

UNPUBLISHED MANUSCRIPTS BY COTTON MATHER  
ON THE PASSENGER PIGEON

BY ARLIE W. SCHORGER

WHILE working on a history of the Passenger Pigeon (*Ectopistes migratorius*) it was found that Cotton Mather had submitted several ornithological manuscripts to the Royal Society of London.<sup>1</sup> Only extracts from this material have appeared in print. The two manuscripts on the Passenger Pigeon, given below, are not dated but appear to have been written in 1712 and 1716, respectively. It is not difficult to arrive at a satisfactory reason for the failure of his manuscripts to receive full publication at the time of preparation. An abstract of one of his letters to the Society reads as follows: "As to the Itinerants; he takes notice of vast Flights of Pigeons, coming and departing at certain Seasons: And as to this, he has a particular Fancy of their repairing to some undiscovered Satellite, accompanying the Earth at a near distance."<sup>2</sup> Some information on pigeons is given also in his 'Christian Philosopher'.<sup>3</sup> The incredible numbers in which the Passenger Pigeon occurred coupled with "religious improvements" could have made an editor wary even in those days.

The manuscripts aside from historical value contain some interesting information. There is recognition of a chronological division of duties between the male and female while the pigeons were nesting. In so far as known, Mather is the first to mention the production of "milk" by the Passenger Pigeon. It is a tribute to the keenness of observation of the Indians that they should recognize that this substance was formed by a metabolic process and that to it was due the phenomenal growth of the young pigeon. It will be noted, furthermore, that the Indian name for the Passenger Pigeon "signifies Wanderers." The common Algonquian word for pigeon is *omimi* but no similar word resembling it and meaning *wanderer* is known at this day. Mather's statement is probably of Natick origin. Williams<sup>4</sup> gives *wuskowhan* as the name for pigeon in the Narragansett dialect, while Lewis states more specifically: "The Indians called the pigeon *wuscowhan*, a word signifying a wanderer." The colonists acquired much of their knowledge of natural history from the Indians, so that *migratory* and *passenger* in English are but synonyms of *wuskowhan*. The latter, doubtless, was also the inspiration for the specific name *migratorius* subsequently applied by Linnaeus.

## THE PIGEONS

Proposing to answer your desire of a Treat with a further mess of o<sup>r</sup> Pigeons, I must in the first place confess, that they sometimes make one

think of the *Quails*, with which y<sup>e</sup> Appetites of the Israelites were gratified in y<sup>e</sup> Arabian Desert. The Sacred Historian mentions these as arriving in such a Number, that they were *as the Sand of the Sea*, and they were scattered not only thro' y<sup>e</sup> whole camp, but also a day's journey which we may take to be twenty miles at least, on both sides of it: And it is added they were *as it were two cubits high, upon the Face of y<sup>e</sup> Earth*. I know, both *Jonathan* and *Jerome* carry that passage, as only meaning that they flew *Two cubits high above the Earth*. A Jewish Rabbi, therefore, notes upon it, that their Flight was *Ad humani Pectoris Altitudinem*; that so there might be ye Less of Trouble in catching them: And Philo<sup>6</sup> takes notice, that such a Flight was ordered, εἰς εὐθρον that they might have the more *Easy Fowling* of it. Nor is this disagreeable to Pliny's<sup>7</sup> Remark, on y<sup>e</sup> *Quail*, That, *cum ad nos venit, Terrestris potius, quam sublimis est*. But, why may it not suffice to say, that they lay in scattered and numberless Heaps, every where, not far asunder *Two Cubits high*. And what we render *Ten Homers*, which are mentioned as y<sup>e</sup> Least Quantity of y<sup>m</sup> gathered by any who employed themselves in gathering of y<sup>m</sup>, a famous interpreter, I remember, directs us with very good reason to read, *Heaps*, rather than *Homers*; and if I don't forgett, both *Onkelos*, and the *Arabic*, do read it so. And therefore there was no need for, A *Lapide*, to be at the pains of casting up the precise Number of the Birds then gathered by the Israelites, which he finds to be *Twelve Thousand Millions*. On this occasion I call to mind *Varro*<sup>8</sup> tells us, that y<sup>e</sup> *Quails* visited *Italy* in the season of them, *immani Numero*. *Pliny*<sup>7</sup> and *Solin*<sup>9</sup> add that such was the Number of the *Quails* then flying over the *Mediterranean*, as to endanger the Vessels, which thro' weariness they would sometimes light upon. But there was no where a greater plenty of *Quails*, than in *Egypt*, from whence they were now brought unto the *Israelites*. Many ancient writers tell us, They were so many in their Seasons, that the Egyptians not being able quickly to devour y<sup>m</sup> salted y<sup>m</sup> up; tho' *Theocritus* tells us, there were Thirty Thousand Towns in that country; and *Josephus* tells us, there were many more than seven hundred & fifty myriads of people there. But, while I am thus falling to a Dish of y<sup>e</sup> *Israelitish Quails*, *Job Ludolphus*<sup>10</sup> comes in, & wholly turns my Stomach, by proposing, that there were no *Quails* at all in y<sup>e</sup> Story, but that all this while they were no other than *Locusts*, which are intended by the Term *Selan*, which we have mistranslated, *Quails*, upon y<sup>e</sup> credit of one single Jew, who is not always to be relied upon.

A better Dish than *that*, you would have in y<sup>e</sup> *Pigeons*: A Bird which in almost every thing resembles your *Turtle-Doves*; only that it is a little Bigger. The *Numbers* of those, that visit us in their *Seasons*, are such, that I am almost afraid of giving you a true Report of them, lest you should imagine a *Palephatus* were imposing his *Incredibles* upon you. Yett it will

a little answer y<sup>e</sup> intention of y<sup>e</sup> Correspondence wherewith you favour me, if I do report something of them.

I affirm to you then; That sometimes we have mighty Flocks of those *Pigeons* flying over us; thousands in a Flock; y<sup>e</sup> best part of a mile square occupied by a Flock: These passing along, y<sup>e</sup> Welkin in a manner obscured & covered with y<sup>m</sup>; & several Hours have run out, before ye appearance of these Birds thus making y<sup>e</sup> best of their way have been over.

They have been frequently sold for Two Pence or Three Pence a Dozen: tho' two or three of y<sup>m</sup>, Roast or boild or broil'd, may make a meal for a Temperate Man. Yea: they are sometimes kill'd in such plenty, that the cuntrypeople feed their Hogs with y<sup>m</sup>. One of my Neighbors has killed no fewer than two & thirty dozen at one Shott.

Gentlemen have complained unto me, that they have Litt in such Numbers on their Trees as to break down y<sup>e</sup> Limbs thereof, & spoil their Orchards.

They will sometimes roost at Night in such Numbers among y<sup>e</sup> Thickets, that y<sup>e</sup> people with no other weapons than Sticks & Poles kill Thousands of y<sup>m</sup>.

One worthy person of my Acquaintance had a Descent of them in his Neighborhood in y<sup>e</sup> month of *December*, a very unusual Time of the Year; while there was yett no *Snow*, but many *Acorns* on the ground, which 'tis thought, might then draw y<sup>m</sup> thither. At their Lighting on a place of Thick Woods, the Front wheel'd about, the Flanks wheel'd inward, and Rear came up, [S<sup>r</sup>, He was a *Captain*, who gave me the written Relation!] and pitch'd as near to the Center, as they could find any Limb, or Twig, or Bush to seize upon. Yea, they satt upon one another like Bees, till a Limb of a Tree would seem almost as big as an House. 'Tis incredible to tell, how Large & Strong & Many Limbs were broken down, by this New Burden upon y<sup>m</sup>. The breaking of y<sup>m</sup> were heard at a mighty Distance. The Birds filled more than Half a mile, about from the Center, and the Noise they made, was like ye Roaring of the Sea. The Night was dark; but this Gentleman, and his Sons, with Guns & some other less Noxious Tools, laid in among y<sup>m</sup>, & some they took alive with their Hands; and in y<sup>e</sup> morning found y<sup>e</sup> Number of their Slain, to be one hundred & three Dozen; besides, what some other people had carried away.

A few Days ago I was at a Table of some Superior Gentlemen, relating some of these things: and One, whose Veracity was not to be disputed, said He had a Story that would cap all of mine; For (said he,) *I have caught no less than Two Hundred Dozens of Pigeons, in Less than two minutes of Time & all in one Trap*: The pleasant mention of the *Whetstone*<sup>11</sup> on that occasion, obliged y<sup>e</sup> Gentleman immediately to explain himself; and add; *Such a Number broke into my Barn, & bin—by shutting y<sup>e</sup> Door, I had y<sup>m</sup> all at my Mercy*. And y<sup>e</sup> Truth is; They have appear'd in such Numbers

that it has been thought, all y<sup>e</sup> Corn in y<sup>e</sup> Country, would scarce afford y<sup>m</sup> a Breakfast. But o<sup>r</sup> people, enjoy as much of a Divine *Mercy* in such a Supply for o<sup>r</sup> Table in y<sup>e</sup> Wilderness, as if y<sup>e</sup> Bird *Racham*,<sup>12</sup> which y<sup>e</sup> *Talmud* tell of, were making his Appearance.

O<sup>r</sup> Indians call these *Pigeons*, by a Name that signifies Wanderers. But where they go, when they leave us, no man alive can tell. They go not unto o<sup>r</sup> English Colonies to the Southward. If you will not allow y<sup>m</sup> to retire unto some Receptacles above us in o<sup>r</sup> Atmosphere: (which, I wonder, how you can account for your *Season-Birds*, without supposing,) they must have a Retreat in South-west parts of *America*, whereof we are not yett advised.

I will take leave at this time, to add one passage more, which my Friend Captain Billings gives me in a Letter from whence I transcribe this paragraph.

Once in *April*, it being y<sup>e</sup> time of the year that those Birds were on their Nests, they came down to feed on the *Salt-Marsh*. After y<sup>e</sup> manner of Doves, The *Cocks* take care of y<sup>e</sup> Young ones in y<sup>e</sup> Nests, for one part of the Day; & y<sup>e</sup> Hens y<sup>e</sup> Other. I have often killed no less than twenty Dozen at one Setting; but all generally of one Sex. The *Cocks* were always by far y<sup>e</sup> fattest, and when we opened them we found in their *craws*, about y<sup>e</sup> Quantity of half a Gill of a Substance like a Tender *Cheese-Curd*. I asked Some of o<sup>r</sup> Indians, what those *Pigeons* had Eaten; and why the Hens did not feed on the Same. They answered, It was nothing they had eaten, but something that came naturally into their *crops*, as milk does into the Dugs of other Creatures; and that the Hens could not keep their Young alive, when first hatched; and that this nourished the young Birds, & caused them to grow fatter, & fly in half y<sup>e</sup> Time, that any other Birds could attain to it.

All that now remains is to wish you as many Friends, as there have been seen Fowls in y<sup>e</sup> mighty Flocks I have told you of; but among them, a very particular consideration for him, who would be,

Sir, Heavily & Forever

at your Service.

[COTTON MATHER.]

#### THE NIDIFICATION OF PIGEONS

You were not so cloy'd with a small Treat of my New English *pigeons*, which I endeavoured for you, in a former Letter, that you will be unwilling to know any further of them.

Among the entertainments of your *ornithology*, and in y<sup>e</sup> vast field of wonders for which y<sup>e</sup> *Feathered Tribes* have winged your curiosity, you have

allowed a particular consideration to that surprising skill with which their *nidification* is managed.

It surprises us to see, what secure places they find out, and what *proper* ones where their young may ly safe & warm, & have their growth promoted. With what an artificial Elegancy are some of their Nests prepared! Such, that *Human Skill* could hardly imitate it!

We celebrate y<sup>e</sup> Nests of y<sup>e</sup> Indian Bird composed of the Fibres of certain Roots w<sup>ch</sup> we're so curiously interwoven, that they cannot be beheld without astonishment. These *Nests*, the sagacious Bird (which therefore with good reason they call, a *subtle Jack*) hangs on the ends of y<sup>e</sup> Twigs, of y<sup>e</sup> Trees over the Water to secure its Eggs & its young from y<sup>e</sup> Ravages of *Apes*, & other Beasts, that else would prey upon th<sup>m</sup>. And what shall we say of the *Flamingo's*? They build their *Nests* in shallow ponds, wherein there is much mud; which they scrape together into little Hillocks, like Islands appearing out of y<sup>e</sup> water, about a foot & [a] half high from y<sup>e</sup> bottom. They make the Foundation of these Hillocks broad, bringing them up tapering to the top, where they leave a small hollow pitt, in which they lay their eggs; and when they either lay or hatch their eggs, they stand all the while, not on the Hillock but close by it, with their Legs on y<sup>e</sup> ground and in y<sup>e</sup> Water, resting themselves on the Hillock, and covering the hollow nest upon it with their Bodies. Their Legs are very long, and building as they do upon the ground, they could neither draw their Legs conveniently into their Nests, nor sit down upon y<sup>m</sup> otherwise than by resting their whole Bodies, to y<sup>e</sup> prejudice of their Eggs, or Young, were it not for this rare contrivance.

But what my *Pigeons* do, is as worthy to have Remarks made upon it as any of y<sup>e</sup> rest. They build their Nests with little sticks Laid athwart one another, at such distances, that while they are so near together, as to prevent their eggs falling through, they are yet so far asunder that their eggs may feel the cool air coming at th<sup>m</sup>. Now the REASON for this Architecture! 'Tis this; their Bodies are much hotter than those of other Birds, and their Eggs would be perfectly addled by y<sup>e</sup> Heat of their Bodies in y<sup>e</sup> Incubation, if y<sup>e</sup> *Nests* were not so built, that ye cool air might come at th<sup>m</sup> to temper [th<sup>m</sup>].

If Dr. More<sup>13</sup> in his Triumphs over Atheism took y<sup>e</sup> *Eggs* of Birds, for considerable Ingredient of his *Antidote* against that madness, and if Dr. Cheyne<sup>14</sup>, from y<sup>e</sup> subject of these Eggs, did well to take this noble Flight, *it is impossible duely to consider those things, without being rapt into admiration of y<sup>e</sup> Divine Architect*; you will give me leave to add, that y<sup>e</sup> management of o<sup>r</sup> Birds cannot but compell us into the Sense of an intelligent Being, who has imprinted on those little Animals a Disposition to actions of so agreeable a Tendency.

I know not, what well to make of an odd Relation published among you, a few years ago, but so well attested, that a very pious & worthy man wrote a large Treatise upon it, entitled *Vox Corvi*:—which affirms that a *Raven* perching on a steeple & thence turning towards a Quarrelsome Neighborhood was heard very audibly and articulately to utter these words, *Look into the Third of the Collossians*, and the *Sixteenth*. But this is very certain, *Ask the Fowls of y<sup>e</sup> Air & they shall tell thee*. There needs no Genius to take possession of o<sup>r</sup> Birds that we may hear y<sup>e</sup> Admonitions of Piety, and Exhortations to Believe and Adore an Infinite God intelligibly enough proceeding from y<sup>m</sup>.

I am glad, that from y<sup>e</sup> Wing of one of y<sup>m</sup> I am furnished with that Engine; wherewith I may now assure you that I am, with very great Respect, Sr,

Your

[COTTON MATHER]

The writer desires to express his thanks to Mr. Allyn B. Forbes of the Massachusetts Historical Society for permission to publish the above manuscripts, and to Dr. Gilbert H. Doane, director of the libraries of the University of Wisconsin, for numerous favors including a clue to the above manuscripts.

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8. VARRO, MARCUS TERENTIUS. *De Re Rustica*.
9. SOLINUS, CAIUS-JULIUS. *Collectanea Rerum Memorabilium*. Edited by T. Mommsen, Berlin, p. 74, 1895.
10. LUDOLFUS, JOBUS. *Diss. de Locustis*, 1694.
11. Alludes to the old custom of hanging a whetstone around the neck of a liar.
12. MATHER, *l. c.*, p. 195. "In the XIVth. of Deuteronomy there is a Bird called Racham, which signifies Mercy. The Talmudists have a Saying, That when this Bird appears, the Mercy of God and His Messiah is then coming to the World."
13. MORE, DR. HENRY. *A collection of Several Philosophical Writings: Antidote Against Atheism, Etc.* 4th ed., London, p. 67, 1712. ". . . I demand further, what is it makes the Bird to prepare her Nest with that Artifice, to sit upon her Eggs when she has laid them, and to distinguish betwixt these and her useless Excrement? Did she learn it of her Mother before her? . . ."

14. CHEYNE, GEORGE. *Philosophical Principles of Religion*. Ed. 2, London. Part I, chap. 48, p. 359, 1715. "It is very remarkable, that those Animals, Plants and Minerals, that are of most use . . . are more productive of their kind than others, and are found in most Places. . . . Thus Hens, Geese, and Turkeys are more Productive than Crows or Jackdaws, and Conies, and Hares, than Foxes or Lyons; thus a Crane, which is but scurvy Meat, lays but two eggs, and the Alca and some other Sea Fowls, but one, whereas the Partridge and the Pheasant hath Fifteen or Twenty, and those which lay fewer, and are of most value for Food, lay oftner, as the Woodcock and the Dove."

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