WILD TURKEYS

Domesticated by American Aborigines—Hybridity of Present Stocks—Habits of Birds in the Woods—Changes Produced Under Domestication

Review of a Book by EDWARD A. McILHENNY, Avery Island, La.

LARGE and handsome, the wild turkey has inevitably attracted constant attention since the days of the first explorers of America. The literature to which it has given rise is considerable, but it is doubtful whether any writers give a more accurate close-range view of the fowl than do those of the book here reviewed.¹

As to the first appearance of the bird on this continent, authorities differ. Marsh described a species under the name of *Meleagris altus* from the Post-pliocene deposits of New Jersey, which is now held to be the same as Cope's *M. superba* from the Pleistocene of the same state. The material on which this species was based consisted of a few damaged leg-bones, which Dr. Shufeldt, who reviews the subject in the present book, thinks may not have belonged to a turkey at all. The same may be said of another of Marsh's prehistoric species, *M. antiquus*, described from a wing-bone found in Colorado; and to still another species, *M. celer* Marsh, re-created from a few doubtful bone fragments which, it is admitted, may not all have belonged to the same individual.

In short, a careful re-examination of the case shows no well-authenticated turkeys in the geologic record of America. Doubtless they existed, but we have not the material to prove it; and, as Dr. Shufeldt says, "It is often a positive detriment to science, in my

opinion, to create new species of fossil birds upon the distal ends of long bones, and surely no assistance whatever to those who honestly endeavor to gain some idea of the avian species that really existed during prehistoric times."

When we come to the historic period, however, we at once find the turkey in practically all the wooded country of North and Central America. The first description seems to have been given by Oviedo in the thirty-sixth chapter of his "Summary of the Natural History of the Indies," which appeared about the year 1527. "He speaks of it as a kind of Peacock found in New Spain, of which a number had been transported to the islands of the Spanish Main and domesticated in the houses of the Christian inhabitants."

IMPROVED IN MEXICO

The Spaniards found them thoroughly domesticated in Mexico, the tame breed having been brought to a size twice that of the wild birds, and the Aztec emperor Montezuma is said to have raised thousands of them to feed the animals of his zoological garden. From Mexico or Yucatan they were introduced to Europe, having reached England, apparently, as early as the year 1524, and quickly becoming very plentiful there. From England and Spain they spread over the rest of the continent.

As the Mexican turkey differs in many respects² from those of the United

¹ The Wild Turkey and Its Hunting. By Edward A. McIlhenny. Illustrated from photographs. Pp. 245, price \$2.50 net. New York, Doubleday, Page & Co., 1915. The book was written by Mr. McIlhenny largely from notes left by Charles L. Jordan; two chapters are contributed by Dr. R. W. Shufeldt, of Washington, D. C.

² The systematic position of the various turkeys has been much disputed. At present the North American forms are all credited to one species, *Meleagris gallopavo*, the type of which is furnished by the Mexican bird, while four subspecies are distinguished in the United States. In Greek and Latin the name *Meleagris* designated the Guinea-fowl, and the early writers on the turkey appear to have thought they were dealing with a variety of that bird. The name *Turkey* was formerly thought to be related in some way to the Turks, but is now believed to be either an American Indian name or to be derived from the call of the bird itself.

WILD TURKEYS COMPETING FOR A MATE

These two males have been attracted by a photographer, who is hidden in the brush and imitating, with a caller, the love note of the turkey hen. The males stalk up and down, in such a case, and go through an elaborate performance for the purpose of impressing the hen. The one at the left is just beginning the "strut," which is described in the text. Photograph from "The Wild Turkey and Its Hunting." (Fig. 17.)

States, the result has been that the domesticated turkeys of Europe differ somewhat from those of the United States. During the last century the various forms have been crossed and intercrossed in the United States, so that the domestic flocks of bronze turkeys mostly contain recent infusions of wild-turkey blood, while the wild flocks have a great deal of domestic blood. On this point we read:

"In countries thickly settled, as in the one where I now write, there is a great variety of wild turkeys scattered about in the woods of the small creeks and hills. Many hybrid wild turkeys are killed here every year. The cause of this is: every old gobbler that dares to open its mouth in the spring is within hearing of farmers, Negroes, and others, and is a marked bird. It is given no rest until it is killed; hence there are few or no wild turkeys to take

care of the hens, which then visit the domestic gobbler about the farmyards. Hence this crossing with the wild one is responsible for a great variety of plumages.

"I once saw a flock of hybrids while hunting squirrels in Pelahatchie swamp, Mississippi, as I sat at the root of a tree eating lunch, about 1 o'clock, with gun across my lap, as I never wish to be caught out of reach of my gun. Suddenly I heard a noise in the leaves, and on looking in that direction I saw a considerable flock of turkeys coming directly toward me in a lively manner, eagerly searching for food. The moment these birds came in sight I saw they had white tips to their tails, but they had the form and action of the wild turkey, and it at once occurred to me that they were a lot of mixed breeds, half wild, half tame, with the freedom of the former. I noticed also

among them one that was nearly white and one old gobbler that was a pure wild turkey; but it was too far off to shoot him. Dropping the lunch and grasping the gun was the work of but a second; then the birds came round the end of a log and began scratching under a beech tree for nuts. Seeing two gobblers put their heads together at about 40 yards from me, I fired, killing both. The flock flew and ran in all directions. One hen passed within 20 paces of me and I killed it with the second barrel. A closer examination of the dead birds convinced me that there had been a cross between the wild and the tame turkey. The skin on their necks and heads was as yellow as an orange, or more of a buckskin, buff color, while the caruncles on the neck were tinged with vermilion, giving them a most peculiar appearance; all three of those slain had this peculiar marking, and there was not a shadow of the blue or purple of the wild turkey about their heads, while all other points, save the white tipped tail feathers, indicated the wild blood."

INCREASE IN BRAIN POWER

It appears that there are numerous small anatomical differences between the typical wild and typical tame turkey, one of them being a difference in the size of the brain cavity. "Mentally the average wild turkey is stronger than the average domesticated one, and I believe it will be found that in all these long years the above influences [of domesticity] have affected the size of the brain-mass of the latter species in the way above indicated, and perhaps it may be possible some day to appreciate this difference. Perhaps, too, there may have been also a slight tendency on the part of the brain of the wild turkey to increase in size owing to the demands made upon its functions due to the influence of man's nearer approach and the necessity of greater mental activity in consequence."

Data are still lacking to determine precisely the extent to which the wild turkey changes in a few generations of domestication. J. D. Caton, who has

bred many wild turkeys in captivity, writes on this point:

"My experiments establish first that the turkey may be domesticated, and that each succeeding generation bred in domestication loses something of the wild disposition of its ancestors. Second, that the wild turkey bred in domestication changes its form and the color of its plumage and its legs, each succeeding generation degenerating more and more from these brilliant colors which are so constant in the wild turkey of the forest, so that it is simply a question of time—and indeed a very short time—when they will lose all their native wildness and become clothed in all the varied colors of the common domestic turkey; in fact, be like our domestic turkey—yes, be our domestic turkey."

The loss of this plumage must be a bitter pill for the male to swallow, if we are to accept the picture of him which is vividly painted for us. He is a regular Turk, we are informed, polygamous in the extreme and desirous above all of a well-filled harem. "He cares not a bit for the rearing or training of his family; in fact, it has been alleged that he follows his mates to their nests and destroys and eats the eggs. This I do not believe, nor will I accuse him of such conduct. He is a vain bird and craves admiration, and acts as if he were a royal prince and a genuine dude, and he will have admiration though it costs him his life. He is a gay Lothario and will covet and steal his neighbors' wives and daughters; and if his neighbors protest, will fight to the finish. He is artful, cunning, sly, at the same time a stupendous fool. One day no art can persuade him to approach you, no matter how persuasively or persistently you call; the next day he will boldly walk up to the gun at the first call and be shot. He has no sentiment beyond a dudish and pompous admiration for himself, and he covets every hen he sees. He will stand for hours in a small, sunny place, striving to attract the attention of the hens by strutting, gobbling, blowing, and whining, until he nearly starves to death. I believe he would almost rather be dead than

to have a cloudy day, when he is deprived of seeing the sun shining on his glossy plumage; and if it rains, he is the most disconsolate creature on the face of the earth."

SEXUAL SELECTION

Thanks to the activity of hunters, males are much fewer than females; consequently the polygamous nature of the bird is favored. Beyond this, however, it appears that there is a considerable amount of sexual selection, many gobblers having large harems while others remain unmated. At mating time the males often fight each other, but the writer contradicts Audubon's statement that the weaker are then killed by the stronger. "I have seen many encounters as he describes, but have never in all my life seen one gobbler killed by another, or even crippled, although I have seen two or three birds fight together for hours at a time. Nor have I ever found a gobbler dead in the woods as the result of such an encounter, or even in a worried condition. I have killed many old gobblers and found their necks and heads covered with blood, with spur punctures all over their breasts; but this never stopped them from gobbling, nor are these wounds deep, as the spur, which is an inch and a quarter long in the oldest of them, can only penetrate the skin of the body after passing through the heavy mail of the thick, tough feathers."

Although such an idea is regarded with disfavor by many biologists at the present time, the writer's account indicates that he considers sexual selection to be dependent principally on the selective choice of the hens, whom the males endeavor to attract by the well-known "gobble," and a variety of other evolutions which are thus described:

"In the early morning, during the spring, a gobbler will fly from his roost to the ground, strutting and gobbling, whether a hen is in sight or not; this is done to attract the hens, and it is then you will hear the puffs to which Audubon refers. This sound is produced by the gobbler in expelling the air from its lungs, at the beginning of the strut,

the sounds and motions of which have never been satisfactorily described. While going through the strut the gobbler produces a number of notes and motions that are of interest; first, the wings are drooped until the first six or eight feathers at the end of the wings touch the ground; at the same time the tail is spread until like an open fan and erected at right angles to the body; the neck is drawn down and back until the head rests against the shoulder feathers, and the body feathers are all thrown forward until they stand at about right angles to their normal place. At the same time the body is inflated with air, which, with the drooping wings, spread tail, and ruffled feathers, gives the bird the appearance of a big ball. Having blown himself up to the full capacity of his skin, the gobbler suddenly releases the air, making a puff exactly as if a person, having inflated the cheeks to their full capacity, suddenly opens the mouth. As the puff is given, the bird steps quickly forward four or five paces, dragging the ends of the stiff wing feathers along the ground, making a rasping sound; he throws forward his chest, and, gradually contracting the muscles, forces the air from his body with a low, rumbling boom, the feathers resuming their normal position as the air is expelled. Three distinct sounds are produced: *Puff, cluck, b-o-o-r-r-r-m-i*. At the termination of the gobbling season the primaries of the wings, which are used to produce the cluck, are badly worn by the continued dragging on the ground."

PRESERVING THE TURKEY

A performance of this sort is naturally conspicuous and since the days of Audubon it has been prophesied that the wild turkey would soon become extinct, due to the activity of hunters who follow his call from considerable distances (it is said the gobble can be heard for two miles in favorable atmospheric conditions). There is no game, however, we are told, that holds its own so well as the wild turkey. In the southern states the bird is still to be found in reasonable abundance, and, says the writer, "if these states will protect them

by the right sort of laws, I am of the opinion that the birds will increase rapidly, despite the encroachment of civilization and the war waged upon them by sportsmen. It is not the legitimate methods of destruction that decimate the turkey ranks, as is the case with the quail and grouse, but it is the nefarious tricks the laws in many states permit, namely, trapping and baiting. The latter is by far the most destructive, and is practiced by those who kill turkeys for the market, and frequently by those who want to slaughter these birds solely for count. No creature, however prolific, can stand such treatment long. The quail, though shot in great numbers by both sportsmen and market hunters, and annually destroyed legitimately by the thousands, stand it better than the wild turkey, although the latter produces and raises almost as many young at a time as the quail.

"There are two reasons for this: One is, the quail are not baited and shot on the ground; the other reason is that every bobwhite in the spring can, and does, use his call, thus bringing to him a mate; but the turkey, if he dares to gobble, no matter if he is the only turkey in a radius of 40 miles, has every one who hears him and can procure a gun, after him, and they pursue him

relentlessly until he is killed. Among the turkeys the hens raised are greatly in excess of the gobblers. This fact seems to have been provided for by nature in making the male turkey polygamous; but as the male turkey is, during the spring, a very noisy bird, continually gobbling and strutting to attract his harem, and as he is much larger and more conspicuous than the hens, it is only natural that he is in more danger of being killed. Suppose the proportion of gobblers in the beginning of spring is three to fifteen hens in a certain stretch of woods. As soon as the mating season begins, these gobblers will make their whereabouts known by their noise; result—the gunners are after them at once, and the chances are ten to one they will all be killed. The hens will then have no mate, and no young will be produced; whereas, if but one gobbler were left, each of our supposed fifteen hens would raise an average of ten young each, and we would also have 150 new turkeys in the fall to yield sport and food. It has always been my practice to leave at least one old gobbler in each locality to assist the hens in reproduction. If every hunter would do this the problem of maintaining the turkey supply would be greatly solved."

The Age of Parenthood

There is a widespread idea that people formerly married very early in life, and now marry very late. Census figures have demonstrated that as far as concerns the United States, during the past half century, young people are marrying today at an earlier average age than formerly. Genealogical data compiled by Charles Nutt of Worcester, Mass., indicate that five or six generations ago marriage took place at about the same time as nowadays. In the Colonial period, he finds that the aver-

age age of parents at the time their children were born is about 31 years. This is an indirect way of getting at the facts, but it tallies with the investigation of C. L. Redfield, who found that the average age of fathers was 32 and of mothers 29, in a large number of New England families. As families were larger formerly than now, it is evident that parallels between the ages of parents then and now must be drawn with care, if based on such averages as those here given.