

A Scent To Enhance Lemur Welfare and Conservation



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Introduction

- Lemurs communicate with scents, which provide info on ID, sex, social and reproductive status.
- Ruffed lemurs are a conservation priority and breeding in zoos is essential for their future.
- Zoos use enrichment to improve welfare.
- The zoo environment has unique challenges to welfare which affects health
- Link between enrichment and breeding poorly understood
- Can an enrichment based on lemur scents enhance welfare and encourage mating?

Identifying our Scent

- Collection of female scent samples in breeding and non-breeding season.
- Analysed with GCMS techniques.
- 12 compounds identified as key and used to develop a novel scent enrichment:

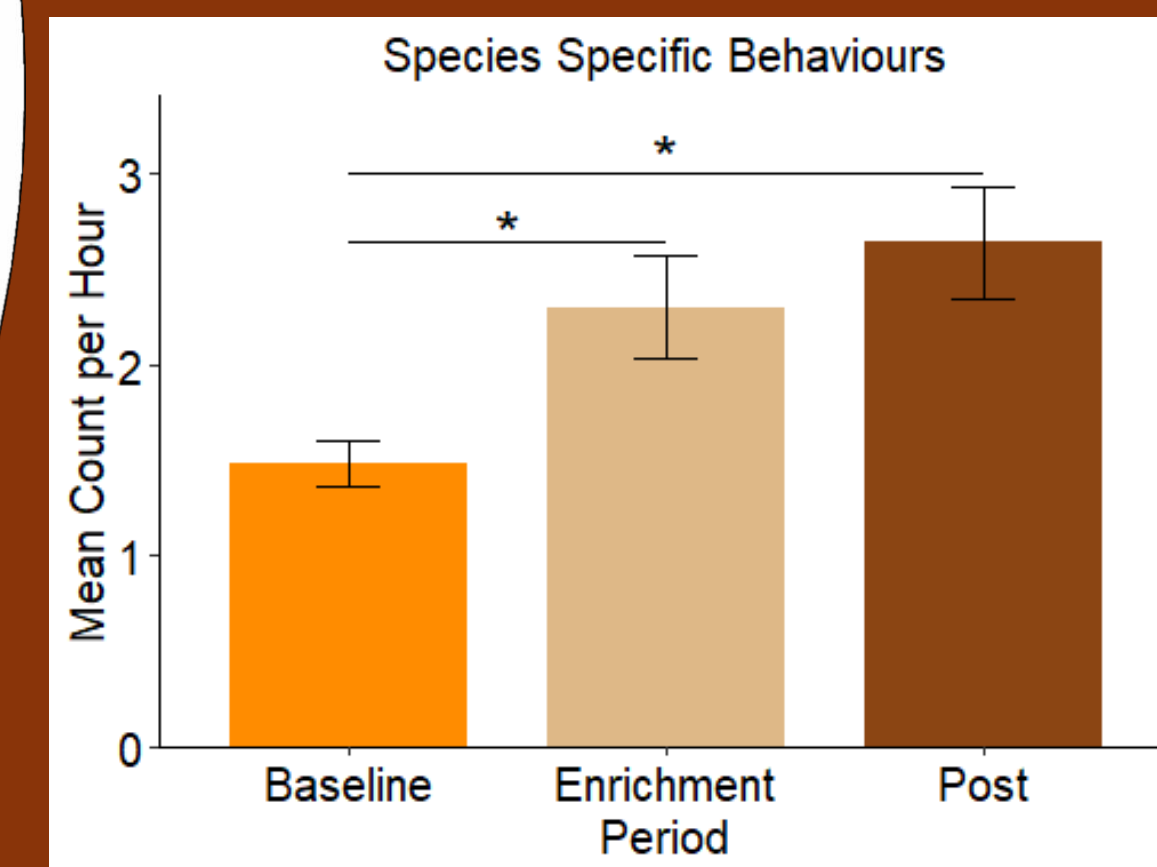
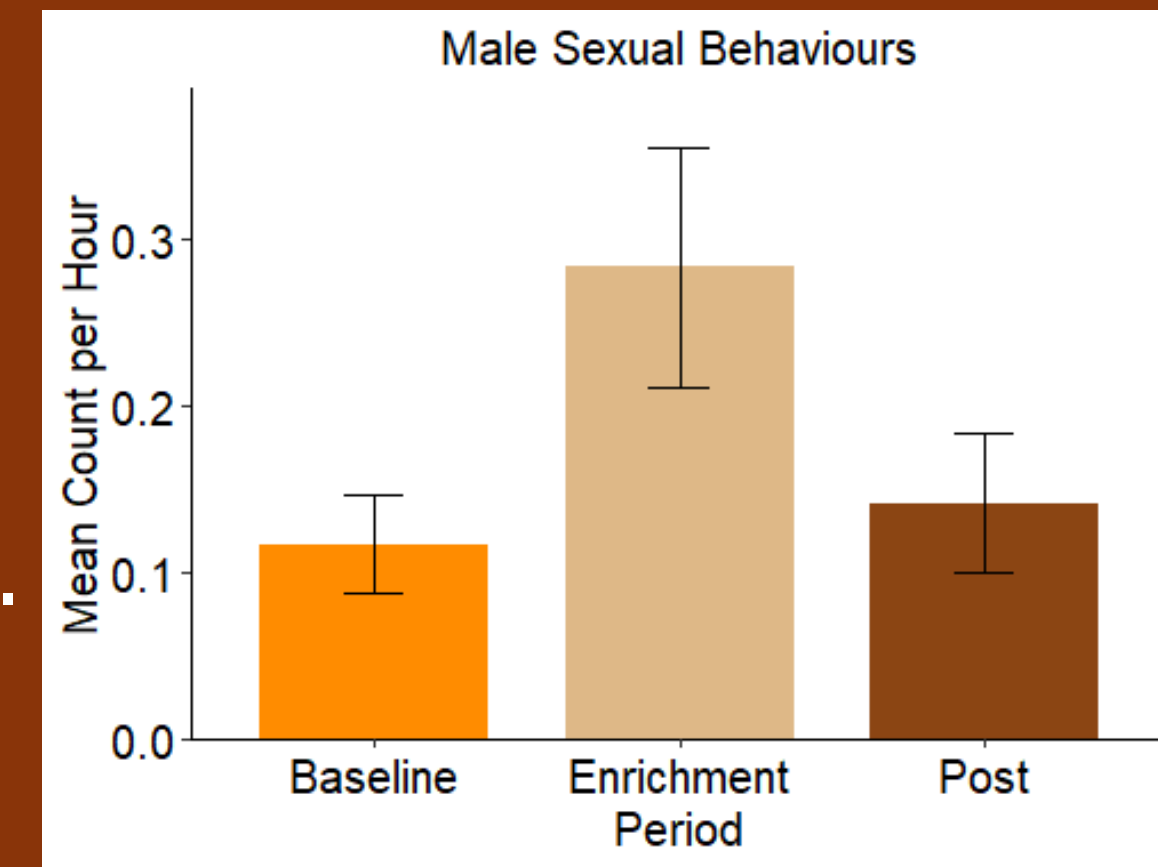
Benzaldehyde	Benzyl alcohol
2-Ethylhexanol	1-Octanol
2-Phenyl-2-propanol	2-Phenoxyethanol
Nonanal	Linalool
Decanal	Dihydromyrcenol
Menthol	Tetrahydrolinalool

What's that Smell?!

- 4 lemur groups: 7 ♀ + 8 ♂
- 3 study periods: Baseline, scent enrichment, post-enrichment.
- Cotton soaked in scent and place in enclosure.
- Behavioural observations.

Lemur Response

Sexual behaviours were highest during enrichment. Mounting was triggered in all groups (7 males).



Positive welfare indicators increased significantly following exposure to scent enrichment.

Real World Impact!

- EAZA best practice guidelines:
 - Husbandry
 - Breeding programme
 - Application to other species

