

Article XVIII. — HYBRIDS BETWEEN THE GAME COCK AND THE GUINEA FOWL.

By JUAN VILARÓ, M.D.

PLATES XXV AND XXVI.

It has been my privilege to own six living specimens, resulting from the sexual union of male individuals of the genus *Gallus* with female individuals of the genus *Numida*. Four of these were dissected, three of which proved to be males, although all were without spurs. All were studied in life.¹ The results of these observations are presented in the present paper.

In life these hybrids had only one phonetic expression—a single chirping sound, which might be taken either as a complaint, a war-cry, or as a manifestation of fear. These were the only emotions which called forth the sound. It had not the least resemblance to the various notes or cries we are accustomed to hear from gallinaceous birds. It was rather like the creaking noise produced by vigorously rubbing together two pieces of iron. When thus agitated they erected the feathers of the head and neck, and the tail. They generally, even when perfectly at rest, kept their mouths open, a sign of difficult, panting respiration. (This is shown in Fig. 2, Pl. XXV, taken from a living specimen.)

They were all distinguished, especially the first four that came into my possession, by a quarrelsome, aggressive disposition common to Guinea-fowls. They gave their companions of the poultry yard no peace, not respecting even the chief, to whom all but the hybrids gave respect. For this reason I was compelled to sacrifice them, one after the other. They never, however, attacked each other. On the contrary they frequently gathered in a group for the attack on other fowls, and even relieved each other when persecuting an enemy. Although all but one were found on dissection to be males, none of them had spurs.

In order better to appreciate their peculiarities, it may be well to recall that in the genus *Gallus* there are wattles, a toothed

¹ Four of the specimens here described have been kindly presented by Dr. Vilaró to the American Museum of Natural History.—Ed.]

crest or 'comb,' a folded tail, with long flowing coverts, and spurs in the male. In the genus *Numida* the head is naked, with a casque or protruberance on the forehead; there are wattles on the sides of the throat; the tail is very short, and the legs are without spurs.

The hybrids may be described as follows:

Number 1.—Product of a male game-cock called in Cuba *Gallo Inglés* and *Gallo fino*, and a female Guinea-fowl or Pintado, called in Cuba *Gallina de Guinea*, or *Guinea*. It measured from the end of the beak to the end of the tail, 650 mm., and from the base of the left foot to the back, 310 mm.

This hybrid was obtained, after various fruitless attempts, covering a considerable period, by Mr. Andrew Perez, on his estate, 'Industria,' Jurisdiction of Batabanó, Cuba. I have no further history of its origin. I was indebted for this, the first specimen of the kind I had seen or heard of, to the kindness of my friend Dr. Francisco Rayneri, a distinguished physician of Havana, who presented it to me in 1887. I kept it alive for two years, but its quarrelsome and aggressive disposition—a trait common to all Rooster-Guineas I have known—and its inclination to escape at every opportunity, compelled me at last to sacrifice it. Although a male, not the least procreative tendency was observed in this hybrid by either my attendants or myself. I presented the specimen in 1889 to the Academy of Sciences of Havana, with a note which was published (unfortunately with many errors) in the 'Annals' of that Society (Vol. XXV, pp. 731-733).

As represented in the accompanying illustrations (Pl. XXVI, Fig. 2), the scarcity of feathers on the forehead is not clearly seen, but the nakedness of the periorbital region is distinctly apparent. In the present specimen, as in the other five, a glance is sufficient to show the absence of the distinctive features of the *Gallus bankiva* type. The fleshy appendages are wanting, including the pectinated crest or comb, as well as the lateral caruncles and the wattles. Nor is there the least trace of the horny casque which surmounts the head of the Guinea-fowl. The absence of spurs may be traced to its maternal ancestor, as the presence of a fifth

toe in specimen No. 2 (presently to be described) is to its paternal progenitor. We also miss the long hackles on the neck, which are scarce in No. 1, scarcer still in Nos. 2 and 3, but quite abundant in No. 4, but short and rigid in each case, and thus very unlike those of the cock. In the absence of hackles we note a resemblance to the Guinea-fowl. The tail in No. 1 is inclined downward, but the rectrices and their coverts are much longer than in *Numida meleagris*.

In respect to general coloration, the prevalence of the whitish and light gray tones is easily seen, the background of the wings being dark, and that of the general plumage dark gray. We look in vain for the white spots fringed with black, upon a bluish or reddish black, or more or less gray and whitish backgrounds common to the *Numida meleagris* of Cuba, both domestic and wild. These characteristic white spots are represented in hybrids Nos. 1 and 2 by alternate, undulating white or gray and black zones. The lesser, median and greater coverts are marked with these undulating, lanceolate markings, which are also seen on the back and rump, but the ends of the feathers are blunt and rounded.

In the primaries of the wings there is a faint reminiscence of the white spots of the Guinea-hen, but only on the outer vanes, the inner vanes being all black. The secondaries are also entirely black on the inner vanes, but the outer, while also black, have gray spots and a white border. The rectrices or caudal feathers differ from those of the Guinea-fowl, and are more like those of the cock, though straight. Some of the greater coverts of the tail are large and silky. Taken altogether the coloration recalls that of the Silver Pheasant, *Phasianus nycthemerus* Linn.

As is frequently the case with hybrids, they are larger than either progenitor, though never reaching the combined size of both. Consequently the legs, especially the scutellæ, nails, and and the beak, are proportionately larger.

Number 2.—This was obtained by Dr. Moreno, of Candelaria, Province of Pinar del Rio, Cuba. The male parent was a game-cock, of a brilliant cinnamon color, called in Cuba *canelo*. The mother was a Guinea-hen of the usual bright black plumage

variegated with white spots. On the right foot is a fifth toe, an appendage of the fourth, inherited from the father. The extra toe is longer and thicker, with a more fully developed nail than the normal fourth toe on the left foot.

The yellowish-white spots of the plumage were more minute than in No. 1, as shown in Pl. XXVI, Fig. 1, photographed from the living specimen. On dissection it was found to be a male. It measured from the end of the beak to the end of the tail, 630 mm., and from the base of the left foot to the back, 310 mm.

Number 3.—White. Born on the 8th of June, 1893, in the house of Mrs. Nieves Hernandez, at Cuevitas, Jurisdiction of Colon, Province of Matanzas, Cuba. The male progenitor was a pure white Guinea-fowl; the mother was a white hen. The two parents were confined together for three days. From an early age this hybrid showed a very bad temper, unlike ordinary chickens of the same age.

It drooped its wings and, when attacking an enemy, erected the long feathers of the tail; it also raised some of the feathers of the occiput when intimidated.

On dissection it proved to be a female, a circumstance which did not in the least mitigate its excitable temper. On the contrary, this individual was worse than the others, which, as stated, also had 'tempers of their own.'

Number 4.—Full-throated, hump-backed, and bandy-legged. Product of a bright cinnamon-colored game-cock and a bluish Guinea-hen. It was born on the 12th of April, 1892, on the estate 'San José,' of Dr. Martinez, who presented it to Dr. Damian Cuencia, whose son Cesar, a pupil of mine, was kind enough to give it to me, April 2, 1894.

Besides the deformity of the back and the right leg, it was full-throated, a trait inherited from the father. This circumstance, implying great energy of transmission, easily explains the greater development of feathers on the head, throat and neck. While showing the same undulating coloration as Nos. 1 and 2, it has a greater abundance of fine white spots, especially upon the back and tail. The first three primaries are white, the rest totally black. (Pl. XXV, Fig. 1.)

Number 5.—A dark specimen. It was presented to me on the 24th of March, 1894, by one of my pupils, Mr. Comesañas. It was born on his father's estate in Moron, on the border between the Provinces of Camaguey and Santa Clara, Cuba. It disappeared from my house, in the suburb of Havana, on the 12th of December of the same year.

Its plumage was variegated with very distinct, fine gray spots, with undulations similar to those of specimens Nos. 1, 2 and 4. The coverts were immaculate white, with a tendency to gray at the ends. It was called dark on account of its generally blackish coloration.

Number 6.—White specimen. Came into my possession from the same source and on the same date as No. 5. It died in August, 1894, during my absence, and when I returned it was found in such condition that dissection was impossible. I noticed that in coloration it differed from the other specimen in having the markings less undulating and more linear. It was called whitish on account of the generally light color of the plumage.

The general characteristics of this individual, and of specimen No. 5, were the same as those of the rest, as regards their dissimilarity in coloration, size, habits, etc., from their parents.

I will add, in conclusion, that these cases of hybridity are by no means rare in Cuba. Among others, I may mention examples obtained by my friend and colleague, Dr. Leopoldo Berriel, Dean of the Law Faculty of the University of Havana, at his estate 'Pozo Redondo', in Batabanó. I can also add to the full-grown specimens already described, the case of two chicks, both of the same brood, presented to me by my excellent friend Mr. Diego F. de Urra, in 1894. One of these differed considerably from the other. Its casque, the caruncles at the base of the bill, and wattles, were red. The other exhibited none of these peculiarities, but was similar to the specimens already described in this paper.

EXPLANATION OF PLATES XXV AND XXVI.

PLATE XXV.

Fig. 1.—*Gallus bankiva* ♂ + *Numida meleagris* ♀. Photograph from mounted specimen, No. 11,527, Am. Mus. Nat. Hist. Presented by Dr. Juan Vilaró.

Fig. 2.—*Gallus bankiva* ♂ + *Numida meleagris* ♀. Photograph from life.

PLATE XXVI.

Fig. 1.—*Gallus bankiva* ♂ + *Numida meleagris* ♀. Photograph from mounted specimen, No. 11,528, Am. Mus. Nat. Hist. Presented by Dr. Vilaró.

Fig. 2.—*Gallus bankiva* ♂ + *Numida meleagris* ♀. Photograph from mounted specimen, No. 11,529, Am. Mus. Nat. Hist. Presented by Dr. Vilaró.



Fig. 1.

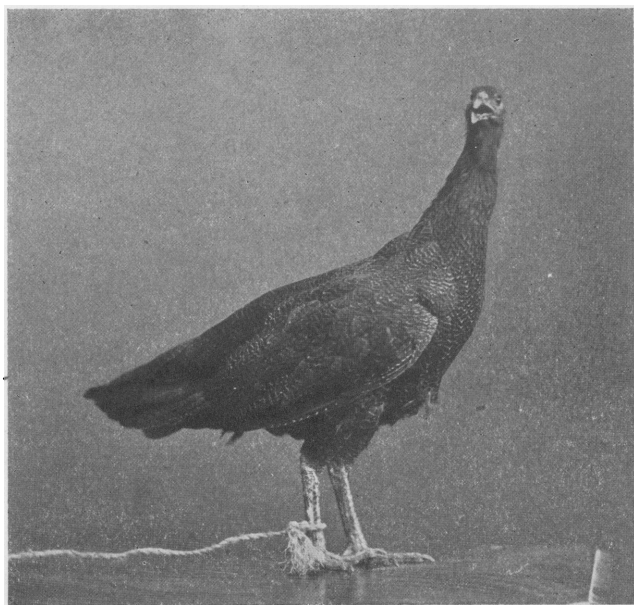


Fig. 2.

HYBRIDS BETWEEN GAME COCK AND GUINEA FOWL.



Fig. 1.



Fig. 2.

HYBRIDS BETWEEN GAME COCK AND GUINEA FOWL.

