

CASE REPORT

CHICKEN GUINEA FOWL HYBRID PRODUCED UNDER NATURAL MATING

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INTRODUCTION

There is renewed interest in traditional system of poultry (Village or Local Poultry) world over. Local poultry occupy a valuable economic and ecological niche in animal production. Their importance is reflected in their degree of adaptation, their wide distribution across ecosystems and their many uses. In Nigeria they are very valuable resources found across all agro ecological zones without exception and fulfilling an important socioeconomic role in the farming systems. They produce eggs, meat and poultry dropping (manure) and are closely associated with the poor, landless vulnerable groups (women and children) (Hamidu *et al.*, 2005). Throughout Nigeria, there exist a variety of family poultry. Of these the local chicken and guinea fowls are the most popular. Guinea fowl has wide distribution in Africa where it has distinct popularity among smallholder farmers. Its attractive plumage and value as a table bird with game-type flavour and high meat to bone ratio has led to its wide acceptance (Microlivestock, 1991). It is a common sight to see chickens and guinea fowls reared together under free range. When confined together, chickens and guinea fowl will interbreed occasionally and sometimes result in fertile eggs. Under experimental conditions the domestic fowl (*Gallus gallus domesticus*) have been crossed with Guinea fowl (*Numida meleagris*) and also with Ring-necked Pheasants (*Phasianus colchicus*). While the domestic Fowl x Pheasant hybrids have occurred naturally (Cutler, 1918, Serebrowsky, 1929; Yamashina, 1942; Asmundson and Lorenz, 1957). The Peafowl (*Pavo cristatus*) from Asia and the common Guinea fowl (*Numida meleagris*) from Africa have been crossed successfully (Serebrovsky, 1929). Most of such hybrids are mainly kept in museums and zoos for ornamental purposes.

KEY WORDS: Chicken Guinea Fowl Hybrid, Natural Mating, Nigeria

CASE REPORT

This report presents the first recorded case of local chicken (*Gallus gallus domesticus*) and guinea fowl (*Numida meleagris gallata*) hybrid "Kazazabuwa" at Billiri, Gombe State, Nigeria under natural mating. Guinea fowl eggs (10) from free-range managed guinea fowls were incubated by a local chicken along with some local chicken eggs (5) in September 2005. Some of the cockerels (3) were hatched were reared with some female guinea fowl keets (6) to the point of sexual maturity under free range in the breeding season of 2006 (May - September). The guinea fowl hen was repeatedly seen to be mounted by local

chicken cocks in the flock. The eggs laid were incubated by a broody hen it resulted that some of the eggs were fertile and the 4 off springs resulted were a unique hybrids. Three of the hybrids phenotypically resembled the cock (Plate 1) and one resembled guinea fowl keets (Plate 2). It is larger than the guinea hen and some what smaller than a turkey, but resembling a pea hen in size and looks (Plate 2). Towards the tail peculiar guinea fowl feathers were also noticed (Plate3). The hybrids all have unique beaks and claws somewhat similar to that of carnivorous birds such as eagles.

The incubation period of these hybrids were not monitored, but it has been reported in literature to be 25-26 days if they are phenotypically more like the guinea parent in which case survival rate is reported to be higher, on the contrary the incubation period of the hybrids that resemble the local fowl were reported to be 21-22 days as oppose to 21 and 28 days for hens and guinea fowl respectively. It has been reported that there is a lower probability of survival for those which more closely resemble the chicken (Feathersite, 2007).

No recent report of Chicken-Guinea fowl hybrids in Nigeria. Some selected Farmers (17) at Billiri that rear both guinea fowl and local hens in the same pens/ were interviewed they were not aware of such an occurrence.

All the four hybrids are presently alive and mainly kept under confinement, for exhibition and ornamental purposes at the Abubakar Tafawa Balewa University Teaching and Research Farm (Poultry Unit), Bauchi and also for further observation (mainly behavioural). They tend exhibit the unique guinea fowl sound and have feral tendency, in terms of fright and flight. Till date (July 2008) at the age of two none of the hybrid expressed any form of sexual activity i.e. lay eggs, yield sperms or even casually attempt mating other hens kept together, this confirms the fact that usually inter species hybrids are usually sterile (Cutler, 1918; Gray, 1958) with the exception of the unique Zebra Donkey hybrid (Zedonk or Zonkey) reported by Megersa *et al.* (2006) in Ethiopia.



Plate 1: Guinea fowl and hen hybrid



Plate 2: Guinea fowl and hen hybrid (closely resembling guinea fowl)

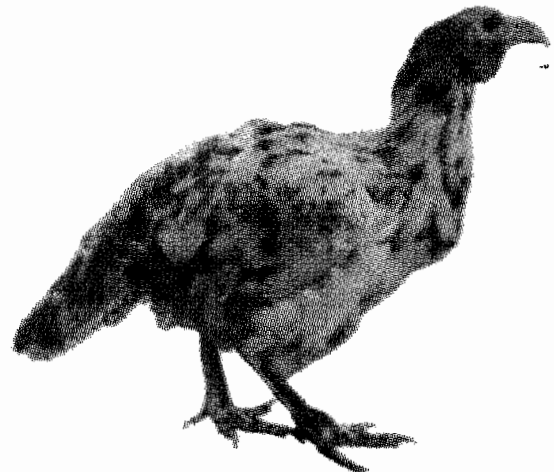


Plate 3: Guinea fowl and hen hybrid (closely resembling hen note the guinea feather plumage around the tail region)

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