

THE EURASIAN BLACK VULTURE AND ITS EEP CHALLENGES IN CAPTIVE BREEDING AND REINTRODUCTIONS

Planckendael

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Aegypius monachus,
Eurasian Black Vulture

CONSERVATION ACTIONS

- 1987 European Endangered species Programme initiated by Black Vulture Conservation Foundation (BVCF) and European Association of Zoos and Aquaria (EAZA)

STRUCTURE

- operated autonomously by EAZA
- zoos constitute vast majority of participants
 - zoos elect species committee
- EEP managed at Planckendael Animal Park by studbook coordinator **Marleen Huyghe**
- co coordinator E. Tewes, scientific advisor K. Wolfram



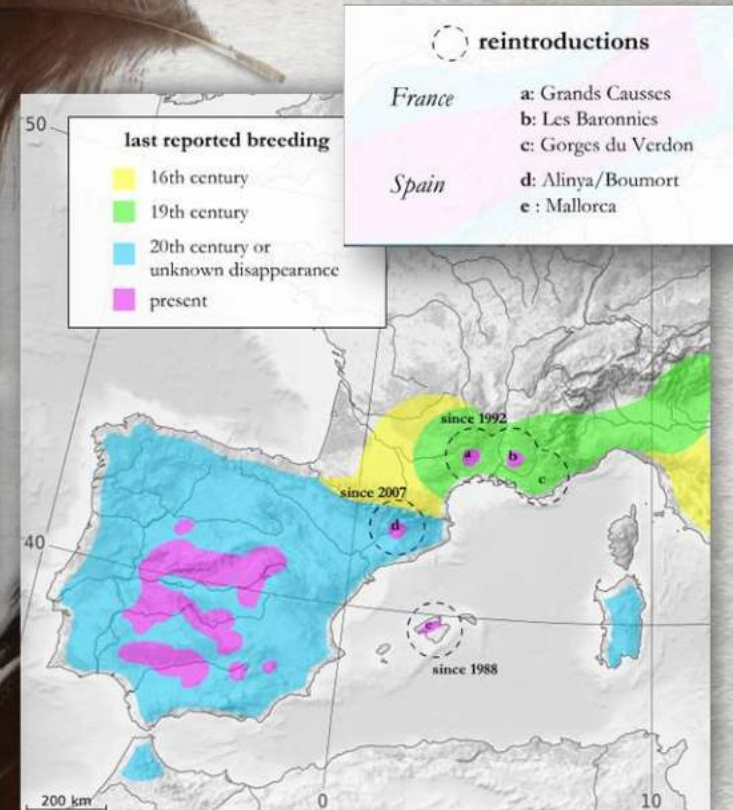
OBJECTIVES

(I) conservation *ex situ*

(maintenance of self-sustaining, genetically diverse captive population in European zoos and institutes)

(II) re-establishment *in situ*

(generation of "surplus" captive-born young to be released into historical natural habitats)



EEP: THE CHALLENGE OF EBV CAPTIVE BREEDING

BREEDING BIOLOGY

long lifespan, monogamous(?)
late sexual maturity
long reproductive cycles
profound bi-parental investment

in situ

wild-born wild

HATCHING SUCCESS

79% (Skartsi *et al.*, 2008)

152 eggs, 1994-2005, Greece

90% (Hiraldo, 1983)

103 eggs, 1973-1977, secluded Spain

BREEDING SUCCESS

69% (Skartsi *et al.*, 2008)

193 eggs, 1994-2005, Greece

75% (Moran-Lopez *et al.*, 2006)

520 eggs, 2000, Spain

90% (Hiraldo, 1983)

103 eggs, 1973-1977, secluded Spain

ex situ

wild-born captive & captive-born captive

(Wolfram *et al.*, in prep.)

1980 - 2012, 503 eggs, 72 breeding males,
77 breeding females, 86 breeding pairs

HATCHING SUCCESS

32.4%

BREEDING SUCCESS

21.7% (> 30 d)



reintroduced

wild-born wild & captive-born wild

HATCHING SUCCESS

67% (LPO, 2010/11)


153 eggs, 1996-2010, Grands Causses

BREEDING SUCCESS

59% (LPO, 2010/11)

153 eggs, 1996-2010, Grands Causses



The background of the slide is a light-colored, textured surface, possibly paper, with several dark brown feathers scattered across it. The feathers are of various sizes and orientations, some pointing towards the top and others towards the bottom.

DRAFT ACTION PLAN EBV EEP (2013-2016)

CURRENT ACTIONS

FUTURE ACTIONS

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CURRENT ACTIONS

identification of **PROBLEM PAIRS** (2012)

FOCUS

LONG-TERM unsuccessful (past 5 years or more)

large **AGE** differences, old **AGE** of partner(s)

recommendations for **NEW PAIRS** (2012)

follow-up pair bonding **BEHAVIOR**

sex bias (**MALE DEFICIT**, 9 - 19 years)

recommendation for suspension **REINTRODUCTIONS**

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INSTITUTE LEVEL

HUSBANDRY conditions
(checklist, questionnaire, personal visits by expert[?])

SPECIAL FOCUS

breeding failure due to **DISTURBANCE**

pair **BOND** quality

participants with scarce **COMMUNICATION**

suitability of captive **NESTS**

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EEP LEVEL

improve **COMMUNICATION**

revision and distribution husbandry **GUIDELINES**

INTRODUCTION letter for new members

GENETIC sampling and sexing

solve contract issues with **NON-EAZA PARTIES**

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EEP-BVCF/VCF INTERFACE

improve *in situ* follow-up of EEP-born
REINTRODUCED EBVs

improve contacts to revalidation **CENTERS**,
help with **IMPORT** of males

examine need/feasibility for
BREEDING CENTERS

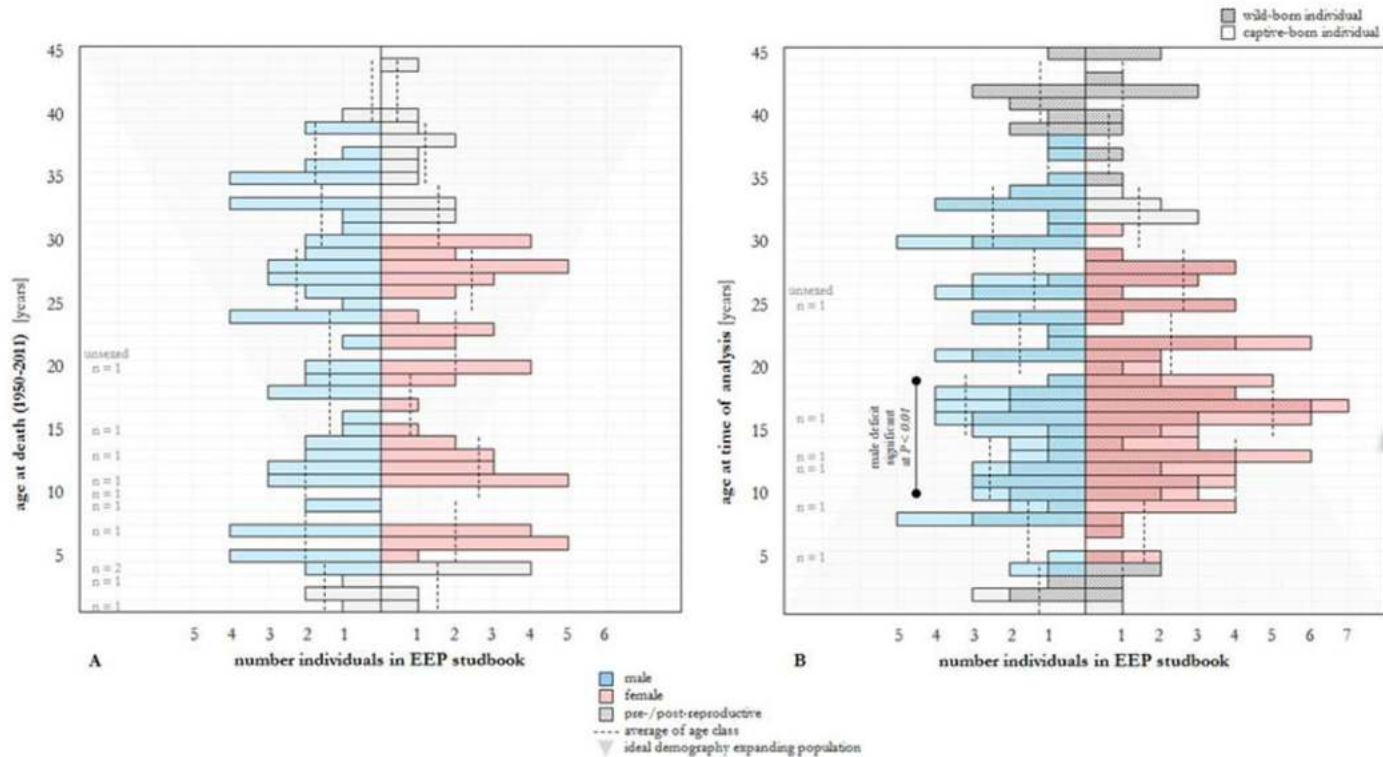


Figure 4: Signature of population contraction in the *A. monachus* captive population. Reproductive (colored; male: blue, female: rose) and non-reproductive phases (grey) are indicated, as well as number of unsexed individuals. Dashed lines represent average number of individuals per age class of 5 years in either sex. Grey background indicates distribution pattern expected for an expanding population, deviation from which argues for population decline.

A: Longevity in the EEP studbook population in the period of 1950-2011 (total records analyzed: males $n = 70$, females $n = 72$, unknown sex $n = 11$), high early chick mortality within the first 30 days excluded.

B: Composition of the living EEP studbook population at time of analysis (males $n = 84$, females $n = 100$, unknown sex $n = 6$) depicted as conventional age pyramid. Patterned bars represent wild-caught (male $n = 61$, female $n = 74$), blank bars represent captive-born individuals. For age classes 10 to 14 years and 15 to 19 years a significant male deficit is evident.

EVP: THE CHALLENGE OF EBV CAPTIVE BREEDING

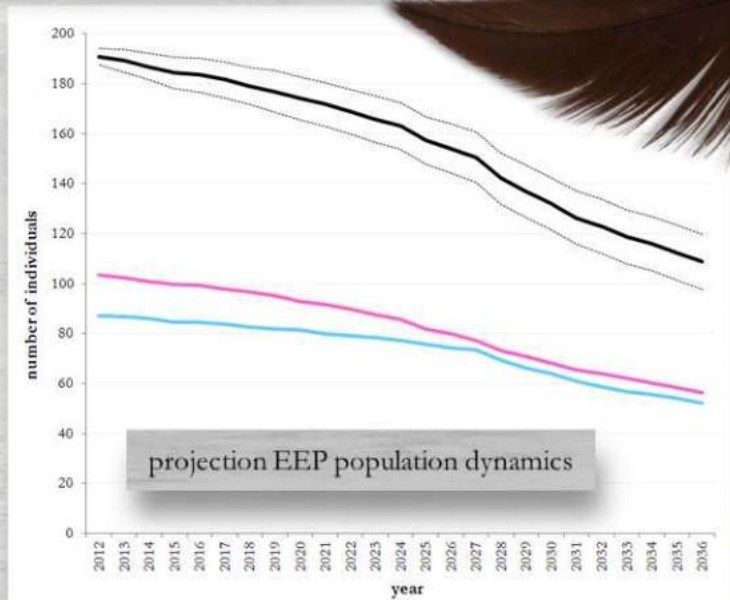
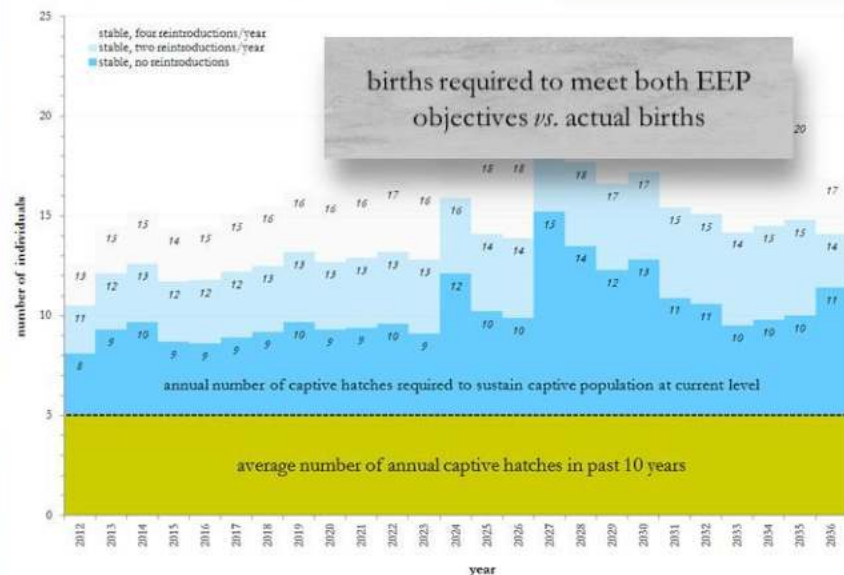
Aegypius monachus captive breeding

ex situ wild-born captive & captive-born captive

RECOMMENDATION

captive-born young **required** to sustain captive population at current size over the next 25 years **exceeds** number of actually **produced** young
situation worsens by giving young for release!

reintroductions from EEP to be **suspended** until demographic trends stabilized



HOW CAN ALL SIDES SUPPORT EACH OTHER

EBV EEP

provide **CAPTIVE-BORN YOUNG** for releases

in general:

all young following **3RD OFFSPRING** of a pair could be
RELEASE CANDIDATES

possible additional release candidates before 4th young:
to be decided on **INDIVIDUAL BASIS** for each
breeding pair/young each year

GREFA

provide older **ADULT MALES** for EEP captive breeding

LPO

improve **COMMUNICATION** on captive-born released birds
Provide samples of released birds for EEP scientific work

... and exchange of **EXPERTISE**