

incidence of illegal persecution. It is notable that areas with a history of persecution in northern Scotland have yet to be recolonised.

Keywords: breeding: success, population: trends.

---

## **Conservation Status and Limiting Factors of the Endangered Population of Egyptian Vulture (*Neophron percnopterus*) in the Canary Islands**

*César J. Palacios*<sup>1</sup>, *Laura Gangoso (\*)*<sup>1</sup>, *Olga Ceballos*<sup>1</sup>, *María J. González*<sup>2</sup>, *Fernando Hiraldo*<sup>1</sup> & *José A. Donázar*<sup>1</sup>

(1) Department of Applied Biology, Estación Biológica de Doñana, C.S.I.C., Avda M<sup>a</sup> Luisa s/n, 41013 Seville, Spain (2) Department of Instrumental Analysis and Environmental Chemistry, I.Q.O., C.S.I.C., Juan de la Cierva 3, 28006 Madrid, Spain.

Egyptian Vulture populations have sharply decreased in the Western Palearctic; island populations are almost disappeared from the Mediterranean and the Macaronesian regions. In the Canary archipelago, the species only subsists in the islands of Fuerteventura and Lanzarote. During 1998-2000 we examined genetic aspects, population parameters and potential limiting factors of this isolated and sedentary population. All the population (breeding and non-breeding birds) was annually monitored. In addition, 26 fledglings and 33 immature (<6 years old) and adult birds were captured for individual marking with plastic rings. Twenty-three/twenty-four occupied territories were located in the island. Total population was estimated in around 130 birds. Breeding success was lower than those known for the rest of the species' distribution area: only 0.43 fledglings/pair/year were produced. Adult (>6 years old birds) and immature annual survival rate was similar, around 90%. Adult survival was lower than expected as territorial birds seem more susceptible to poisoning. Immature survival could be favoured by the existence of regular feeding places. Casualties in power lines was the main cause of mortality (12 cases during the study period). Blood sampling revealed high frequencies of lead poisoning: 13.5% and 2.7 % of individuals showed sub-clinical and clinical intoxication levels respectively, probably caused by the ingestion of lead bullets. Priority conservation measures should be directed to reduce electrocution risks, illegal poisoning, and lead contamination. Population reinforcement with birds coming from other populations is not recommended as morphology, analyses of mtDNA control sequences and allele frequencies at microsatellite loci revealed that the Canarian population of Egyptian Vultures is clearly different from other western Palearctic populations. A subspecific status for this population is proposed.

Keywords: breeding success, electrocution risk, poisoning, Spain.

---