SHORT COMMUNICATIONS, NOTES AND REPORTS

Lappet-faced Vultures with white feathers

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Two different Lappet-faced Vultures *Torgos tracheliotos* with remarkable white feathers over their bodies are seen...

Lappet-faced Vulture *Torgos tracheliotos* with very pale plumage, photographed in the Serengeti. Photograph courtesy of Cysty Massay.

There are many mutations that can cause a change in plumage pigmentation and therefore an aberration in colour. Identifying mutations in the field can be extremely difficult because for a proper identification it is often necessary to examine small details of the aberrant coloured plumage. However all kinds of colour names are seemingly randomly used, now and in the past, to identify mutations in birds.

Most commonly, and most often wrongly, applied is the name Albino or Partial Albino. This name is widely used for all sorts of different colour aberrations, but in only a few percent of the cases it is used correctly. Due to the mutation, an Albino is unable to produce melanin pigments at all. A mostly white bird which nevertheless shows some form of melanin pigmentation is never an Albino, by definition. Therefore, a Partial Albino does not exist and is a contradiction in terms.

This latter name is often used for what is in fact Leucism. Leucism, from the Greek *Leukos* = white, can be defined as the partial or total lack of pigments in feathers (and skin). The lack of pigment is due to the congenital and heritable absence of pigment cells from some or all of the skin areas where they are normally present and where they normally provide the growing feather with pigment. Depending on the sort of leucism the amount of white feathers can vary from only a few white feathers (= partial leucistic) to totally white individuals. The totally white individuals always have colourless skin as well. Partial leucistic birds can have a normal-coloured bill and feet depending on where the colourless patches occur on the specimen. However leucistic birds always have normal coloured eyes. The white pattern in leucistic birds is often symmetrical due to the way the pigment cells migrate from their embryonic origin into the rest of the body and therefore, hence to the mutation, certain areas of the body are now not provided with pigment cells.

However there are other causes for pigmentless feathers. Whereas leucism is congenital, vitiligo (also called progressive greying), for example, is a progressive condition that arises after a certain age. Vitiligo is defined as the heritable progressive loss of pigment cells with age. From a certain age, when the progressive loss starts, the bird will get more white feathers after every moult. Normally the white feathers are randomly spread all over the bird.

Last but by no means least, external, non-heritable factors can be a reason for loss of pigment. Poison or food deficiency are the main ones, and the pigmentation most of the time will become normal as soon as the external cause is taken away.

Looking at the pictures of these two birds, progressive greying seems to be the most plausible cause of the white feathers. It would be interesting to follow these birds and see if the plumage indeed becomes whiter with age.