

# CONSERVATION OF WILDLIFE THROUGH CAPTIVE BREEDING

A close-up photograph of a blue monkey with a yellowish-brown face and chest, looking directly at the camera through the horizontal bars of a metal cage. The monkey's eyes are large and dark, and its hands are visible gripping the bars. The background is blurred, showing more of the cage structure.

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# INTRODUCTION

An ever expanding human population is putting increased pressure on endangered species and driving many to extinction. It is for this reason that the conservation of rare and endangered species has come to the forefront of our attention over recent decades.

There are a number of strategies that exist to conserve these species out of which captive breeding is one of the efficient tools.



# CAPTIVE BREEDING

Captive (L. *capere* – to seize) breeding is the process of capturing, breeding, raising and sometimes reintroducing a wild species (threatened and endangered) in a controlled environment outside their natural habitats under the care of wildlife biologists and other experts.



# HISTORY

The  
pioneer of  
Captive  
Breeding  
is Gerald  
Durrell.



Photograph of Gerald Durrell.

# CAUSES OF WILDLIFE DEPLETION

1. Habitat destruction
2. Habitat fragmentation
3. Hunting and poaching
4. Other anthropogenic activities.



# CAPTIVE BREEDING AND WILDLIFE CONSERVATION

The best strategy for the long term protection of wildlife is its conservation in its natural environment because in this the animals are able to continue their process of evolutionary adaptation to the changing environment.

However, in the face of increasing human activities *in situ* conservation is not currently a viable option for many rare species which may decline or go extinct in the wild. *Ex-situ* wildlife conservation like captive breeding is a young key discipline for conservation of critically endangered wild animal species.

# CAPTIVE BREEDING – A TOOL IN THE CONSERVATION TOOL BOX.

Captive breeding and subsequent re-introduction of a threatened species is an important and successful tool for species conservation.

Captive breeding as conservancy is not just for the critically endangered, but also used as a supplement to restore economically valuable species.



# CAPTIVE BREEDING PROGRAMS

These programs arose out of the coincidence of two forces –

1. Unplanned parenthood by zoo animals raised the issue of what to do with surplus
2. Concern for extinctions in the wild.

# STEPS IN CAPTIVE BREEDING

**BANKING A SPECIES**



**SELECTION OF FACILITIES  
FOR THE CAPTIVITY  
PROGRAM**



**BREEDING**



**REINTRODUCTION**

# GOALS OF CAPTIVE BREEDING

1. To increase the number and fitness of offsprings produced.
2. Identifying optimal methods for re-introduction
3. Maximizing survivorship and reproduction of released individuals.



# SUCCESS STORIES

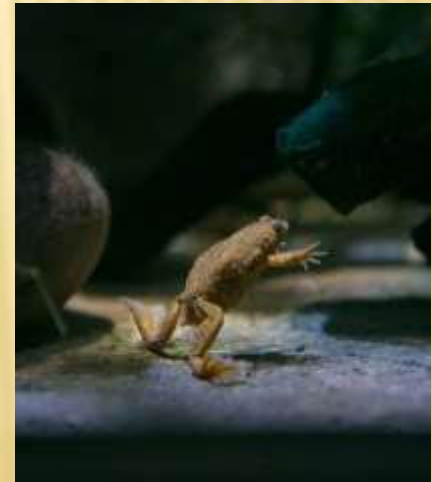
The California Academy of Sciences has a Steinhart Aquarium which has a long and successful history of participation in captive breeding programs. The species that they breed in captivity are



African Penguins



Dwarf Cuttle Fish



Lake Oku Clawed  
Frog

More recent captive breeding success stories include the California Condor, Black-Footed Ferret, Golden Lion Tamarin, and Red Wolf.



Red wolf



Golden  
Lion Tamarin

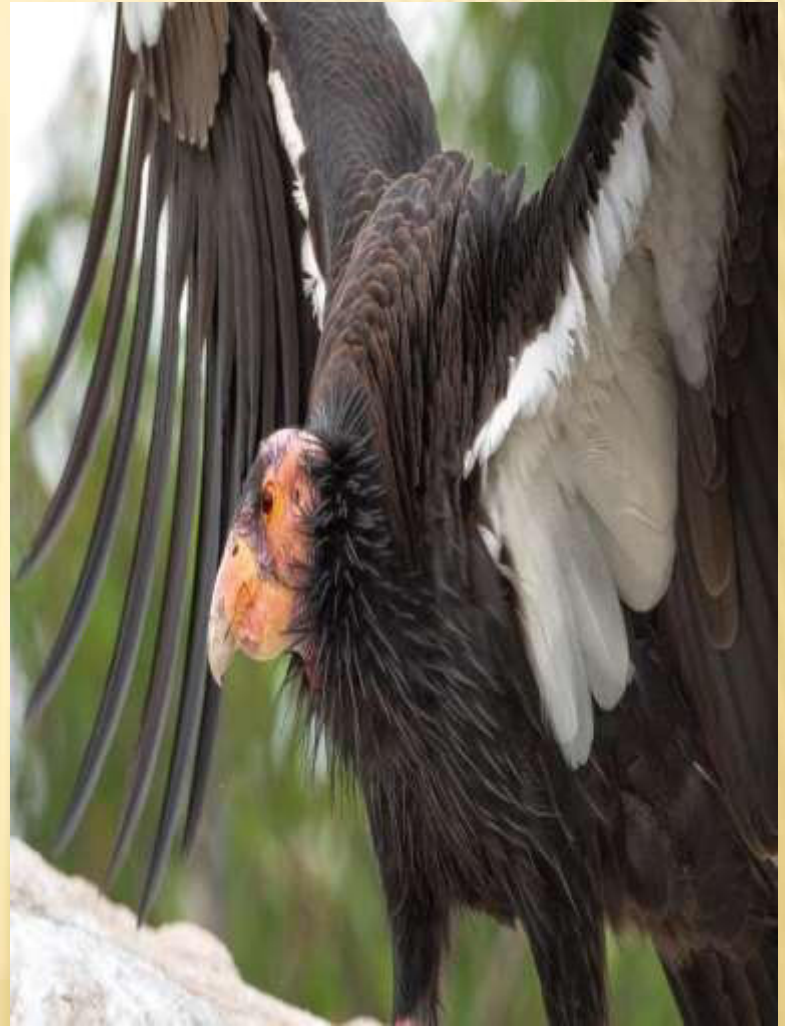


Black-footed ferret

# CALIFORNIA CONDOR

The most expensive captive program ever was the California Condor reintroduction program, which has cost over 35 million dollars.

Captive-bred condors have been trained to avoid power lines, and the number of deaths associated with them has greatly decreased.



California Condor.



# AUSTRALIAN BREEDING PROGRAMS

Taronga Conservation Society of Australia assists in the captive breeding of the following species.



Long-Nosed Bandicoot.



Brush-Tailed Rock Wallaby



Tasmanian Devil.



Regent Honey-Eater.



Malleefowl.

# CAPTIVE BREEDING IN INDIA

A number of endangered wild animal species have been prioritized by the Central Zoo Authority for conservation (captive) breeding in zoos across the country. These species are vulnerable and need immediate intervention.

Some of the species are-





Pygmy Hog



Red Panda



Hangul



Golden Langur





Hoolock Gibbon.



Tragopan.



Rhinoceros.



King Cobra.



Musk Deer.



Monal.



Great Indian Bustard.



Vulture.



# CAPTIVE BREEDING PARKS OF INDIAN WILDLIFE

1. Katraj Snake Park, Pune
2. Madras Crocodile Bank, Chennai
3. Devaliya Safari Park, Gujarat
4. National Chambal Sanctuary, Chambal
5. Ramanagara Vulture Sanctuary, Karnataka
6. Vikramshila Gangetic Dolphin Sanctuary, Bhagalpur
7. Arignar Anna Zoological Park, Chennai.
8. Nandankanan Zoological Park, Odisha



1. Wildlife Conservation Day is celebrated on 4<sup>th</sup> December every year.
2. World Conference on Breeding Endangered Species in Captivity as an Aid to their Survival (WCBESCAS) is the world's first conference on captive breeding.

# CURRENT PROJECTS UNDER CAPTIVE BREEDING

1. Eastern Barred Bandicoot trial introduction
2. Training Helmeted Honey-eaters
3. Monitoring Eastern Barred Bandicoots after release
4. Reproductive success in Orange-bellied parrot.

# FUTURE PROSPECTIVES

1. Captive breeding form is an important tool to protect wild populations.
2. Captive breeding allows elaborate scientific research on threatened animals.


# CONCLUSION

Do not let them be a history ,  
speak for the ones without a voice.



# REFERENCES

- Kaplan M(2014) Captive breeding as a conservation tool, 4(2): 3-4.
- Natrajan J, Kishwan J(2012) Ex-situ updates. Central Zoo Authority, 1(1): 1-16.



The lions, giraffes  
and monkeys  
all join in saying

Thank You!

WILD THING