

# African White-Backed Vulture

*Gyps africanus*

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## Species Status

**IUCN:** Critically Endangered

**ESA Status:** Not Listed

**CITES:** Appendix II

**TAG:** Raptor TAG

**AZA SSP DESIGNATION:** Red

**GEOGRAPHIC REGION:** Africa

**BIOME:** Chaparral / Scrubland, Forest: Deciduous, Grassland, Mountain, Savanna

## EXHIBIT DESIGN AND MANAGEMENT

### HUSBANDRY AND CARE

SPECIAL EXHIBIT CONSIDERATION	
<b>Outdoor Climate Conditions:</b>	housed outdoors at temperatures above 40F; indoor access to shelter and radiant heat in temperatures below 20F; outdoor housing in temperatures above 90F tolerable with cooling misters; adequate shade and shelter from rain and snow always available; colder northern climates need to be indoor lock-in capacity (e.g., hoofstock barns)
<b>Substrate:</b>	dirt, sand, grass, rock and large tree deadfall; minimize bare concrete flooring by covering with dirt, sand, wood chips, bark chips; minimize use of mulch or other composting material to reduce fungus potential
<b>Indoor Conditions:</b>	not held indoors year-round, but overwintered indoors in cold climates; temperature range 50-80F; full-spectrum lighting and intensity, with natural photoperiod; minimal hay and dust indoors
<b>Ideal Carrying Capacity:</b>	at least one pair or two compatible same-sex adults; 20 or more individuals may be housed together, given sufficient space and expertise
<b>Size of Space:</b>	minimum space 25' x 40' x 15' (1000 sq ft) for single pair, with or without offspring; proportionally larger for multiple pairs or mixed groups; short-term holding enclosures 12-15' x 12-15' x 10-12' (W x L x H); winter holding at least twice size of short-term holding spaces
<b>Complexity of Space:</b>	elevated wooden perches, possibly combination of live and dead trees; perches textured to prevent foot lesions; rock ledges and constructed platforms also appropriate, but should not be sole perching; perching spaced to allow unobstructed flight; pool/stream at least 6' wide with shallowly sloped sides, 18-24" deep for bathing; boulders or deadfall in sunny location near water
<b>Number of Spaces (exhibit and holding):</b>	at least two holding spaces with separate, direct entrances from exhibit to facilitate medical care, introductions, assisted chick rearing, conflict management, etc.; visual and auditory access to exhibit
<b>Breeding Environment:</b>	indoor winter holding connected to exhibit, accessible to the birds year-round for optimal breeding success; nesting material provided daily (various sized plant materials, fresh and dry, with & without leaves; fresh grasses and leafy branches for nest lining); nest sites at least 10' apart if multiple pairs nesting; egg laying typically November through January
<b>Other:</b>	large, aggressive ungulates such as zebra not compatible with pinioned vultures, even when creep areas are provided

### SPECIES APPEAL

- Ambassador animal
- Very active animal or high visibility
- Assurance population
- Conservation significance
- Rare species
- TAG priority species
- Rare in zoos and aquariums
- Candidate species for AZA SAFE
- Multi-species opportunities

### MESSAGING OPPORTUNITIES

- Habitat loss
- Endangered species conservation
- Poaching/illegal take
- Wildlife trade
- Reintroduction
- Human-wildlife conflict

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## MULTI - SPECIES EXHIBIT OPPORTUNITIES

- Hoofstock (Various spp.) - Large
- Stork, European White
- Hoofstock (Various spp.) - Small
- Bird (Various spp.) - Crane
- Stork, Marabou

## NON - SSP SPECIES THAT COULD BE SUBSTITUTED BY AFRICAN WHITE-BACKED VULTURE

- Vulture, Turkey
- Hoofstock (Various spp.) - Small
- Vulture, Black

SPECIES BIOLOGY	
<b>Activity pattern:</b>	Diurnal
<b>Potential risk to humans:</b>	Sharp bill or beak, Talons
<b>Diet</b>	obligate scavenger, entirely carnivorous; at least 50% whole prey items, adult rats, rabbits, poultry and larger carcasses; no more than 50% commercial diet, feline or bird of prey products; muscle and organ meat may be included but make sure adequate calcium provided and other nutrients are balanced; one or two fast days per week typically implemented
<b>Health and Veterinary</b>	long lived species, typically with minimal health issues; bumblefoot lesions (pododermatitis) likely to develop over time if perching is suboptimal; may be susceptible to aspergillosis, other respiratory diseases, or fungal respiratory infections with poor indoor air quality or exposure to significant amounts of decomposing plant matter
<b>Social</b>	highly social species nests in pairs, may form loose nesting colonies of several pairs; may or may not roost communally outside of the breeding season; sedentary rather than migratory; at least two birds should be housed together for social reasons; larger flocks may be maintained given adequate space and spatial complexity
OFFSPRING HOUSING and REPRODUCTION	
<b>General Offspring Holding:</b>	institutions expected to hold at least 2 years
<b>Gestation or Incubation:</b>	55-56 days
<b>Weaning, Fledging or Metamorphosis:</b>	fledge at 5 months, but parent-dependent for 1 yr
<b>General Offspring with Parent:</b>	15-18 months
<b>Number of Offspring per Reproductive Event:</b>	1 (single egg clutch)

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## SSP SUSTAINABILITY PROFILE

**Current Size:** 20 (13.7.0) at 7 institutions (0 non-AZA )

**SSP Coordinator:** Debbie Milligan  
(debbie.milligan@dallaszoo.com)

### CURRENT POPULATION SUMMARY

The Raptor TAG has set a target population size of 50 animals in the African White-Backed Vulture SSP population. The managed population has been ( $\lambda = 1.07$ ) over the past 5 years, and has retained 75.00% of its founding gene diversity.

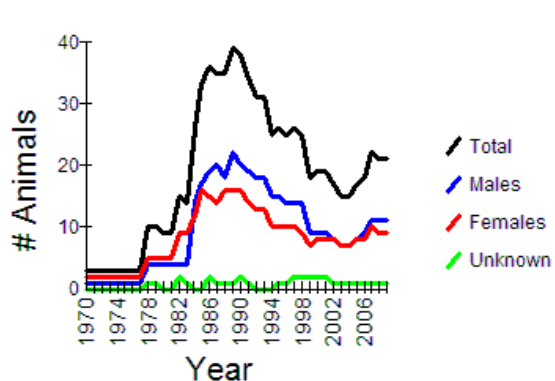


Figure 1: Census of managed white-backed vultures in the AZA population over time, by sex. Breeding and Transfer Plan 2009

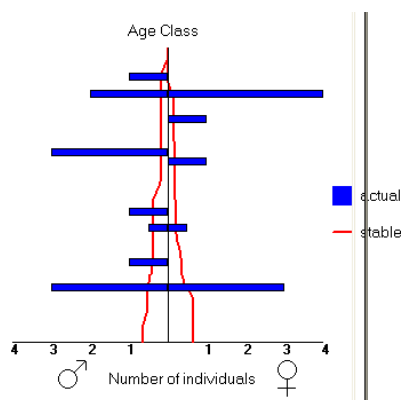


Figure 2: Age pyramid of the AZA white-backed vulture population. Breeding and Transfer Plan 2009

### PROJECTED POPULATION SUMMARY

Population Viability Analysis has not yet been conducted for this population. Estimates indicate the gene diversity is likely to be reduced to 46% over the next 100 years under current management trends.

No Image available

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## CHALLENGES TO SSP POPULATION SUSTAINABILITY

CHALLENGE	GOAL	ACTION	NEED
Demographics	Stabilize age distribution	Adhere to breeding and transfer recommendations from the SSP	Most of the individuals in the current population have not reproduced and are aging; as a result, the age distribution for this very small population is not stable. Some pairs may never breed successfully, but every effort should be made to do so.
Genetics	Increase genetic diversity by importing reproductively viable individuals	Pursue inter-regional or global management plan	Although this species has not been managed as a global zoo population thus far, given the drastic population decline that has caused the species to be critically endangered now, it will be imperative for regional associations to combine their efforts, particularly AZA, EAZA and PAAZA. Imports will become more critical for both genetic and demographic health, and these can be done in a way that benefits other zoological populations or provide placement for rehabilitated birds in range countries.
		Recruit institutions and/or increase SSP participation	Managed populations exist in Europe and Africa, and founders are critically needed. Imports could be planned through the SSP if enough suitable spaces were identified.
		Work with federal or state agencies to streamline permitting process or other requirements	USDA 30-day quarantine is required for all imported birds, and is costly, time-consuming, and potentially very stressful for the birds. Lengthy USFWS permitting processes are also a major hindrance to importation. Developing agreements with regulatory agencies that allow less rigid procedures for zoo-to-zoo transfers would facilitate international transfers and conservation efforts.
Reproduction	Increase offspring survivorship	Artificially incubate and attempt return to parents or cross-foster	Artificial incubation of eggs and foster rearing of chicks by the same or similar species may be useful as reproduction increases. If handrearing becomes necessary it should be done with appropriate isolation from humans and exposure to conspecifics to prevent malimprinting.
	Increase reproductive output	Recruit institutions and/or increase space at participating institutions	In order to increase reproductive output, it will be necessary to increase dedicated breeding spaces that are configured to optimize propagation and refine and document protocols for natural reproduction. Institutions are needed to work collaboratively with other facilities to refine breeding husbandry practices in order to ensure a sustainable population. Facilities with large outdoor spaces with over-top netting, preferably not containing hoofstock, are especially needed.
		Train staff in specialized breeding/husbandry techniques	Vultures kept for display only are relatively low maintenance, but as with most species for which breeding is desired, a moderate amount of both staff time and expertise is essential. In addition to monitoring pair formation, nesting behavior, potential aggression and parent-rearing ability, staff must be prepared to intervene with artificial incubation of eggs and/or hand-rearing of chicks.

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## REPRODUCTIVE TECHNOLOGIES AVAILABLE

- Artificial incubation
- Embryo transfer
- Egg sexing

## MORE INFORMATION FROM THE SSP

- With appropriate behavioral management, it is possible for juvenile birds to work in shows or other education programs until they reach sexual maturity and are needed for breeding.
- The species does well and is very engaging in such programs, so hopefully the population will be large enough to provide birds for programs in the future.

## ADDITIONAL RESEARCH OPPORTUNITIES

- The one thing that will optimize sustainability of white-backed vulture populations is development of repeatable propagation methods. This will entail not just documenting existing practices but testing potentially successful strategies in multiple facilities.

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## ACQUISITIONS AND TRANSFERS

IMPORTS, EXPORTS AND REINTRODUCTIONS	
Imports	Founders exist in Europe and African range-countries, including non-releasable rehabilitated individuals. Imports are possible, but depending on sufficient space in AZA institutions.
Exports	Given the small size of the population, exports are not possible at this time.

CHALLENGES TO ACQUISITIONS AND TRANSFERS	
Disease Testing	No significant disease issues hinder imports, exports or transfers. Regional outbreaks of avian influenza and rarely Exotic Newcastle Disease have restricted movement of all birds from affected areas.
Regulatory	USDA requires 30-day quarantine for all imported birds for screening of avian influenza and Newcastle viruses. This is costly, time-consuming and potentially very stressful for birds.
Life Stage	Movement of incubating eggs is a viable and practical alternative to moving birds as long as logistical and regulatory considerations are carefully worked out well in advance.

\*DISCLAIMER: This report was last updated on 02/01/2015. The AZA Species Sustainability Database and SSP Sustainability Reports were developed through funding from the Institute of Museum and Library Services. Content is based on Animal Program recommendations and does not necessarily reflect the opinion of the Association of Zoos and Aquariums or other collaborating institutions. Modeling results and analyses are based on the best understanding of the current population dynamics and should not be regarded as absolute predictions. The use of this report should be in accordance with all local, state, and federal laws and regulations. Some government laws and regulations may be referenced, but these are not all-inclusive nor is this report intended to serve as an evaluation tool. Please consult the SSP Coordinator if you are considering incorporating this species into a zoo or aquarium, or with questions regarding husbandry practices.