

AGEING OF VULTURES

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Abbreviations:

- C..... Cape Vulture Gyps coprotheres (R 106)
WB.... White-backed Vulture Gyps africanus (R 107)
LF.... Lappet-faced Vulture Torgos tracheliotus (R 108)
WH.... White-headed Vulture Trigonoceps occipitalis (R 109)
H..... Hooded Vulture Necrosyrtes monachus (R 110)

All five species can be fairly easily divided into two main categories of adult and immature. There is a basic progression in all species of parts of the plumage turning white or going pale at adulthood. Adulthood, as defined by plumage characters, does not necessarily correspond with sexual maturity, as defined by breeding. It is probable that all the species do not reach adulthood for a good many years (e.g., six years in WB, Houston).

As far as the NUBRA ageing system is concerned, I code an adult or subadult bird as 8 (ie 'After 3rd years') and an immature as code 2 (ie 'Full-grown but age otherwise unknown'). On occasions I can recognise fledglings, especially in WB and H, and these are then coded as 3 (ie 'First year').

However, it is possible to be more precise with at least four of the species and, while not ageing them in terms of years, any particular bird can be coded according to a few plumage characters. When (hopefully) plumage changes can later be related to age in years (from observations on captive birds, for example, (in preparation)), the plumage description taken at the time of capture can then be correlated with a probable age in years. Two reasons why it is worth attempting to age birds according the state of their plumage are that the different age classes within a species may have different foraging patterns, and further the age at breeding can be estimated.

Two tables are presented - the first for use in ageing birds for NUBRA codes, and the second for compiling a full description of a bird for future ageing when that species' plumage changes have been worked out.

TABLE 1

APPROXIMATE AGE CLASSES OF VULTURES

(* Indicates key character)

<u>Species</u>	<u>Adult</u>	<u>Immature</u>	<u>Other</u>
Cape	Yellow eye* White contours "Powder-puff" ruff Blue head & neck	Brown eye Streaked contours Lanceolate-feather- ed ruff Grey head, pink neck	Some adults have a white back (perhaps very old birds)
White- backed	White back* Plain contours Powder-puff ruff Black head & neck	Brown back Streaked contours Lanceolate ruff Green neck & part of head	Subadults have a few brown feathers on the white back. Fledglings have all the contours very conspicuously streaked
(Capes and White-backed are often difficult to separate. Mundy (1973) gives identification characters)			
Lappet- faced	White down on legs* White bar along underwing arm Blackish plumage Plain mantle	Brown down None Brownish plumage Mantle dappled with white	
(I am not yet sure of all the criteria in this species - see Sauer, 1973, p. 46)			
White- headed	White down on head & crop* White abdomen & inner secondaries Upperwing coverts with white edges Black & white plumage	Black down Varying amounts of white Plain coverts Black & brown	Sub-adults seem to have a white head, peppered with black
Hooded	Buffish-white down on head & crop* Plain contours	Black down Edged with white	Fledglings have a brown tarsus, other have pale blue tarsus

TABLE 2

Plumage characters possibly useful in ageing

- C. Eye colour; type of ruff; head & neck colour; colour of contours; underwing pattern (ie presence/absence of black spots on last row of coverts, pale vanes on secondaries, dark line on tips of secondaries - generally, but not invariably, the presence of these three underwing characters is an adult feature)
- WB. As for Cape, but eye colour does not change; colour of back.
- LF. General plumage colour; colour of down on legs and around crop; eye colour; colour of mantle; size & shape of ruff feathers; amount of down on head; presence/absence of white line along underwing arm.
- WH. General plumage colour; colour of down on head & crop; colour of abdomen & inner secondaries; eye colour; colour of upperwing coverts; colour and amount of down on throat; size of ruff.
- H. Colour of down on head, neck & crop, colour of body contours; colour of tarsus; eye colour; colour & size of ruff.

Some birds show unusual coloration - eg a WB I caught had a rufous tinge to all its feathers (probably from the soil), and another was strikingly black and white. Such birds, and a representative sample of all the others, could be colour-photographed for comparison with other workers' photos from elsewhere, and in order to set up a library of slides for all species of vultures showing their changing plumage characters and the range of variability.

REFERENCES.

- HOUSTON, D.C 1974. Mortality of the Cape Vulture. Ostrich (in press).
- MUNDY, P.J. 1973. On the Cape and White-backed Vultures. Honeyguide 76: 10-17.
- SAUER, E.G.F. 1973. Notes on the behaviour of Lappet-faced Vultures and Cape Vultures in the Namib Desert of South West Africa. Madoqua II(2): 43-62.