

PARTIAL ALBINO TURKEY VULTURES (*CATHARTES AURA*) IN THE ISLAND OF CUBA

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Albinismo parcial en Aura Cabecirroja (*Cathartes aura*) en la isla de Cuba.

Key words: Turkey Vulture, *Cathartes aura*, Cuba, partial albinism, raptors.

INTRODUCTION

Albinism and partial albinos are the most documented color aberrations in animals, but are a rare disorder. In the wild, most records of albinism are in birds (about 400 species; Gross 1965, McCardle 2012). Total albinism in birds is a rare abnormal condition in which all the feathers, bill, cere, talons, and eyes are without melanins (e.g., Sheffield 1992, Delord *et al.* 2012), caused by genetically determined absence of enzyme tyrosinase (Fox & Vevers 1960). Partial albinism is more common and occurs when pigment is reduced or absent from the skin, feathers, or eyes (e.g., Cortés-Avizanda 2010, Tinajero & Rodríguez-Estrella 2010). Feathers can be partially white and partially typically colored or wholly white

(Clark & Wheeler 2001). Eyes, cere, and bill colors are usually normal, but talons may be ivory (more information on these definitions can be found elsewhere, e.g., Gross 1965, van Grouw 2006). The abnormal conditions in pigmentation can then be due to genetic mutations (Sage 1962, Møller & Mousseau 2001).

Abnormal raptors have been observed in different regions (McConnell *et al.* 2007, Pavez 2008, Cortés-Avizanda 2010, Edelaar *et al.* 2011, Nogueira & Alves 2011). Partial or totally white Turkey Vultures (*Cathartes aura*) have been recorded mainly in continental ecosystems (e.g., Robinson 1888, Jones 1933, Gross 1965, Voelker 1976, Sheffield 1992, Tinajero & Rodríguez-Estrella 2010), and much less in islands (e.g., Gundlach 1891, one individual entirely white, and another specimen with white spots intermixed in Cuba;

Figueroa *et al.* 2011, two individuals entirely white; IBC 2014, individual with some white feathers). Here, we report two recent records of partial albinism in Turkey Vultures from the island of Cuba.

OBSERVATIONS

On 17 February 2012, a partial albino Turkey Vulture was observed for ca. 45 min (22°2'1.03"N, 78°7'41.82"W) in Nueve de Manga Larga locality, Ciego de Avila province, in a cattle pasture area with few ranches. The albino bird was observed at 13:10 h, soaring with six other Turkey Vultures. The bird was observed later feeding on cattle carrion along with other Turkey Vultures. This atypical bird seemed to be dominant over the other birds as it aggressively displaced them from the carrion. The head of the albino Turkey vulture was pink and the neck and tail white. Some primary and all secondary feathers were white. The left wing was half white and also had several white coverts (Figs 1A, 1B; compare with regular morph, 1C).

A second partial albino Turkey Vulture was observed during a raptor survey on 16 May 2012, in the Cuito locality (22°13'9.34"N, 78°23'33.72"W), a natural habitat with very low human disturbance. This site is located 34 km from the location of the first albino recorded. The partial albino bird was observed for 25 min foraging with five Turkey Vultures in a mangrove habitat starting at about 11:52 h. The bird had 70% of the primary and secondary feathers white on the left wing (no picture was taken).

DISCUSSION

We have been studying raptors in a province of Cuba for the last two years, in natural and human-transformed areas including mangroves, forests, coastal vegetation, swamp-marsh grasslands,

lagoons, agriculture areas, cattle pastures and urban areas. We were especially cautious to detect any abnormal colored raptor during our surveys. Thus, the frequency of occurrence of albino birds was very low accounting for two records in the 10,994 sighted raptors, 84% of which were Turkey Vultures, in already 1183 km of roadside surveys and 413 h of observation in fixed count points. This plumage aberration in birds rarely reaches more than 1% of all individuals in a particular species (Sage 1962).

At the present time, there are some controversial hypotheses about the survival of albinos in the wild. Tinajero & Rodríguez-Estrella (2010) consider that albino raptors may have a poor/reduced potential to survive as has been suggested for other bird species (Møller & Mousseau 2001, van Grouw 2006). However, McCardle (2012) hypothesized that albino vertebrates are able to survive in the wild although at a disadvantage by physical effects of albinism in comparison to normal-pigmented individuals. Under particular conditions, their white color may be even advantageous and aid in their survival (e.g., Whitford 1993, Edelaar *et al.* 2011).

Besides our records, only one anecdotal report of an albino Turkey Vulture was made several consecutive years since 1980 in Alto Cay, north of Ciego de Avila province (A. Espinosa pers. comm.). Because albinism could be the result of inherited genetic abnormalities, we expected this abnormal coloration could be more frequent in Cuba finding more albino individuals in the wild than under continental conditions. In an insular environment, birds are more isolated and concentrated than in continents, thus densities could be higher (MacArthur *et al.* 1972, Blondel *et al.* 1988) and the frequency of anomalies could be high too. Our data show that partial albinism in Turkey Vultures is an uncommon trait in the island of Cuba. For instance, before our



FIG. 1. Turkey vultures in the island of Cuba showing both partial albino coloration and typical coloration. A) Adult partial albino on the ground; B) Adult partial albino flying; C) Adult with typical coloration.

report only very few abnormal coloration cases had been reported for other Cuban birds (Gundlach 1891, Acosta 2005). These records can be used in the future to monitor the prevalence of albinism in birds of Cuba.

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