

# Eurasian Eagle Owl

*Bubo bubo*

The world's largest owl, with a personality to match

ASSOCIATION  
OF ZOOS &  
AQUARIUMS



Photo credit: John Perry



Photo credit: Martin Mecnarowski

## Species Status

**IUCN:** Least Concern

**ESA Status:** Not Listed

**CITES:** Appendix II

**TAG:** Raptor TAG

**AZA SSP DESIGNATION:** Yellow

**GEOGRAPHIC REGION:** Africa, Asia, Europe

**BIOME:** Forest: Boreal, Forest: Coniferous, Forest: Deciduous, Grassland, Mountain, Savanna, Urban

## EXHIBIT DESIGN AND MANAGEMENT

### HUSBANDRY AND CARE

SPECIAL EXHIBIT CONSIDERATION	
<b>Outdoor Climate Conditions:</b>	particularly cold hardy and can remain on exhibit even in snowy conditions; access to cooler shelter recommended with long-term temperatures higher than 85F
<b>Substrate:</b>	natural substrates ideal (soil, decomposed granite, pea gravel up to 2")
<b>Indoor Conditions:</b>	no specific temperature or humidity requirements, though lower temperatures (below 70F) more likely to be tolerated; natural light cycles important during long-term indoor housing
<b>Ideal Carrying Capacity:</b>	housed in pairs
<b>Size of Space:</b>	minimum size for two compatible individuals 400 sq ft, though more space always ideal, giving birds more room to roost and nest
<b>Complexity of Space:</b>	cover in the form of low plantings (juniper, boxwood, etc.) or small shelters (i.e. 36" tepee, open at both ends); sufficient perching / roosting options to give each individual space, far from conspecifics, to manage aggression
<b>Number of Spaces (exhibit and holding):</b>	adjacent enclosures with physical separation but visual access helpful to potentially aggressive introductions; once introduced, pair remains together long-term
<b>Breeding Environment:</b>	pairs typically nest in scrapes on the ground rather than on nest platforms high up, making substrate and landscaping important for success; some success with nesting in tires (3' diameter) secured to a plywood panel (perforated for drainage), mounted 3-6' above the ground; secluded location preferred for nesting (possible through visual barriers or by using high spaces above eye-level of visitors); strongly seasonal breeding, with 89% of hatches within the SSP population occurring March to June
<b>Enrichment:</b>	novel objects such as knotted rope (presented in a way that birds will not entangle talons) and paper bags stuffed with shredded newspaper; whole prey items preferable (nutritionally and behaviorally)

### SPECIES APPEAL

- Ambassador animal
- Interactive feeding opportunities
- Cold weather tolerant

### MESSAGING OPPORTUNITIES

- Habitat loss
- Reintroduction
- Human-wildlife conflict

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## MULTI - SPECIES EXHIBIT OPPORTUNITIES

- none identified

## NON - SSP SPECIES THAT COULD BE SUBSTITUTED BY EURASIAN EAGLE OWL

- Bateleur
- Owl, Pharaoh Eagle
- Hawk, Broad-Winged
- Owl, Great Horned
- Hawk, Red-Tailed
- Eagle, Golden
- Vulture, Palm-Nut
- Vulture, White-Headed
- Eagle, African Fish
- Vulture, Griffon
- Hawk, Ferruginous
- Eagle, Crowned
- Hawk-Eagle, Ornate
- Buzzard, Rough-Legged
- Buzzard, Common
- Hawk, Swainson's
- Osprey
- Buzzard, Jackal
- Eagle, Martial
- Vulture, Black
- Hawk, Red-Shouldered
- Vulture, Turkey
- Vulture, Egyptian

SPECIES BIOLOGY	
<b>Activity pattern:</b>	Nocturnal / Crepuscular
<b>Potential risk to humans:</b>	Sharp bill or beak, Talons
<b>Diet</b>	whole prey items (rat, mouse, day-old chick, quail, guinea pig, rabbit) and/or prepared beef-based diets
<b>Health and Veterinary</b>	similar to other raptors; no specific issues of concern
<b>Social</b>	may be housed singly, but is ideally housed in pairs; established pairs tend to be very territorial and aggressively defend their turf
OFFSPRING HOUSING and REPRODUCTION	
<b>General Offspring Holding:</b>	institutions expected to hold for 1 year
<b>Gestation or Incubation:</b>	36 days
<b>General Offspring with Parent:</b>	fledging at 80-90 days, but still fed by parents
<b>Number of Offspring per Reproductive Event:</b>	1-3 eggs/clutch; mean clutch size in ssp 1.4

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## SSP SUSTAINABILITY PROFILE

**Current Size:** 128 (67.56.5) at 56 institutions (18 non-AZA )

**SSP Coordinator:** Ms. Ashley Nicole Graham  
(GrahamAs@si.edu)

### CURRENT POPULATION SUMMARY

The Raptor TAG has set a target population size of 135 animals in the Eurasian Eagle Owl SSP population. The managed population has been stable ( $\lambda = 0.99$ ) historically, and has retained 97.07% of its founding gene diversity.

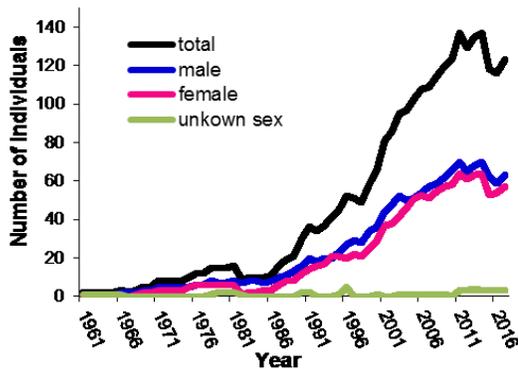


Figure 1: Census of managed Eurasian eagle owls in the AZA population over time, by sex. Breeding and Transfer Plan 2017

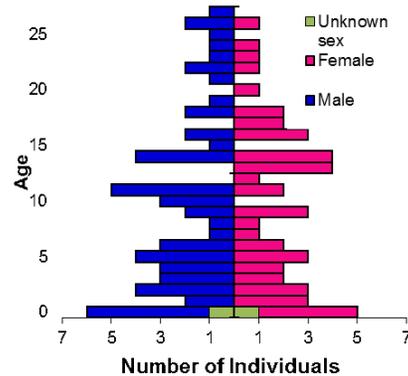


Figure 2: Age pyramid of the AZA Eurasian eagle owl population. Breeding and Transfer Plan 2017

### 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 73% 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
Ambassador Animal	Increase reproductive output or recommended breeding pairs	Include reproductively viable ambassador animals in breeding population	Using one successful institution's model, outreach birds may be paired for breeding during the nesting season, then return to outreach duties once the nesting season has ended: due to free flight programming, these birds are in good prime physical shape, making better parents.
Genetics	Increase genetic diversity by importing reproductively viable individuals	Improve institutional cooperation or communication	Ambassador animals need to be acquired from known sources and have their pedigrees tracked for population management, in case placement is necessary once the bird is mature (and potentially aggressive due to hormones). The SSP Coordinator can consult with institutions on recommended facilities that can provide pedigreed ambassador animals.
Population Size	Reach target population size to maximize long-term sustainability	Collaborate with non-AZA facilities	The SSP aims incorporate non-zoo partners into the program. The species is regularly produced in the private sector, but few private holders have participated in the studbook historically. These partnerships will be important to maintaining a sustainable population into the future.
Reproduction	Increase reproductive output	Adhere to breeding and transfer recommendations from the SSP	Per the 2014 SSP analysis, 6 hatches are needed over the next two years to maintain the current population size, while 16 hatches are needed over the next two years (8 per year) to reach a population size of 135 birds. The population has not been able to achieve these targets. Despite a high number of pairs, the number of successful offspring is still too low to sustain the population. Institutions are encouraged to make every attempt to breed compatible pairs, per SSP recommendations.

## REPRODUCTIVE TECHNOLOGIES AVAILABLE

- None

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## ACQUISITIONS AND TRANSFERS

IMPORTS, EXPORTS AND REINTRODUCTIONS	
Range Country Zoological Population	This species is frequently held in European collections, and non-releasable birds may be available via European wildlife rehabilitation facilities.
Imports	(see above)
Reintroduction	A handful of reintroductions of captive bred owls have occurred in Europe. There is no need, however, for AZA-bred birds to be utilized in any future reintroduction programs.

\*DISCLAIMER: This report was last updated on 08/16/2017. 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.