

NOTES ON GUINEAFOWL AT THE AL WABRA WILDLIFE PRESERVATION (AWWP)

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Guineafowl have been domesticated and kept by humans for many centuries and are valued for their eggs and meat. They have also been used to warn owners about intruders using their alarm calls and also may serve as rodent repellents. Guineafowl may play an important role in controlling ticks (del Hoyo 1997) and although they have long been considered to be crop pests, this role has recently been reviewed based on examinations of stomach contents which show large numbers of insect pests (Raethel 1988). Guineafowl are still common in most localities; however, the Moroccan form (*Numida meleagris sabyi*) is disappearing in the wild (del Hoyo 1997, Hastings Belshaw 1985).

The call of the guineafowl is a characteristic sound of the African Savannah and serves as communication for these social birds that do not have fixed territories (Raethel 1988). In the breeding season a male will defend a fixed area around his incubating female or young. In the summer guineafowl are gregarious and will congregate in large flocks with new pair bonds forming each year. (Raethel 1988).

There are many geographical variations of wild helmeted guineafowl, in total more than 30 races have been described, currently 9 races are generally recognized (del Hoyo 1997). It is interesting to note that populations of helmeted guineafowl in Yemen and South Western Saudi Arabia, likely to have originated from introduced African guineafowl are consistently and distinctly different in appearance than any of the African forms (Paul Vercammen pers. Communication). The Somali race of the helmeted guineafowl (*Numida meleagris somaliensis*) also called Somali tufted guineafowl, is rather a distinct form, possessing a thick tuft of pale yellow waxy bristles over the cere (Fig. 1) a feature it shares with the Sudan race (*N. m. meleagris*) Other thick black bristles cover the nostrils and also form lavish eyelashes that most likely function as dust catchers. The Somali tufted guineafowl is considerably smaller than the familiar domestic guineafowl and the characteristic horn or casque is much shorter being almost flat. Only the tip of the long thin gape wattles are pink with the males having longer gape wattles than females; there is marginal difference in the casque between males and females. The calls are very similar to that of other helmeted guineafowl although somewhat lower in pitch and volume. Weights of adult Somali tufted guineafowl at Al Wabra have been recorded at 970 – 1085 g for females and 1210 – 1335 g for males. An incubation time of 23 – 24 days is normal for guineafowl. Chicks can fly rudimentarily within a few days of hatching and will follow their parents into the trees at night. In Somali tufted guineafowl, adult plumage has developed by 4 months although some streaks of brown remain, particularly on the head. It may take a year for the casque and gape wattles to fully develop. The Al Wabra Wildlife Preservation in Qatar has been maintaining Somali tufted guineafowl since 1999.

While keeping and breeding Somali tufted guineafowl has not been entirely straight forward in the hot dry climate of Qatar, they are a hardy species and best results have been achieved when the birds have had access to grass areas or have been free roaming. In unsuitable enclosures clutches have been reduced to single eggs.

The wild Somali tufted guineafowl at AWWP have remained wild and nervous even after several years in captivity. Some birds are maintained in breeding aviaries of 70 m² with one male for two females. While wild guineafowl are normally monogamous, the establishment of these "trios" is often an advantage in captivity as both females are normally laying fertile eggs and the male dividing his attention in a smaller aviary is not a major problem and may even counter aggressive interactions. However, the greatest breeding success was achieved in free-ranging birds under semi-controlled conditions. The birds would be released to grassland areas with scattered palm trees and thick bushes in spring and soon after would produce the first clutches of eggs. Supplementary feeding would be done within their breeding aviary which would be frequented almost daily. Due to high predator pressure, especially from desert foxes, parent rearing of chicks was not successful so eggs were pulled for artificial incubation and hand reared without major difficulties. More recently the Somali tufted guineafowl were housed in a large 2000m² free-flight aviary with thick ground vegetation in the hope that they will rear their own young.

The AWWP also maintains a large population of vulturine guineafowl (*Acryllium vulturinum*). The population roams freely within a 2.5 km² fenced area and is semi feral only occasionally being offered supplementary food. The population is estimated at 75 birds currently and due to their considerably

larger physical size the population withstands predator pressure from foxes somewhat better than the smaller Somali tufted guineafowl. At AWWP the rolling and pleasant calls of the vulturine guineafowl is a common sound that can be heard throughout the night.

The vulturine guineafowl has a distinctive powerful bill, no casque, contrasting black and white neck hackles as well as a bright blue breast and under parts. They are long legged with an elongated pointed tail and their display behaviours emphasize this as the birds stretch to their full height and show their sides to each other both in mating and territorial displays. The AWWP collection begins to display in March and pairs then start to separate from the non-breeding groups. Established pairs become quite secretive and for a time it becomes rare to see the vulturine guineafowl during the day. At night the pairs can be seen roosting together, but later this is replaced by single birds while the females incubate their clutches. The first chicks appear with their parents at the end of May. As the young become older some pairs may come together and raise the chicks in small groups of 4 – 6 adults with anything between 5 and 16 chicks of approximately the same age between them. In the late summer the birds that failed to breed will form groups of up to 15 birds. These will later be joined by the adults and their young as the latter begin to attain adult plumage. These wintering groups will typically contain around 70 birds and will then occupy different areas of the gardens.

Guineafowl are an interesting and attractive addition to zoo exhibits, and can coexist with species such as antelopes in mixed exhibits without causing any problems. However, there is still much that is unknown about helmeted guineafowl biology in the wild, in particular their social behaviour and development of the different geographical races.

References

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Adult male Somali tufted guineafowl at AWWP.
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Adult male vulturine guineafowl at AWWP.
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