

## **A record of a first year dark plumage Augur Buzzard moulting into normal plumage.**

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### **Introduction**

Melanistic Augur Buzzards *Buteo augur* account for at least 10% of most populations, and up to 55% in higher and more forested regions (Brown 1968, Kemp & Kemp 1998, Virani 2000). Personal observations in the Bale Mountains of Ethiopia, perhaps one of the highest altitude occurrences of all Augur Buzzard populations, does not show a marked increase in melanism, with some 16% recorded (6 out of 36 *pers. obs.*). Reasons for this prevalence remain speculative.

The established thought is that melanism in Augur Buzzards, as well as in all other vertebrates, is genetic and prevalent throughout life. But in some raptors this condition may not be shown throughout their lives. For example, despite presumably having a genetically pre-determined condition for melanism, a “melanistic” Black Sparrowhawk *Accipiter melanoleucus* shows either of two normal juvenile morphs (pale and rufous) and then moults into a melanistic adult (*pers. obs.*). There are no records of melanistic first year Black Sparrowhawks, and it is therefore doubtful if the adult condition should be termed melanistic but more correctly a “dark morph”. The terms melanistic and dark morph should not be interchangeable if the aetiology of these conditions is not clear. In the unusual single case description given below the term “dark plumage” and “normal plumage” is given to avoid committal to exact terms.

Among resident African raptors the Gabar Goshawk *Micronisus gabar*, Ovambo Sparrowhawk *Accipiter ovampo* and the Augur Buzzard have melanistic morphs in both juvenile and adult plumages (*pers. obs.*). The occurrence of melanism or dark morphs in first year plumage raptors in most African Bird Guide Books is poorly described (e.g. Kemp & Kemp 1998, Mackworth-Praed & Grant 1981, Zimmerman *et al.* 1996, Stevenson & Fanshawe 2002); although these juvenile morphs are well described elsewhere in USA and Europe, Middle East and North Africa (Wheeler and Clark 1995, Clark 1999).

It is possible to identify a melanistic Gabar Goshawk and Ovambo Sparrowhawk chick the moment it is hatched, and an Augur Buzzard chick is easily distinguishable in at least its second downy stage. Both the Gabar and Ovambo melanistic chicks, and later in their adult life, show freckled patches of dark skin on the toes inferring that they are truly melanistic (*pers. obs.*). In the National Museums of Kenya there is one specimen of a first year, apparently melanistic African Goshawk *Accipiter tachiro* and melanism in adults is described as the cause for dark plumaged birds. (Brown & Amadon 1968, Zimmerman *et al.* 1996, Kemp & Kemp 1998, *pers. obs.*). I have observed first year and adult dark plumaged Ayres's Hawk Eagles *Hieraaetus dubious* in Kenya, despite both being said not to occur locally (Zimmermen *et al.* 1996). These records infer that these individual species that show melanism have dark plumages in all age groups. In some melanistic Black Sparrowhawks and Augur Buzzards there are apparently intermediate plumages between pale and dark morphs that show white on the chin and sometimes to the lower throat, mid-chest and undertail coverts. These plumages and their causes are not entirely understood and poorly described for African raptors.

### **An atypical plumage in an Augur Buzzard.**

The following is a description of an apparently dark plumaged juvenile male Augur Buzzard that moulted into a normal (pale) plumaged adult. This dark plumaged juvenile had a severely fractured wing and was kept in the Nairobi Animal Orphanage for 3 months until June 2004, when its

wing was amputated. It had been a flying juvenile of at least a couple of months within the Nairobi area before the fracture occurred. Attempts to remove the dark pigmentation from individual feathers with solvents (surgical spirits, petrol, detergents. etc.) failed. Its free-living history and “fixed” permanent colouration indicate that neither dietary deficiency, disease (e.g. dark plumage in pigeons with tuberculosis – Cooper 1968) nor external colouration were the cause of this dark pigmentation. In Sept 2004 it started to moult contour feathers, replacing dark feathers with white on the throat and upper chest (transition seen from Figure 1 and 2). This contour moult may begin at 9-12 months in Augur Buzzards (*pers. obs.*) and therefore it may have hatched in Sept- Dec 2003. One atypical feature in an otherwise apparently normal “melanistic” individual was the lack of obvious black and white barring that is normally visible on the secondaries on the upper side of the folded wing on both normal and melanistic morphs. The bases of the primaries and secondaries, and the intervening gap between the dark bars on these feathers are always white, irrespective of dark or normal morphs. But as can just be seen in Figure 2, and in the moulted secondaries in Figure 3 these areas are of dark hue. The tail feathers were normal (pale brown first year, red ochre 2<sup>nd</sup> year) in its juvenile and adult plumages. There is no discernible difference in tail colour between melanistic and normal morphs in both juvenile and adult age groups. The hue of the dark areas on the entire contour and flight feathers was unlike the dark brown/black of most melanistic adults, and is better described as dark grey. Environmental bleaching almost certainly was responsible for lightening the under-tail and belly. As the chest lightened over the year, irregular dots emerged on the middle chest, which are just visible in the Figure 3. By 18 months old the Augur Buzzard had moulted out almost all its feathers and emerged in ‘normal’ plumage. In Figure 4 the bird is estimated to be about 3 years old, and has moulted out most of its 2<sup>nd</sup> year adult feathers and attained the ‘normal’ morph adult.



Figure 1 & 2: Dark plumaged juvenile Augur Buzzard (left). The same Augur Buzzard after its first contour moult at 9-12 months (right).

This individual was not truly ‘melanistic’, nor for that matter can it be described as a dark morph. It could best be termed a ‘Sooty Phase’, as yet undescribed for this species. ‘Phase’ implies a transitional condition, and ‘Sooty’ more correctly describes the appearance.

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Figure 3: Moulded secondaries of the Augur Buzzard.



Figure 4: The Augur Buzzard in adult plumage at about three years old.