but slight protection from the cold, and the pigeons thrive in zero weather as well as in summer. A few branches and poles are used for roosting, and two shelves, about one foot wide and partitioned off, though not inclosed, are where the nests are built and the young are raised. It was several years before Mr. Whittaker successfully raised the young, but, by patient experimenting with various kinds of food, he has been rewarded. The destruction of the

nests and egg, at times by the female, more often by others of the flock, and the killing of the young birds; after they leave the nest, by the old males, explains in part the slow increase in the flock.

When the pigeons show signs of nesting, small twigs are thrown onto the bottom of the inclosure; and, on the day of our visit, I was so fortunate as to watch the operations of nest building. There were three pairs actively engaged. The females remained on the shelf, and, at a given signal which they only uttered for this purpose, the males would select a twig or straw, and in one instance a feather, and fly up to the nest, drop it and return to the ground while the females placed the building material in position and then called for more.

In all of Mr. Whittaker's experience with this flock he has never known of more than one egg being deposited. Audubon, in his article on the Passenger Pigeon, says: "A curious change of habits has taken place in England in those pigeons which I presented to the Earl of Kirby in 1830, that nobleman having assured me that, ever since they began breeding in his aviaries, they have laid only one egg." The eggs are usually laid from the middle of February to the middle of September, some females laying as many as seven or eight during the season, though three or four is the average.

The period of incubation is fourteen days, almost to a day, and, if the egg is not hatched in that time, the

birds desert it. As in the wild state, both parents assist in incubation, the females sitting all night, and the males by day. As soon as the young are hatched the parents are fed on earth worms, beetles, grubs, etc., which are placed in a box of earth, from which they greedily feed, afterwards nourishing the young, in the usual way, by disgorging the contents from the crop. At times the earth in the inclosure is moistened with water and a handful of worms thrown in, which soon find their way under the surface. The pigeons are so fond of these tid-bits they will often pick and scratch holes in their search, large enough to almost hide themselves.

When the birds are sitting during cold weather, the egg is tucked up under the feathers, as though to support the egg in its position. At such times the pigeon rests on the side of the folded wing, instead of squatting on the nest. During the first few days, after the young is hatched, to guard against the cold, it is, like the egg, concealed under the feathers of the abdomen, the head always pointing forward. In this attitude, the parents, without changing the sitting position or reclining on the side, feed the squab by arching the head and neck down, and administering the food. The young leave the nest in about fourteen days, and then feed on small seeds, and later, with the old birds, subsist on grains, beech nuts, acorns, etc.

The adults usually commence to molt in September

and are but a few weeks in assuming their new dress, but the young in the first molt are much longer. At the time of my visit the birds were all in perfect plumage. The young in the downy state are a dark slate-color.

The pigeons are always timid, and ever on the alert when being watched, and the observer must approach them cautiously to prevent a commotion. They inherit the instincts of their race in a number of ways. On the approach of a storm the old birds will arrange themselves side by side on the perch, draw the head and neck down into the feathers, and sit motionless for a time, then gradually resume an upright position, spread the tail, stretch each wing in turn, and then, as at a given signal, they spring from the perch and bring up against the wire netting with their feet as though anxious to fly before the disturbing elements. Mr. Whittaker has noticed this same trait while observing pigeons in the woods.

It was with a peculiar sense of pleasure and satisfaction that I witnessed and heard all the facts about this flock, inasmuch as but few of us expect to again have such opportunities with this pigeon in the wild state. It is to be hoped that, if Mr. Whittaker continues to successfully increase these birds, he will dispose of a pair to some zoölogical gardens; for what would be a more valuable and interesting addition than an aviary of this rapidly diminishing species?

LETTERS OF COMMENT FROM CHIEF POKAGON.

HARTFORD, MICH., Dec. 17, 1896.

RUTHVEN DEANE, Chicago, Ill.

DEAR SIR:—Your article on wild pigeons (*O-me-me-oo*) received and just read with much interest. I am now satisfied you are deeply interested in those strange birds, or you would not have gone to Milwaukee to see them. I would like to have Whittaker's full name and address so I can learn the come-out of that little flock. You note his flock stands zero weather. Many times in my life I have known *O-me-me-oo*, while nesting, to be obliged to search for food in from four to six inches of snow, and have seen the snow at such times upturned and intermixed with forest leaves for miles and miles. They would move out of the nesting grounds in vast columns, flying one over the other. I have seen them at such times reminding me of a vast flood of water rolling over a rocky bottom, sending the water in curved lines upwards and falling farther down the stream.

I have seen them many times building nests by the thousand within sight, both male and female assisting in building the nest. I have counted the number of sticks used many times; they number from seventy to one hundred and ten, sometimes so frail I have plainly seen the eggs from the ground.

I visited a nesting north of Kilburn City, Wis., about

twenty-five years ago, and I there counted as high as forty nests in scrub oaks not over twenty-five feet high; in many places I could pick the eggs out of the nests, being not over five or six feet from the ground.

I stopped then with the Win-a-ba-go Indians, and was much interested in seeing them play mog-i-cin. I had heard the fathers explain the game when a boy, but never saw it before. I call it a gambling game. Certain it is, when nesting in a wild state, the male goes out at break of day; returning from eight to eleven he takes the nest; the hen then goes out, returning from one to four, and takes the nest; then the male goes out, returning, according to feed, between that time and night.

After the young leave their nests, I have always noticed that a few, both males and females, stay with them. I have seen as many as a dozen young ones assemble about a male, and, with drooping wings, utter the plaintive begging notes to be fed, and never saw them misused at such times by either gender. Certain it is, while feeding their young they are frantic for salt. I have seen them pile on top of each other, about salt springs, two or more deep. I wonder if your friend gives his birds, while brooding, salt.

HARTFORD, MICH., Dec. 18, 1896.

DEAR SIR:—Yours of December 17th at hand. It is indeed surprising to me that your place of business

is so close to old Fort Dearborn. In writing you yesterday, I overlooked what you said about the Milwaukee man's experience with his birds just hatching. I understand they were young birds. Thirty-two years ago there was a big nesting between South Haven and St. Joseph on Lake Michigan. About one week after the main body commenced nesting, a new body of great size, covering hundreds of acres, came and joined them. I never saw nests built so thick, high and low. I found they were all young birds less than a year old, which could be easily explained from their mottled coloring. To my surprise, soon as nests were built, they commenced tearing them down—a few eggs scattered about told some had laid; within three days they all left, moving in a body up the lake shore north. I have had like facts told me by others who have witnessed the same thing; and therefore conclude that your friend's experience accurately portrays the habits of these birds in their wild state.

UNIVERSITY OF CHICAGO,

May 30, 1904.

DEAR SIR:—I have ten of the wild pigeons; they are from a single pair obtained by Mr. Whittaker of Milwaukee about twenty years ago. Mr. W. bred from this pair until he had a dozen or more. I obtained a few pairs from him, and they bred fairly well for a few years, but lately have failed to accomplish anything.

This season a single egg was obtained. It developed for about a week and then halted. The stock is evidently weakened by inbreeding so long. I can give no information as to time of disappearance. I have sought information far and near. Only a few birds have been reported the last three years. One was reported on pretty reliable grounds from Toronto last summer.

Sorry I can give you no satisfactory details.

Yours truly,

C. O. WHITMAN.

[Under date of June 6, 1905, Prof. Whitman of the University of Chicago wrote to me that his flock had been reduced from ten to four since he last wrote. He says that one pair were then beginning the maneuvers preceding nesting, but he doubted very much if they would accomplish anything.]

CHAPTER XVIII

Nesting Habits of the Passenger Pigeon

By Eugene Pericles (Dr. Morris Gibbs), from "The Oölogist, 1894."

THERE are hundreds and perhaps thousands of the younger readers of *The Oölogist* who have never seen a Passenger Pigeon alive. In fact, there are many who have never seen a skin or stuffed specimen, for the species is so rare now that very few of the younger collectors have had an opportunity of shooting a bird. And of the present generation of oölogists, the ones who have secured a set (one egg) are indeed very few.

Many of the older ornithologists can remember when the birds appeared among us in myriads each season, and were mercilessly and inconsiderately trapped and shot whenever and wherever they appeared. I could fill a book with the accounts of their butcheries, and could easily cause astonishment in my readers by telling of the immense flocks which were seen a quarter of a century ago. But wonderful as these tales would appear, they would be as nothing compared to the stories of the earlier writers on birds in America.

. . . Of course we know that the net and gun

have been the principal means of destruction, but it is almost fair to assert that even with the net and gun under proper restrictions, the pigeon would still be with us in hordes, both spring and autumn. For many years hunters (butchers) used to shoot the birds regularly at their nesting places, while the netters were also found near at hand.

I have seen many birds taken, by unsportsmanlike netters, for the market during spring migrations, and the published accounts of the destruction by netters is almost beyond belief. Doctor Kirtland states that near Circleville, Ohio, in 1850, there were taken in a single net in one day 1,285 live pigeons.

The Passenger Pigeon was in the habit of crossing the Ohio River by March 1 in the spring migrations, and I have noted the birds several times in Michigan in February. But this was not usually the case, for the birds were not abundant generally before April 1, although no set rule could be laid down regarding their appearance or departure either in spring or fall. They usually came with a mighty rush. Sometimes they did not appear, or, at least, only very sparingly. Their nesting sites would remain the same for years if the birds were unmolested, but they generally had to change every year or two, or as soon as the roost was discovered by the despicable market netter.

Where the mighty numbers went to when they left for the south is not accurately stated, and, of course, this

will now never be known, but they were found to continue in flocks in Virginia, Kentucky and even Tennessee.

. . . In the latter part of April or early May the birds began nesting. The nest building beginning as soon as the birds had selected a woods for a rookery, the scene was one of great activity. Birds were flying in every direction in search of twigs for their platform nests, and it did seem that each pair was intent on securing materials at a distance from the structure. Many twigs were dropped in flying, or at the nest, and these were never reclaimed by their bearers, but were often picked up by other birds from another part of the rookery. This peculiarity in so many species of birds in nest building I could never understand.

It takes a pair of pigeons from four to six days to complete a nest, and any basketmaker could do a hundred per cent. better job with the same materials in a couple of hours. In the nest of the pigeon, man could certainly give the birds points for their benefit, for it is one of the most shiftless structures placed in trees that I have met with.

The nest is always composed of slender dead twigs, so far as I have observed, or ever learned from others, and in comparison, though smaller, much resembles some of the heron's structures. In some nests I have observed the materials are so loosely put together that the egg or young bird can be seen through the

latticed bottom. In fact, it has been my custom to always thus examine the nests before climbing the tree.

The platform structures vary in diameter from six to twelve inches or more, differing in size according to the length of the sticks, but generally are about nine or ten inches across. An acquaintance of mine had tamed some wild birds, which at last bred regularly in captivity. These birds were well supplied with an abundance of material for their nests and always selected in confinement such as described above, and making a nest about nine inches in diameter.

The breeding places are generally found in oak woods, but the great nesting sites in Michigan were often in timbered lands, I am informed.

The height of the nest varies. It may be as low as six feet or all of sixty-five feet from the ground.

Passenger Pigeons are always gregarious when unmolested, and hundreds of thousands sometimes breed in a neighborhood at one time. It is impossible to say how many nests were the most found in one tree, but there are authenticated instances of a hundred. One man, on whose veracity I rely, informs me that he counted 110 nests in one tree in Emmett County, the lower peninsula. Still this may not be correct, for we all know how easy it is to be deceived in correctly counting and keeping record of even the branches of a tree, and when these limbs are occupied by nests it is cer-

tainly doubly difficult, and the tendency to count the same nests twice is increased.

The first nests that I found were in large white oak trees at the edge of a pond. The date was May 17, 1873. The nests were few in number and only one nest in a tree. There was but a single egg in a nest; in fact this is all I have found at any time. The last nest that I have met with south of the forty-third parallel was forty feet up in a tamarack tree in a swamp near the river, June 1, 1884. This nest was alone and would not have been discovered had not the birds flown to it. I have found several instances of pairs of pigeons building isolated nests, and cannot help but think that if all birds had followed this custom that the pigeons would still be with us in vast numbers.

As late as May 9, 1880, my lamented friend, the late C. W. Gunn, found a rookery in a cedar woods in Cheboygan County. These nests contained a single egg each, and he secured about fifty fresh eggs. He did not think their number excessive, as the netters were killing the birds in every direction. But now we can look upon such a trip almost as devastation because the birds are so scarce.

In 1885 I met with the pigeon on Mackinac Island, and have found a few isolated flocks in the Lower Peninsula since then, generally in the fall, but it is safe to say that the birds will never again appear in one-thousandth part of the number of former years.

The places where the birds are nesting are interesting spots to visit. Both parents incubate and the scene is animated as the birds fly about in all directions. However, as the bulk of the birds must fly to quite a distance from an immense rookery to find food, it necessarily follows that the main flocks arrive and depart evening and morning. Then the crush is often terrific and the air is fairly alive with birds. The rush of their thousands of wings makes a mighty noise like the sound of a stiff breeze through the trees.

Often when the large flocks settle at the roost the birds crowd so closely on the slender limbs that they bend down and sometimes crack, and the sound of the dead branches falling from their weight adds an additional likeness to a storm. Sometimes the returning birds will settle on a limb which holds nests and then many eggs are dashed to the ground, and beneath the trees of a rookery one may always find a lot of smashed eggs.

Later in the season young birds may be seen perched all over the trees or on the ground, while big squabs with pin-feathers on are seen in, or rather on, the frail nests, or lying dead or injured on the ground. The frightful destruction that is sure to accompany the nesting of a rookery of Passenger Pigeons is bound to attract the observer's eye. And we cannot but understand how it is that these unprolific birds with many natural enemies, in addition to that unnatural enemy, man, fail to

increase. If the pigeon deposited ten to twenty eggs like the quail the unequal battle of equal survival might be kept up. But even this is to be doubted if the bird continues to nest in colonies.

Many ornithological writers have written that the wild pigeon lays two eggs as a rule, but these men were evidently not accurate observers, and probably took their records at second-hand. There is no doubt that two ✓ eggs are quite often found in a nest, and sometimes these eggs are both fresh, or else equally advanced in incubation. But these instances, I think, are evidences alone that two females have deposited in the same nest, a supposition which is not improbable with the gregarious species.

That the wild pigeon may rear two or three young in a season, I do not doubt, and an old trapper and observer has offered this theory to explain the condition where there are found both egg and young in the same nest, or squabs of widely varied ages. He asserts that when an egg is about ready to hatch, a second egg was deposited in the nest, and that the squab assisted in incubating the egg when the old birds were both away for food, and that in time a third and last egg was laid, so that three young were hatched each season, if the birds are unmolested.

This peculiarity may exist with the pigeon, but I can add nothing to further it from my own observations, except to record the finding of an egg in the nest with

a half-grown bird—the only instance in my experience. From watching the ways of some captive birds kept as stool-pigeons, I am well satisfied that two young are not rarely hatched at some weeks apart, and they do fairly well in confinement.

The young are fed by a process known as regurgitation, the partially digested contents of the birds' crops being ejected into the mouths of the squabs.

The position of the nest varies greatly. Often the nests are well out on slender branches and in dangerous positions, considering the shiftlessness of the structure. When a rookery is visited, nests may be found in all manner of situation. I have found single nests built on small twigs next the body of an oak tree, and at a height of only ten feet, and again have seen nests forty feet up in thick tamaracks.

The eggs do not vary much in size or color. They are white, but without the polish seen on the egg of the domestic pigeon. About one and one-half by one inch is the regulation size.

By reference to old price lists of nearly a quarter of a century ago I find that the eggs were then listed at twenty-five cents, while it would be difficult to secure good specimens at present at six times the figure.

CHAPTER XIX

Miscellaneous Notes

THE earliest mention of the wild pigeon I have been able to find is the following, taken from *Forest and Stream*, to which it was contributed by F. C. Browne, Framingham, Mass. It is from an old print entitled, "Two Voyages to New England, Made During the Years 1638-63," by John Josselyn, Gent. Published in 1674. I am not so fortunate as to possess an original copy. This extract is from the Boston reprint of 1865, and is from the "Second Voyage" (1663), which has a full account of the wild beasts, birds and fishes of the new settlement:

"The Pidgeons, of which there are millions of millions. I have seen a flight of Pidgeons in the Spring, and at Michaelmas when they return back to the Southward, for four or five miles, that to my thinking had neither beginning nor ending, length nor breadth, and so thick that I could see no Sun. They join Nest to Nest and Tree to Tree by their Nests many miles together in Pine-Trees. I have bought at Boston a dozen Pidgeons ready pulled and garbided for three pence. But of late they are much diminished, the English taking them with Nets."

It will be noted that the wild pigeons began to be "much diminished" even at that early date.

The following extract is from the journal of the voyage of Father Gravier in the year 1700:

"Through the Country of the Illinois to the Mouth of the Mississippi."

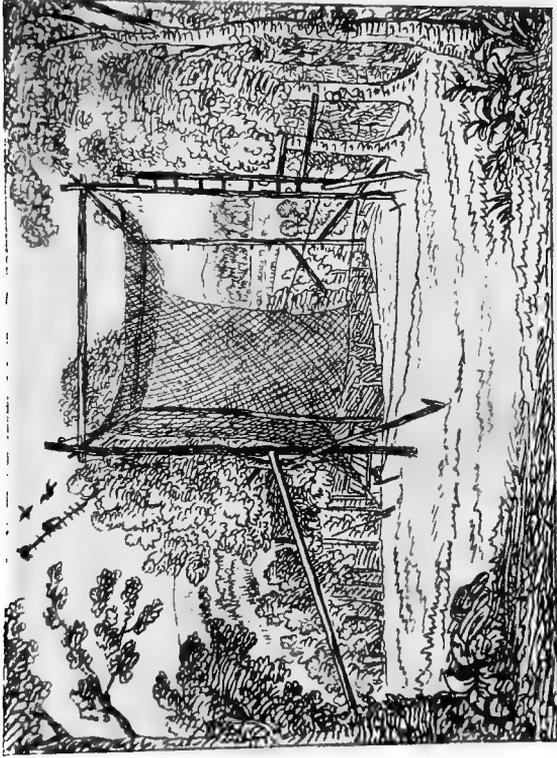
Under date of October 7th he says:

"Below the mouth of the Ouabache (meaning the Wabash River), we saw such a great quantity of wild pigeons that the air was darkened and quite covered by them."

The journal of Alexander Henry, the younger, written in August, 1800, states that large numbers of wild pigeons were seen and used for food by his party. This was at a point on the Red River not far north of what is now Grand Forks, N. D.

The Passenger Pigeon found a place in a book called "Quebec and Its Environments; Being a Picturesque Guide to the Stranger." Printed by Thomas Cary & Co., Freemasons' Hall, Buade Street, 1831. A rare copy was found in the library of the late Charles Dean, having been purchased by him while visiting Quebec in 1841. It is now in the possession of Ruthven Deane of Chicago. I quote from this old guide-book as follows:

"At one period of the year numerous and immense flights of pigeons visit Canada, when the population make a furious war against them both by guns and nets;



PIGEON NET

Taken from an old etching



they supply the inhabitants with a material part of their subsistence, and are sold in the market at Quebec remarkably cheap, often as low as a shilling per dozen, and sometimes even at a less rate. It appears that the pigeon prefers the loftiest and most leafless tree to settle on. In addition to the natural beauty of St. Ann and its environs, the process by which the inhabitants take the pigeons is worth remarking. Upon the loftiest tree, long bare poles are slantingly fixed; small pieces of wood are placed transversely across this pole, upon which the birds crowd; below, in ambush, the sportsman with a long gun enfilades the whole length of the pole, and, when he fires, few if any escape. Innumerable poles are prepared at St. Ann for this purpose. The other method they have of taking them is by nets, by which means they are enabled to preserve them alive, and kill them occasionally for their own use or for the market, when it has ceased to be glutted with them. Behind Madam Fontane's this sport may be seen in perfection. The nets, which are very large, are placed at the end of an avenue of trees (for it appears the pigeons choose an avenue to fly down); opposite a large tree, upon erect poles two nets are suspended, one facing the avenue, the other the tree; another is placed over them, which is fixed at one end, and supported by pulleys and two perpendicular poles at the opposite; a man is hid in a small covered house under the tree, with a rope leading from the pulleys in his hand. Directly the

pigeons fly against the perpendicular nets, he pulls the rope, when the top net immediately falls and incloses the whole flock; by this process vast numbers are taken."

"Tanner's Narrative," a story (authentic) of thirty years among the Indians, published in 1830, refers frequently to great numbers of pigeons, and gives their range from the Kentucky, Big Miami and Ohio Rivers to Lake Winnipeg, or "The Lake of Dirty Waters."

Mr. Osborn further adds: "Tanner was a United States Indian interpreter at the Soo."

William Glazier made a trip to the headwaters of the Mississippi River in 1881 and wrote a book entitled "Down the Mississippi River." In three different places in this book he mentions seeing wild pigeons. In one place he says that a small flock of pigeons dropped down in the tops of some tall pines near him.

In Hayden's Survey Report, Interior Department, as given in Coues' "Birds of the Northwest," 1874, it is mentioned that wild pigeons were found on the Pacific coast, and Cooper reports them in the Rocky Mountains. [High authority, but it must have referred to the band-tailed pigeon.—W. B. M.]

From the foregoing chapters I have summarized the latest reports of the presence of the wild pigeon in its former haunts. These instances have been reported as follows:

N. W. Judy & Co., St. Louis, Mo., the largest dealers in poultry and game in that section, said, in 1895, they had had no wild pigeons for two years; the last they received were from Siloam Springs, Ark. This would mean that they were on the market during the season of 1893. Until 1890 frequent reports were recorded of pigeons seen singly, in pairs and in small flocks.

In 1891 Mr. F. M. Woodruff, Assistant Curator of the Chicago Academy of Sciences, secured a pair at Lake Forest, Ill.

A nest with two eggs and two birds were collected by C. B. Brown of Chicago in the spring of 1893 at English Lake, Ind.

In September, 1893, three were reported in Lake County, Ill.

In April of the same year, a male pigeon was reported as having been seen in Lincoln Park, Ill.

Mr. R. W. Stafford of Chicago, Ill., reported seeing a flock in the latter part of September, 1894, at Marengo, Ill.

Mr. John L. Stockton, Highland Park, Ill., reported that while trout fishing on the Little Oconto River, Wis., early in June, 1895, he saw a flock of ten pigeons for several consecutive days near his camp.

A young female was killed at Lake Forest, Ill., in August, 1895.

In October, 1895, Dr. Ernest Copeland of Milwaukee killed one in Delta, Northern Peninsula, Mich.

On December 17, 1896, C. N. Holden, Jr., while hunting quail in Oregon County, Mo., observed a flock of about fifty birds.

Chief Pokagon reports there was a small nesting of pigeons near the head waters of the Au Sable River in Michigan, during the spring of 1896.

A. Fugleburg of Oshkosh, Wis., reports that on the morning of August 14, 1897, he saw a flock of pigeons flying over Lake Winnebago from Fisherman's Island to Stony Brook. This flock was followed by six more flocks containing from thirty-five to eighty pigeons each. The same observer reports that on September 2, 1897, a friend of his reported having seen a flock of about twenty-five near Lake Butte des Mortes, Wis.

W. F. Rightmire reports that while driving along the highway north of Cook, Johnson County, Neb., August 18, 1897, he saw a flock of seventy-five to one hundred birds; some feeding on the ground, others perched in the trees.

A. B. Covert of Ann Arbor, President at one time of the Michigan Ornithological Club, reports seeing stray birds during 1892 and 1894, and states also that on October 1, 1898, he saw a flock of 200 and watched them nearly all day.

T. E. Douglas of Grayling reports seeing a flock of ten near West Branch, Mich., in 1895, and in 1900 he saw three on one of the branches of the Au Sable River in Michigan.

In 1897 C. S. Osborn of Sault Ste Marie reported having seen a single wild bird flying with the tame pigeons around the town.

In 1897 or 1898 C. E. Jennison of Bay City saw six or seven at Thunder Bay Island near Alpena, Mich.

In 1900 Neal Brown of Wausau, Wis., killed one near Babcock, Wis., in September.

George King of Otsego County, Mich., in 1900 saw a flock of one dozen or more birds on the Black River, and he says he heard two "holler" in 1902, but was unable to find them. In May, 1905, he is certain he saw six near Vanderbilt, Mich.

John Burroughs reports that a friend of his, Charles W. Benton, saw a large flock of wild pigeons near Prattsville, Greene County, N. Y., in April, 1906.

EARLY LEGISLATION TO SAVE THE PIGEON

Wild pigeons were used largely by trap-shooters for tournaments. In 1881, 20,000 of them were killed in one of these trap-shooting butcheries on Coney Island, N. Y. The following editorial protest against this outrage appeared in *Forest and Stream*, July 14, 1881:

Mr. Bergh's Anti-Pigeon Bill.—Just as we go to press we learn that the Senate has passed the bill prepared by Mr. Henry Bergh prohibiting the trap-shooting of pigeons. The bill awaits Governor Cornell's signature before becoming a law. Its provisions are:

SECTION 1. Any person who shall keep or use any live pigeon, fowl, or other bird or animal for the purpose of a target or to be shot at either for amusement or as a test of skill in marksmanship, and any person who shall shoot at any pigeon, fowl, or other bird or animal, as aforesaid, or be a party to any such shooting of any pigeon, fowl or other bird or animal; and any person who shall rent any building, shed, room, yard, field, or other premises, or shall suffer or permit the use of any building, shed, room, yard, field, or other premises for the purpose of shooting any pigeon, fowl, or other bird or animal, as aforesaid, shall be guilty of a misdemeanor.

SECTION 2. Nothing herein contained shall apply to the shooting of any wild game in its wild state.

The bill is a direct and not wholly unexpected result of the Coney Island pigeon-killing tournament of the New York State Association for the Protection of Fish and Game. Had the sport of pigeon shooting been confined to individual clubs of gentlemen testing their skill at the traps, it is doubtful if the matter ever would have received, as it would not have merited, public attention. But when a society, which organized ostensibly for the

protection of game, treats the public to such a spectacle as that at Coney Island, neglects the matter with which it should be concerned and devotes 20,000 pigeons brought from their nesting ground to its wholesale slaughter, its members can hardly look for any other public sentiment than exactly that feeling which has been aroused. An afternoon's shoot at a few pigeons, and a ten days' shoot at unlimited numbers of helpless birds—many of them squabs, unable to fly, and others too exhausted to do so—are regarded by the public as two very different things.

THE END

Passenger Pigeon
Rewards 1910
and other data.

...State
...shows his own children,
... (f) plate fig.

[CORRESPONDENCE]

Plan to Save the Passenger Pigeon.

CLARK UNIVERSITY, Worcester, Mass., Jan. 15.
—*Editor Forest and Stream*: We ought to make Col. Kuser's generous offer of a reward for a wild pigeon's nest find not only the first, but practically every passenger pigeon's nest in the United States and possibly in Canada. In order to do this we should call for volunteer awards—at least one of any sum from \$10 to \$100, or more—for first undisturbed nest in each State and Canadian Province. I am practically authorized to start the ball, by offering \$100 for first nest found in Massachusetts. Mr. Mershon writes me under date of Dec. 28 ult. that he withdraws his offer of \$25 for a freshly killed pair of the birds, and offers \$100 for "the first location of an undisturbed nest or nesting colony in Michigan, subject, of course, to confirmation etc.," and he also offers to confirm the finding at his own expense. A complete statement of all similar awards will be printed as soon as it is possible to get them all in.

All sorts of reports continue to appear in the papers, but for the past fifteen years every one that has been run to ground has proved to be a mistake or a hoax. After a busy man has taken an expensive journey to a distant State to meet a man who claims to know the "old passenger pigeon as well as he knows his own children,"

nest ought to work for the most careful conservation of every specimen discovered on the continent. With a species ranging so widely, the requirement of a freshly killed bird might lead to killing a considerable flock if each man who tried for the award shot but a single bird. Now, if a man finds a flock, or even a pair, feeding on his place, he can afford to put down a bed of corn or screenings with some salt and thus try to induce them to remain and nest. And aside from all awards the effort to save to America and to the world the finest species of pigeon ever developed must appeal to all as something worth working for.

I have developed the following plan of campaign for the present and have to start with:

1. A letter file devoted to this topic.
2. A large wall map of North America, in which to insert:
 - (a) Pins bearing red arrows where flocks are reported, giving number of birds and direction of flight.
 - (b) Pins with black cards at localities where pigeons have been reported killed since 1908, with number and date.
 - (c) Pins bearing white cards for experts who are willing to go out and confirm a report in their State or district.
 - (d) Pins with blue labels for nests reported.
 - (e) Pins with gold labels for nests that are confirmed.

(f) Plain black nine for address.

and such as shooting doves or even kill-deers, we cannot blame him for losing patience and even hope, and for claiming, as does Mr. Mershon, that he does not believe that a single live wild specimen exists on the American continent.

This should make us all realize that the case is desperate. We must "quit fooling," get down to business, know what we are talking about, or "keep strictly out of the game." Here is where location of the nest will steady us. There can be no excuse for anyone to make any mistake in the identification of the birds. He can take time to observe them carefully, consult local libraries and authorities and so be absolutely sure.

To insure good faith it ought to be understood that the informant agrees to pay expenses of confirming party, if the birds do not prove to be passenger pigeons. In any case, if two or more reports come in at the same time, that one will be investigated first which incloses a check or P. O. (of say, \$10) with definite agreement to forfeit, if mistaken in the birds.

It is a mere matter of common sense to ask that the information be exclusive and confidential. The one who finds the nest should get the award. He may, of course, obtain such assistance in identifying the birds as he may need, but we must avoid any conflicting claims or squabbles, and if the find were published some skin and egg hunter might "collect" it.

No one connected with this movement wishes to obtain possession of the birds, but every effort will be made to insure their safety and preservation; in fact, the demand for an undisturbed

person who wishes to join the Passenger Pigeon Restoration Club of America, in case nests are discovered.

3. A card index with references to literature.
4. An assistant to help in correspondence and in the clerical work.

I wish to ask for appropriate correspondence on all the above topics, which may forward the work either of discovery or organization. There is no fund available for defraying the expenses of those who may be called upon to confirm reports of nests, but if not otherwise provided for the undersigned is willing to pay such expenses up to \$100, and he asks ornithologists or men who are familiar with the birds to send in their names and addresses from all parts of the country and state exactly what they are willing to do. It is hoped to secure a sufficient number of good names of those who are interested in the cause to the extent of being willing to contribute their time and defray their own traveling expenses, but no one should hesitate to send in his name because unable to do this.

Finally, anyone willing to volunteer an award for the first undisturbed nest discovered in his own State, county or section should send in his name and address, stating amount offered, conditions, etc., as soon as possible in order that a complete list of such awards may be issued with the next notice in February. It will be understood that the first offer from any State will cover the first nest located under the conditions of the offer, the second offer to cover the second nest, and so on.

Let us "play ball."

C. F. HONCE.

From Forest and Stream, January 22, 1910.

[EDITORIAL]

TO SAVE THE PASSENGER PIGEON.

It is gratifying to know that a last effort is being made to find and save from final extinction existing individuals of the passenger pigeon. The history of this effort is explained in the letter from Dr. C. F. Hodge, printed elsewhere in this issue of FOREST AND STREAM.

The following memorandum was read at the meeting of the American Ornithologists' Union, Dec. 9, 1909:

"Through the interest and generosity of Colonel Anthony R. Kuser, I am authorized to offer the following award:

"Three hundred dollars (\$300.00) for first information of a nesting pair of wild passenger pigeons (*Ectopistes migratorius*) undisturbed.

"Before this award will be paid, such information, exclusive and confidential, must be furnished as will enable a committee of expert ornithologists to visit the nest and confirm the finding. If the nest and parent birds are found undisturbed, the award will be promptly paid.

(Signed) "C. WILLIAM BEEBE,

"New York Zoological Park, New York City.

"Furthermore, Colonel Kuser withdraws his former offer of \$100 for a freshly killed passenger pigeon. He does this on account of the great present danger of complete extinction of the species.

be announced followed. It hardly seemed worth while to offer an award for the sight of a bird that might be lost or dead the next day. It was clear that the important thing is to arouse universal interest in the matter and to take some action which may lead to saving the species from extermination. Finally Dr. Hodge said in effect: "What we want is to locate a breeding colony. Why do you not offer the award of \$200 for an undisturbed nest? Then the birds will be there long enough to make identification absolutely sure; we shall know that they are actually breeding, and around such a find we can organize adequate protective measures." "I would give \$300 for that," exclaimed Colonel Kuser," and so the matter was left for Messrs. Beebe and Hodge to draw up the announcement.

It seems now with Colonel Kuser's generous offer for a beginning, that an adequate search of the American continent should be set on foot, and if any of the birds are found breeding we ought to quickly effect the organization of a passenger pigeon restoration club with membership distributed throughout the United States and Canada. This club could then take up the details of protective work. In connection with the State Game Commissions and sportsmen's clubs

"Until Jan. 1, 1911, during Mr. Beebe's absence from America, address all correspondence on the subject to C. F. Hodge, Clark University, Worcester, Mass., who will arrange for confirming party and payment of the award, if a nest or nesting colony is found."

This action is, in part, a result of a paper presented to the Union by Mr. Hodge on "The Present Status of the Passenger Pigeon Problem." In this paper he took the position that as long as there is life there is hope—as long as there is any possibility of stragglers of this valuable bird existing on the continent we ought to do all in our power to save them. He said that he would not kill a specimen for \$1,000 even to prove that he had seen one, and wished that everyone else felt as he does. All offers for skins or dead birds ought to be withdrawn, because at the present crisis these might result in killing the last pair.

At the close of the session Colonel Kuser said to Dr. Hodge that he wished to withdraw his offer for a freshly killed passenger pigeon. Dr. Hodge said that he did not expect everyone to agree with him, but Colonel Kuser replied that he also felt that he would not have one of the birds killed for \$1,000. "Well then," replied Dr. Hodge, "why not let your offer stand for the location of a live specimen?" Colonel Kuser said: "I would gladly give \$200 for that."

Some discussion as to how the award should

it could obtain adequate legislation and warden service, so that for a term of years the birds may be permitted to feed and breed in absolute safety and be accorded the freedom of the continent. The organization of the people of a continent around such an interest is in itself an inspiring thing.

This plan should be effective as well in discovering existing passenger pigeons as in protecting them when discovered.

Since the above was written, there have been other offers of rewards for undisturbed nests of passenger pigeons, for the matter has been received with gratifying interest—an interest which ought to grow. Let us then have more awards and without delay. There should be enough to cover the whole continent and to arouse an interest everywhere. If no nests are found it will cost no one anything; if nesting colonies are found and protected, it will be worth a great deal.

Here is the list of the offers of awards up to January 19, 1910:

Col. Anthony R. Kuser, for first nest or nesting colony on North American continent, confirmed,	\$300
Wm. B. Mershon, for first nest for Michigan, 100	
Edw. Avis, for first nest for Connecticut, 100	
Messrs. Deane and Whitman, first nest for Illinois,	100
John E. Thayer, five awards of \$100 each for the five most likely States or Canadian provinces from which no local offers have been secured by April 15,	500
County Awards: Allen A. Miller, for first nest found in Worcester Co., Mass.,	20

