



Housing Ground Cuscus (*Phalanger gymnotis*) within an Education Setting

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HALESOWEN COLLEGE

Introduction

JANNELL

Technician at Halesowen for 5 years

Current Trainee Lecturer Halesowen College

Took lead on cuscus husbandry & management whilst on the unit

Background/interest in behaviour & training

EMMA

Level 3 Course Leader and Lecturer in Animal Management

Previous experience in zoo keeping, UK and International Conservation

Trip Leader running Conservation and Behaviour based trips within UK and Poland and South Africa.



Average Body Weight	2.5-3kg
Head & Body Length	440mm
Tail Length	330mm

Species Overview

Marsupials

- Closely related to brushtail and scaly tail possums

Short, dense coat. No fur on tail, ears or feet.

Large feet, bifurcation between second and third digits

Prehensile tail

Primarily folivorous/frugivorous

Wild lifespan ~11 years; Captive lifespan up to 15 years



Species Overview – Behaviour

Nocturnal (bouts of activity reported throughout the day)

Semi arboreal

- Will primarily utilise ground-level hides

Solitary

- Have been reported to tolerate each other if housed in pairs, providing plenty of resources are available (food, shelter etc.)

Ecology & Population Trends



Endemic to Papua New Guinea and Aru Islands

- Inhabits forests & scrubland at elevations between 500-1500m

Females tend to produce two litters of a single joey per year

IUCN classification of Least Concern

- Declining numbers of mature individuals

Most commonly hunted species of cuscus; primary threats include:

- Feral dog predation
- Hunting (fur, meat, medicinal use)
- Exotic Pet trade

According to ZIMs, there were only 39 in captivity (2019). As of 2021, there are believed to be 30 individuals in zoos, an increase of 4. the first positive trend seen in a few years

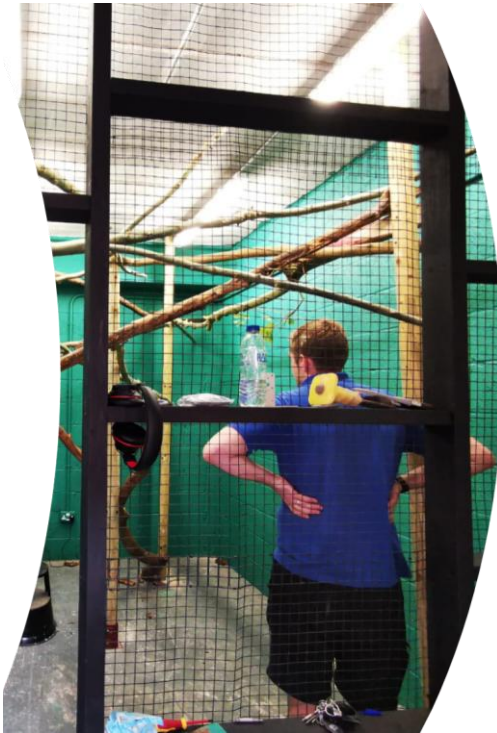
POPULATION TREND



Decreasing



Husbandry – Enclosure



3m x 4m x 3m (feed store converted into enclosure)

Heating/UV Provision

Catch Tunnel

Two permanent hides

Multilevel climbing structure, with ropes

Red lights for visibility

AinsleyCam







Husbandry – Reversed Lighting System

Reversed lighting system introduced

Daylight changed every 10-14 days until nocturnal setting achieved.

We at Halesowen are one of few collections to house Cuscus on a RLS.

- Allows learners to experience a different way of working and managing species

Husbandry – Management

Diet

- No fruit in main diet
- Trial & error in terms of browse/live feed offered

Training

- Crucial to daily management
 - Target, station, scales & nail clips





Benefits to housing in education

New “exciting species” not housed before at HC

Teaching and demonstration of different management techniques

“Zoo enclosure” design

Potential to inspire students to pursue a career in Animal Care in conservation

Potential to be used across all levels & cohorts

- EHE & Schools provision
- L1-3 BTEC
- HNC/D

Links to Curriculum

Pearson BTEC Level 3 in
Animal Management

Unit 3 - Animal Welfare
and Ethics – Welfare
appraisals on exotic
species

Unit 4 - Practical
Animal Husbandry –
Exotic animal
husbandry, diets,
healthcare etc.

Unit 5 - Animal
Behaviour – Monitoring
nocturnal animal
behaviour

Unit 8 - Investigative
Research Project –
Research projects on
circadian rhythm, diet,
cortisol etc.

Unit 20 - Human and
Animal Interaction –
Training non-contact

Unit 21 - Exotic Animal
Husbandry

Unit 23 - Zoological
Animal Health and
Husbandry

Research Opportunities



Very little is known about the environmental, dietary, and behavioural needs of ground cuscuses in captivity.



Aiming to do research with the goal of improving their welfare and breeding success in captivity.



This research will also provide valuable information for conservation efforts for this species, which is currently listed as least concern on the IUCN red list but this was last assessed on 15th June 2015 (Leary, 2015) but EAZA research suggests a sharp decline in the species due to numerous threats to them in the wild so breeding successes are urgently needed (EAZA, 2020).

What do we know?

Have a wide distribution, with populations found in both lowland and montane rainforests.

They feed primarily on leaves, fruits, and flowers, and are known to be opportunistic feeders.

They live in small family groups, consisting of one or two adults and their offspring.

They are also known to be solitary, especially adult males.

They are facing several threats to their survival, including habitat loss and fragmentation

In addition, they are hunted for meat, and their fur is used to make clothing and other items (Cuthbert, 2010).

Mitigation: In Indonesia, protected areas have been established to preserve the remaining rainforest habitats of ground cuscuses.

Enforcement of these protections is weak, and illegal logging and hunting still occur.

In Papua New Guinea, community-based conservation programs have been established to provide alternative livelihoods for local people, such as ecotourism, and to educate them about the importance of protecting ground cuscuses and their habitats (Farida, 2022).

Ground Cuscus in Captivity



Challenges/Considerations



Health Concerns

Ocular issues – substrate
Nail Clips
Diverticulitis/Digestive Issues



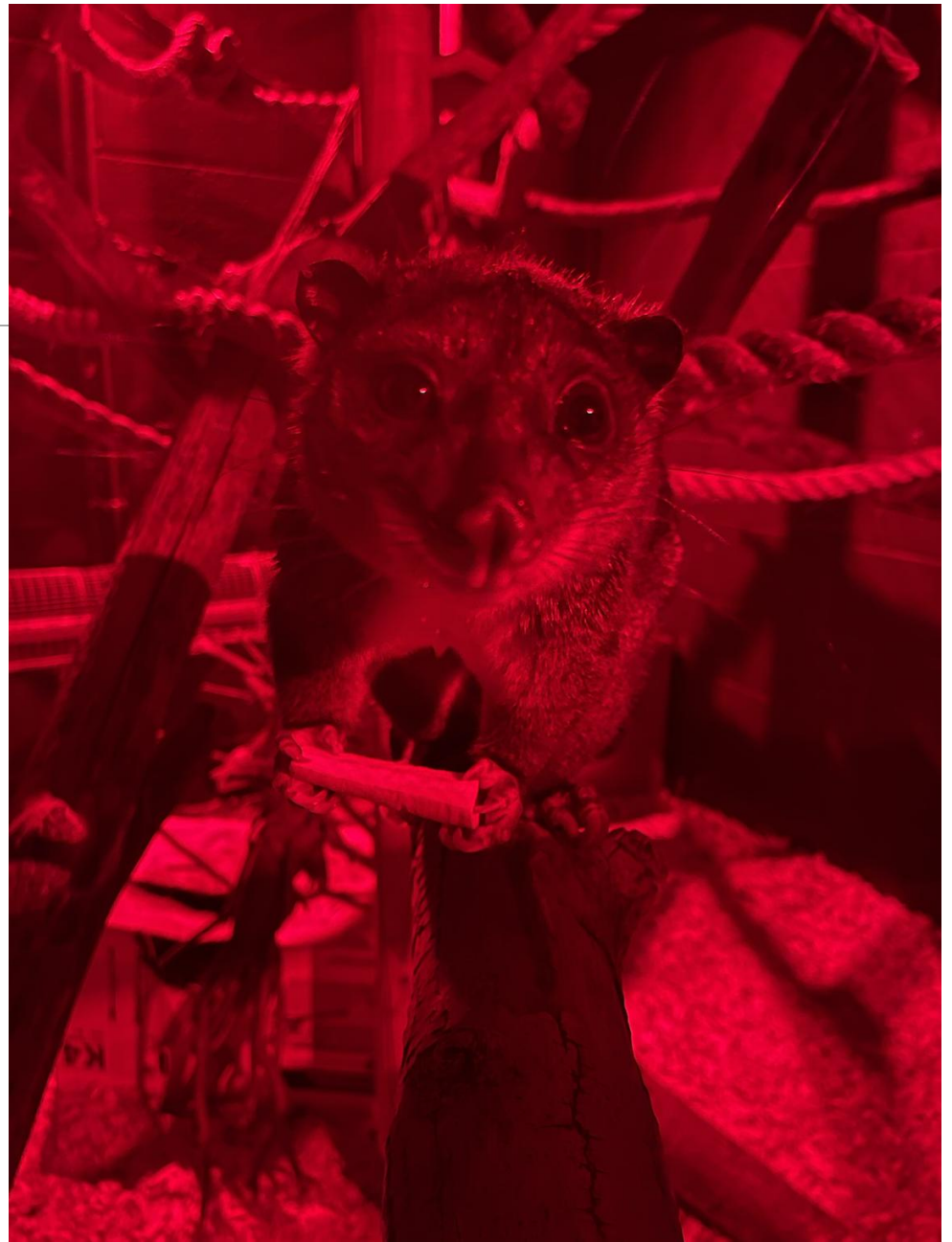
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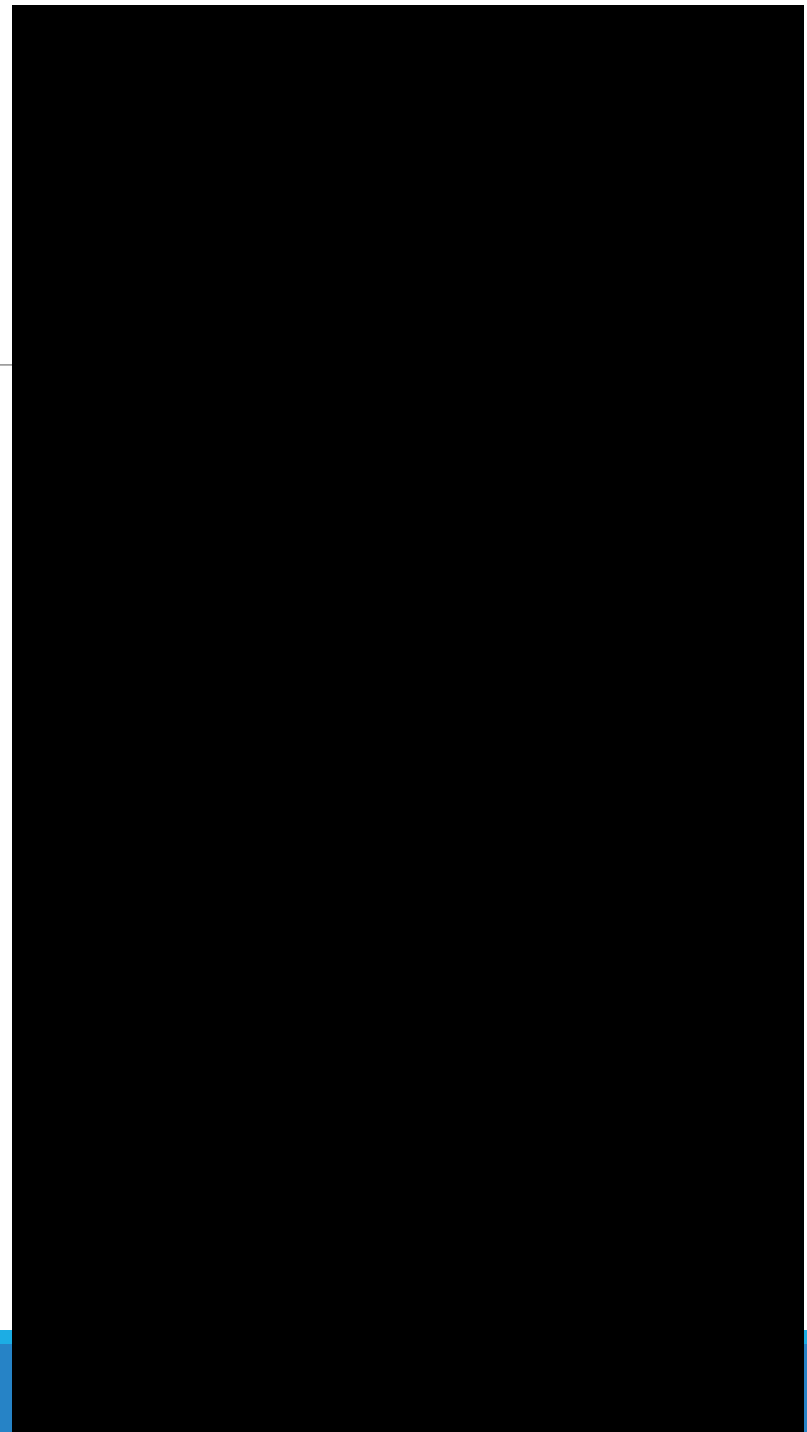
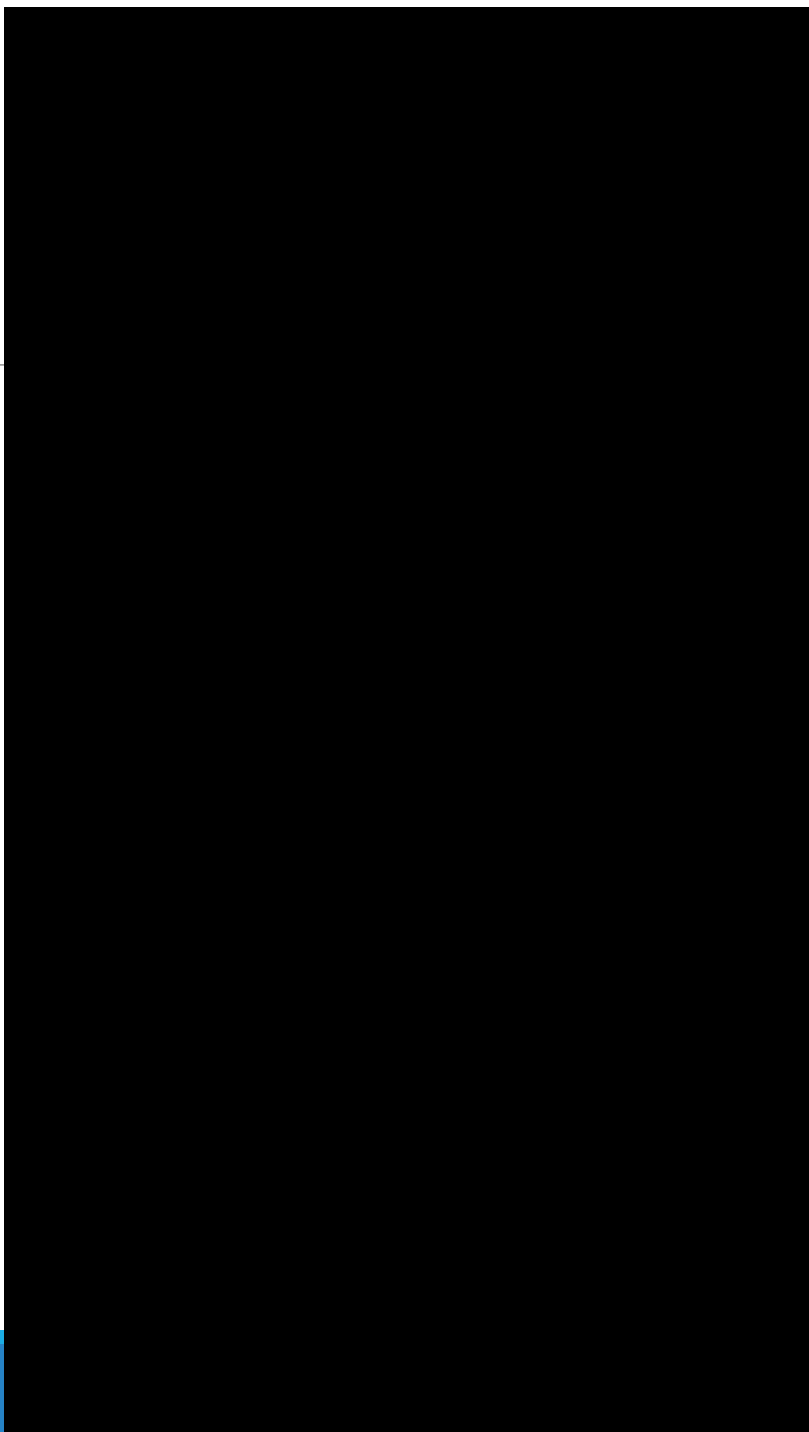
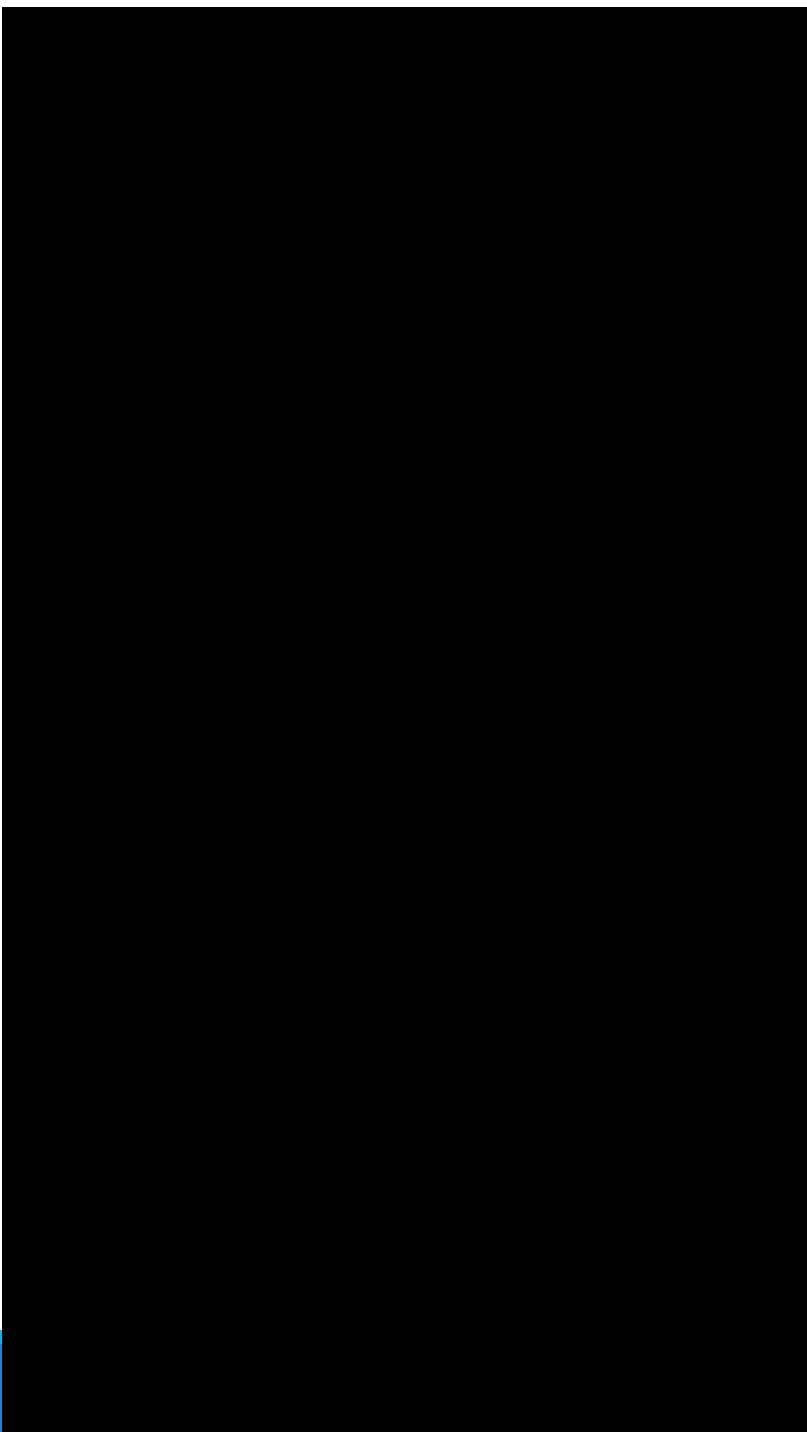


Being part of breeding programmes working alonside zoos



Diverse addition to collection and curriculum





Studbook Info/Contacts

Emma and I are always happy to talk Cuscus!

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Joe – Animal Unit Manager @Halesowen College

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Johnpaul Houston – Current Studbook Keeper

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