

# The curious cat: Feral cat activity at artificial refuges



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I acknowledge the Nanda and Malgana as  
the traditional owners of the land this  
study is conducted on.



BUSH HERITAGE  
AUSTRALIA





Cropping



Livestock

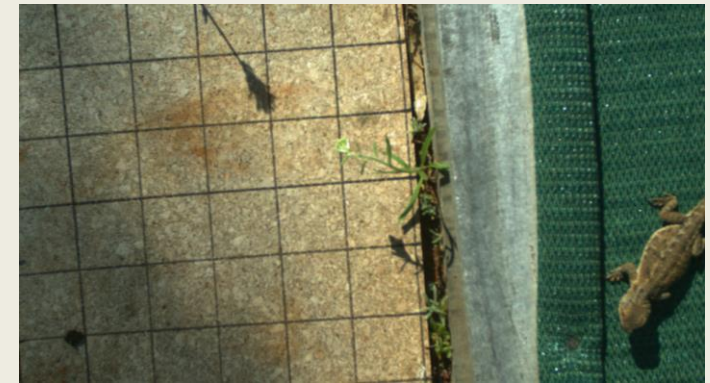
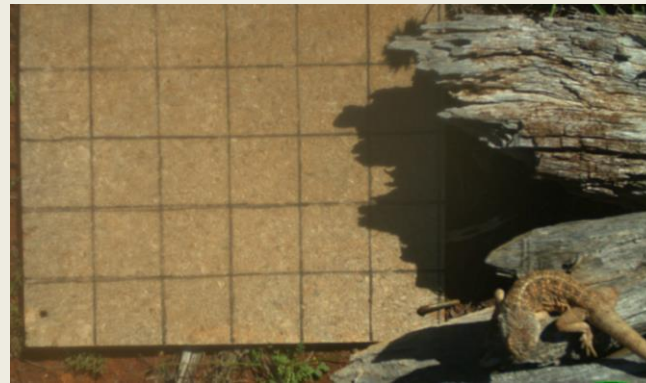
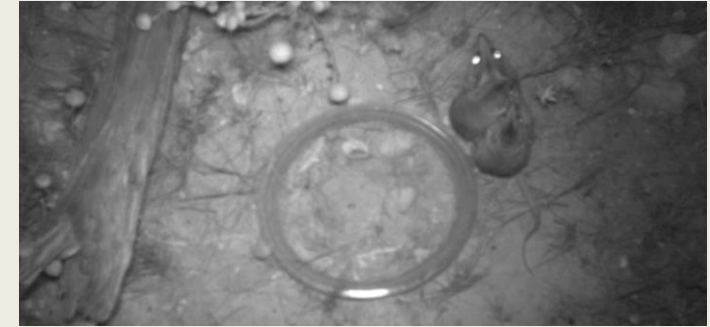
# Artificial refuges

- Human-made materials that aim to replace natural refuges that have been lost
- Used in restoration projects
- Further research into potential risks needed
- Long-term studies required



# PhD Scope

Examine whether artificial refuges for small mammal and reptile species can reduce feral cat predation in disturbed landscapes?



# Feral cat activity at artificial refuges

## Predictions:

- Greater cat activity in cleared vs intact sites
- More activity at refuges versus control plots
- Feral cats will show different behaviours at different refuges
- Proportion of behaviours will differ between refuges





2,000m



# Study Site

## Eurardy Reserve: Nanda country

- 30,050 ha reserve
- 145km North of Geraldton
- Small portion cleared from 1970s
- Active revegetation from 2019
- 4 Paired sites

-  Intact Yorkgum Woodland
-  Cleared





### **Log Piles**

- Replicate fallen debris
- Recycled fence posts



### **Iron sheets**

- Most frequently used material
- Recycled sheets



### **Control**

- No artificial refuge



### **Wooden Pallets**

- New material
- Recycled
- Shade cloth cover

# Analysis: Cat activity

Behaviour	Activity
Walk Past	Walking
Interacting	Climb
	Grooming
	Lying
	Playing
	Scent marking
	Scratching
	Sitting
	Standing
Investigating	Attempting enter
	Enter
	Investigating
	Sniffing

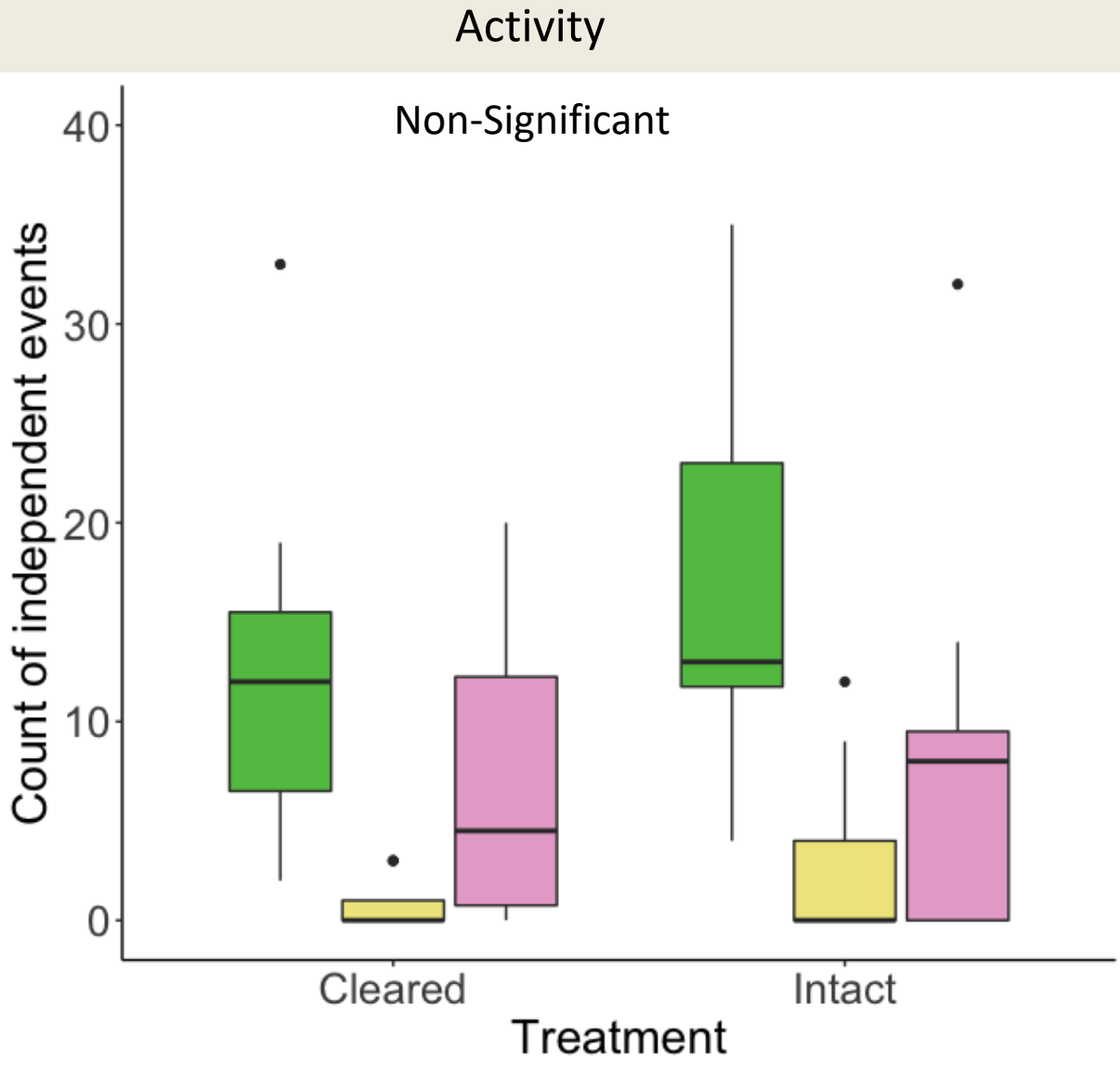






- Walking\_Past
- Interacting
- Investigating

# Results: Treatment



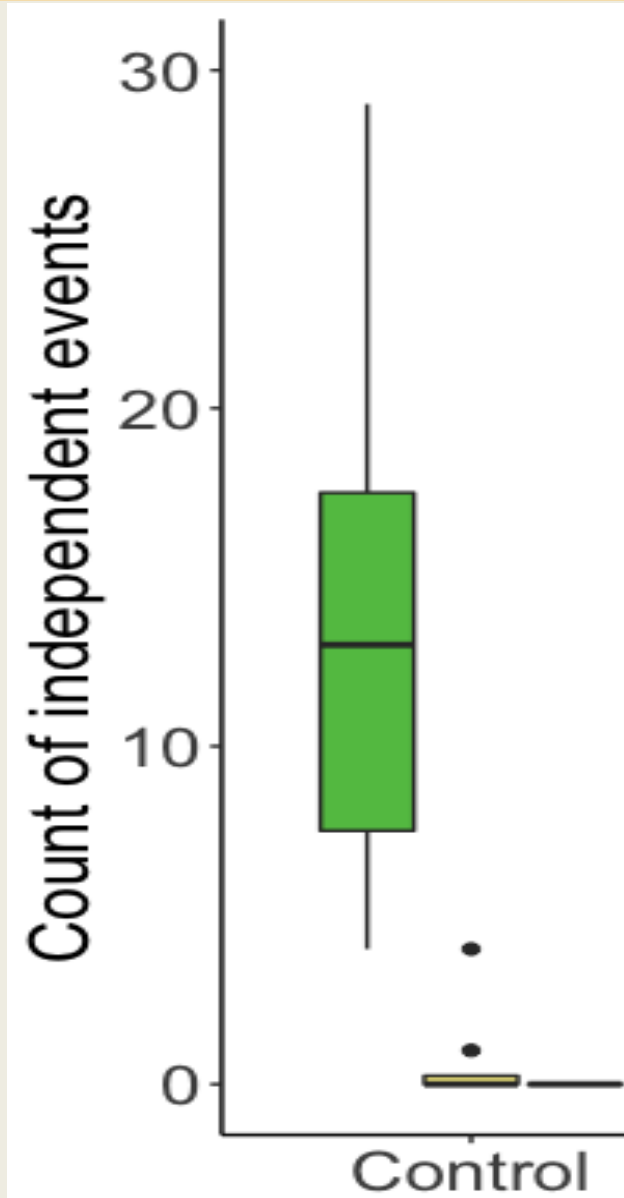
Walking\_Past  
Interacting  
Investigating

# Results: Refuge

\*\*\* =  $p < 0.001$   
\*\* =  $p < 0.01$   
\* =  $p < 0.05$

Count of activity for  
independent events  
MDS MANOVA

Compared to control



Refuge

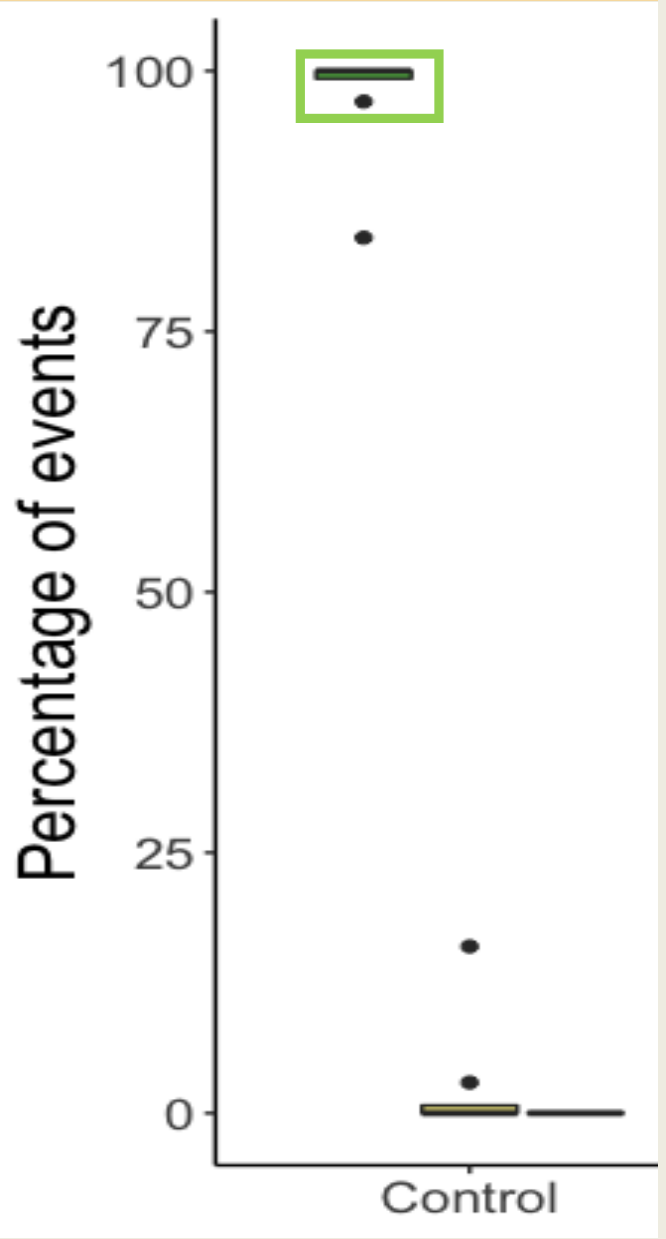
- Walking\_Past
- Interacting
- Investigating

# Results: Refuge

\*\*\* =  $p < 0.001$   
\*\* =  $p < 0.01$   
\* =  $p < 0.05$

% of time spent for each behaviour  
MDS MANOVA

Compared to control



Refuge

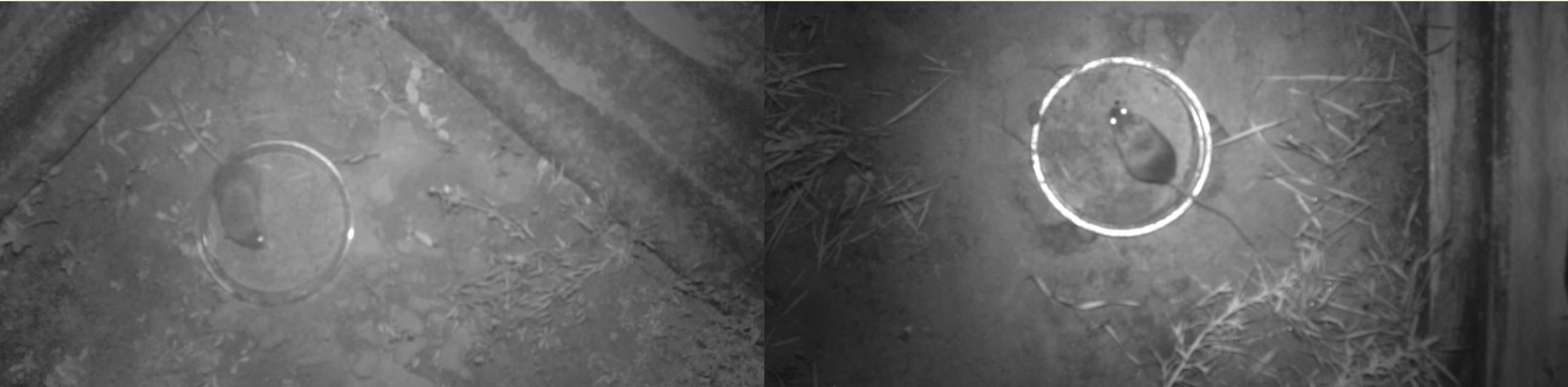
# Conclusions

- More cat activity at refuges
- Ecological trap?
- Does this effect reptile and mammal use?
- Do the benefits outweigh the costs



# Future research directions

- Continue monitoring cat activity and fauna use: Hamelin and Eurardy
- Investigate perceived predation risk at refuges
- Use GPS collars to track cat movement and investigate predation success at refuges
  - With more funding
- Investigate the thermal properties of artificial refuges

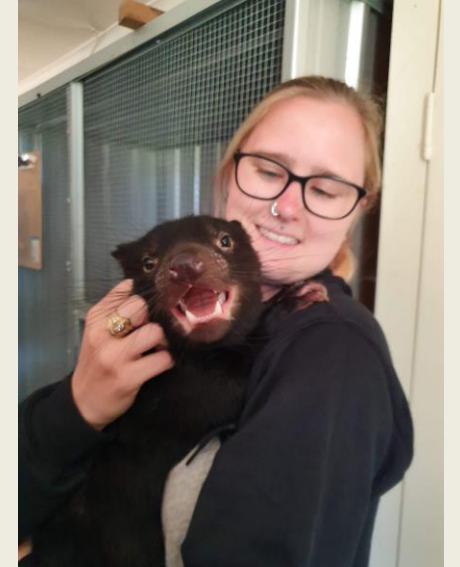


# Thank you

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