

First Case of Albinism in Egyptian Vultures

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FIRST CASE OF ALBINISM IN EGYPTIAN VULTURES

KEY WORDS: *Egyptian Vultures*; *Neophron percnopterus*; *albinism*.

Albinism is caused by a mutation in genes that interfere in the expression of the type and concentration of a pigment (i.e., melanin). In birds, this alteration causes the absence of color in the feathers and other body parts (Buckley 1982) and occurs at a very low frequency (Beltzer 1984). Due to the lack of melanin production in both the retinal pigmented epithelium (RPE) and iris, albinos typically have red eyes. In contrast, other alterations in the plumage pigmentation, such as leucism, result from defects in pigment cells in the feathers during development. Leucistic animals have normally colored eyes (Van Grouw 2006). This condition is more common in nature and leucism has been widely recorded among birds (Garrett 1990, Dowding 2003) from passerines (Sage 1962, Bensch et al. 2000 and references therein) to raptors (Clark and Leshem 1988, Eakin 1994, Ellis et al. 2002). It has recently been reported in vultures, including an Andean Condor (*Vultur gryphus*) in central Chile (Pavez 2008).

Here, we report the first record of albinism in the Egyptian Vulture (*Neophron percnopterus*), a medium-sized facultative migrant scavenger widely distributed throughout the Mediterranean region, the Middle East, southern Asia, and eastern Africa (Donázar 2004, BirdLife International 2007). European populations of Egyptian Vultures have declined in recent decades (Tucker and Heath 1994, Cortone and Mordente 1997, Del Moral and Martí 2000, Iñigo et al. 2008). Currently, the species is considered globally endangered (BirdLife International 2007).

According to Cramp and Simmons (1980), adult Egyptian Vultures, both males and females, exhibit the following characteristic coloration: “all body, tail and upper secondary and all under wingcoverts, lesser primary co-

verts, and axillaries white; underparts and ruff of long and narrow feathers on hindneck and sides of neck often sullied pale grey, or brown by dirt. Primaries, greater primary coverts, and bastard wing [alula] black or stained whereas secondaries are pale grey with black tips, inner webs, and bases. The bill and claws black and cere and bare skin of face and throat lemon-yellow to bright orange-yellow or orange-red.” Also according to these authors, juveniles show “mantel, back and scapulars off-white to tawny-brown with broad black bases to feathers. The cere and skin of face and throat dark grey or livid-grey” (Fig. 1).

On 20 July, 2009, we were monitoring the breeding success of Egyptian Vultures in the Bardenas Reales Natural Park in northern Spain. This is one of the most important breeding areas for the species in western Europe, containing up to seven pairs/km² (see Cortés-Avizanda et al. 2009 for details). In one of the monitored territories, which has been occupied permanently from 1986 until the present, we found a nest with a single nestling ca. 54 d old (length of the 7th primary = 240 mm; see Donázar and Ceballos 1989 for age-criteria). The near-fledgling had white plumage on all body, tail, upper secondary and all underwing coverts, lesser primary coverts, and axillaries. It presented a few pale brown feathers in the neck, upper primary wing coverts and some coverts (Fig. 1). Its bill and talons were also white and its eyes red. The face was slightly pink as opposed to gray (see above). The near-fledgling weighed 1850 g; its body mass was near the mean values observed for other fledglings of this population (A. Cortés-Avizanda unpubl. data).

Since 1986, we have monitored a total of 577 fledglings in the Egyptian Vulture population of Bardenas Reales and in the rest of the Ebro Valley (Grande 2006, Cortés-Avi-

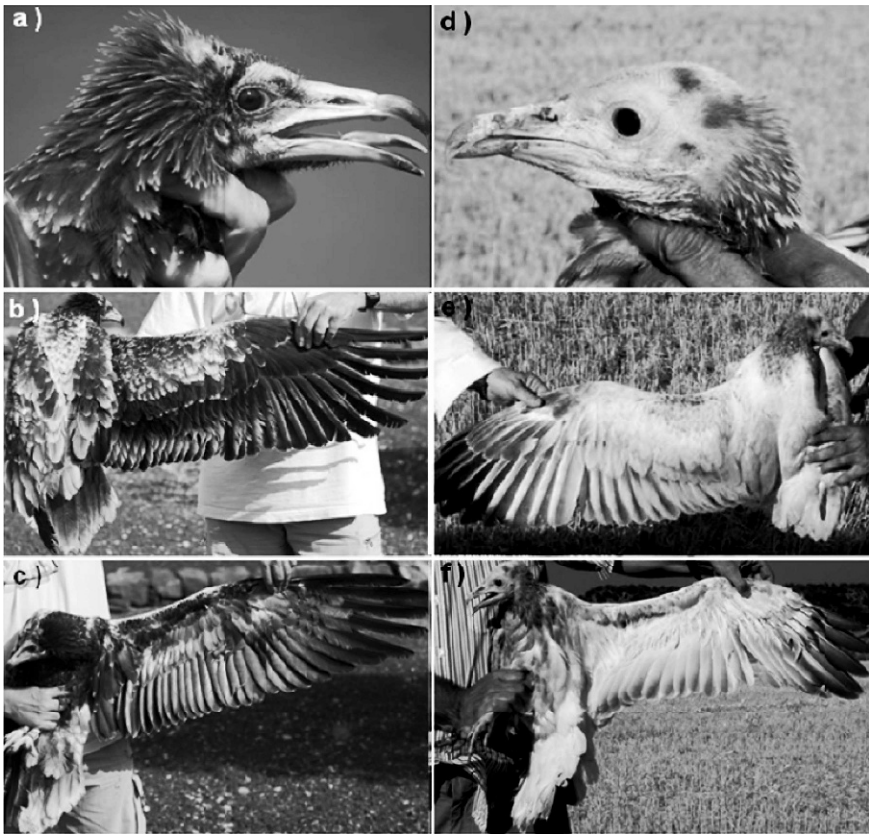


Figure 1. (a, b, c) Fledgling Egyptian Vulture with typical coloration; (d, e, f) Albino fledgling found in a breeding territory of the Bardenas Reales Natural Park, northern Spain.

zanda et al. 2009, Grande et al. 2009; A. Cortés-Avizanda unpubl. data). We have never observed other albinistic individuals. No cases have been reported for other populations monitored long-term in Spain (Donázar et al. 2002, Benítez et al. 2004, García-Ripollés and López-López 2006, Blanco et al. 2007, Zuberogoitia et al. 2008, Mateo-Tomas and Olea 2009) or in other parts of Europe (Liberatori and Penteriani 2001, Sará et al. 2009, Razin 2009). Although our report is anecdotal, it may be useful to future reviews exploring the prevalence of albinism in the wild.

Oscar Ursúa helped with the fieldwork. We thank M. de la Riva for the photos. Roger Jovani, Pim Edelaar, Guillermo Blanco, and Fabio Liberatori made helpful commentaries on previous versions of the manuscript.—**Ainara Cortés-Avizanda** (e-mail address: ainara@ebd.csic.es), Department of Conservation Biology, Estación Biológica de Doñana, CSIC, c/. Américo Vespucio s/n, 41092 Sevilla Spain; **Olga Ceballos**, Estación Biológica de Doñana, CSIC, Equipo Seguimiento de Procesos Naturales, c/. Américo Vespucio s/n, 41092 Sevilla, Spain; **Alejandro Urmeneta**, Parque Natural de Bardenas Reales de Navarra, c/. San Marcial 19, P.O. Box 8084, 31500 Tudela Spain; and **José A. Donázar**, Esta-

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