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Female Waitaha gecko

Acknowledgements

- Project funding from: North Canterbury Forest and Bird, and Brian Mason Trust.
- Orana Wildlife Park and Landowners: Donna Field and Ben Todhunter (Cleardale Station), the Helps (Flea Bay), and Marie Hayley (Goughs Bay).

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Background – NZ lizards

- 86% of 125 lizard species are Threatened or At Risk.
- All but one species endemic
- Limited knowledge and technology
- Artificial Retreats (man made structures)

Field site:
Flea Bay



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My Project



1. Artificial Retreat design for farmers

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My Project



1. Artificial Retreat design for farmers



2. LizOx Research and Development

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My Project



1. Artificial Retreat design for farmers



2. LizOx Research and Development

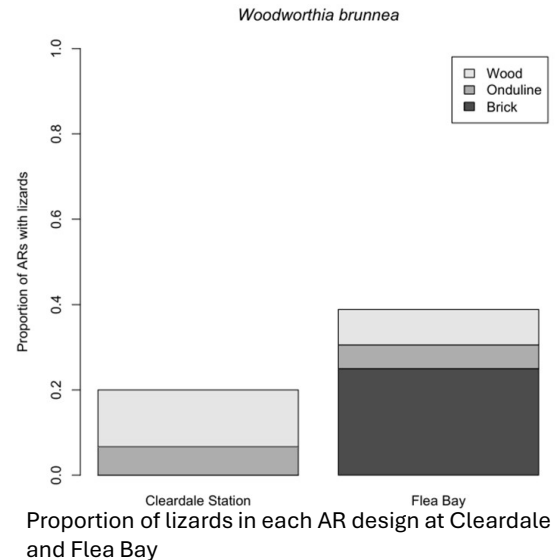


3. Behaviour studies

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1. Artificial Retreat Designs

- Geckos used all three designs
- No clear preference but different use between sites
 - Climate?
 - Natural refugia?



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LizOx field box

2. LizOx – research and development

- Lack of camera technology for monitoring lizards.
 - Cryptic,
 - Ectotherms,
 - Small.
- Monitor all day and in all conditions.

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2. LizOx design

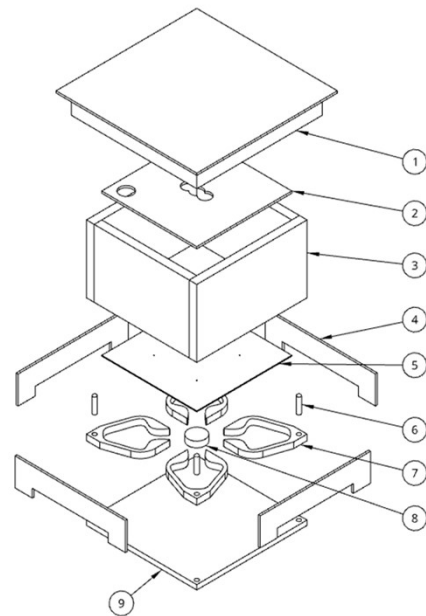


Figure Error! No text of specified style in document..1. LizOx final design components: (1) lid, (2) insert, (3) walls, (4) external walls, (5) Perspex sheet, (6) dowel pegs, (7) rooms, (8) centre circle, and (9) base.

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2. LizOx Research

- Captive trials at Orana Wildlife Park.
 - Light trials,
 - Room design.



Light Trial



Orana Park trials



Closed and open room trial

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2. LizOx Research

- Field Trials at Cleardale Station and Flea Bay
 - Use by wild lizards,
 - Refining design for field devices.



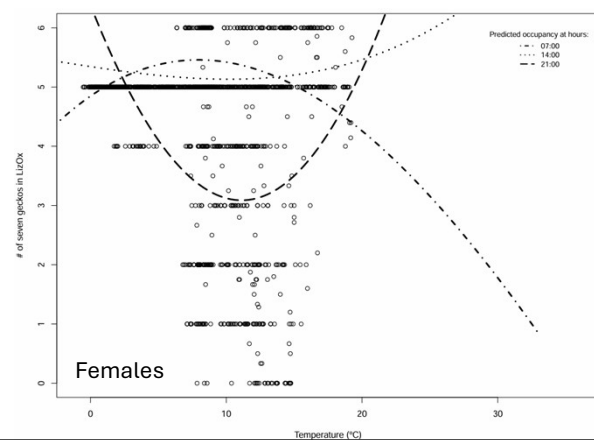
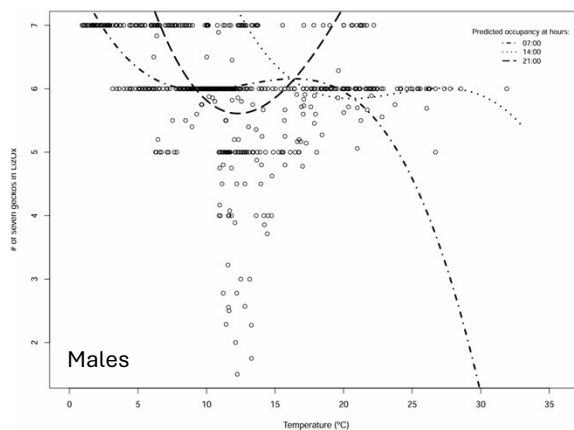
Field trial LizOx at Flea Bay

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3. Gecko Behaviour

A. Occupancy of LizOx

- Lower LizOx occupancy between 10°C - 16°C (males) vs 8°C - 17°C (females).
- Lower occupancy between 5pm – 8pm (M) vs 7pm – 5am (F)

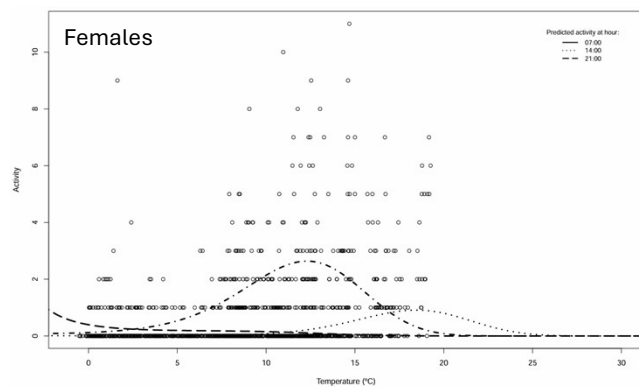
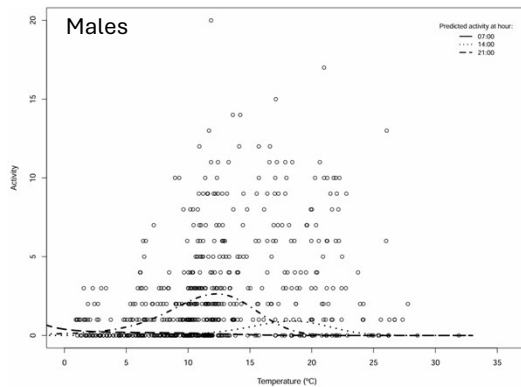


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3. Gecko Behaviour

B. Activity levels

- High activity levels midday and 5pm – 7pm (M) vs 7 am (F)
- Higher activity levels occurring 10°C - 22°C (M) vs 10°C - 20°C (F)

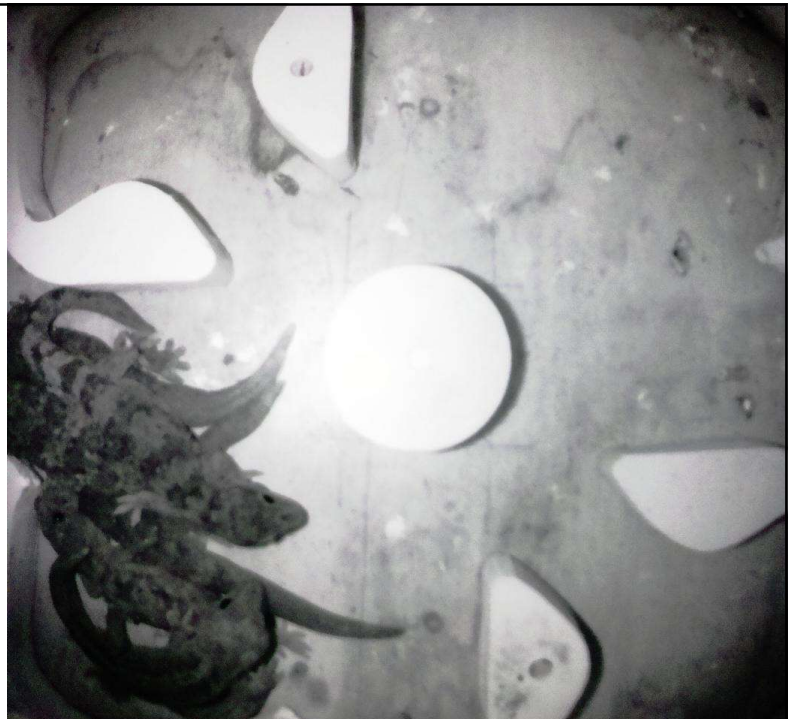


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3. Gecko Behaviour

C. Clumping

- High portion clumping midnight - 7am and 3 – 7pm (M) vs
- Higher proportion clumping at low temperatures



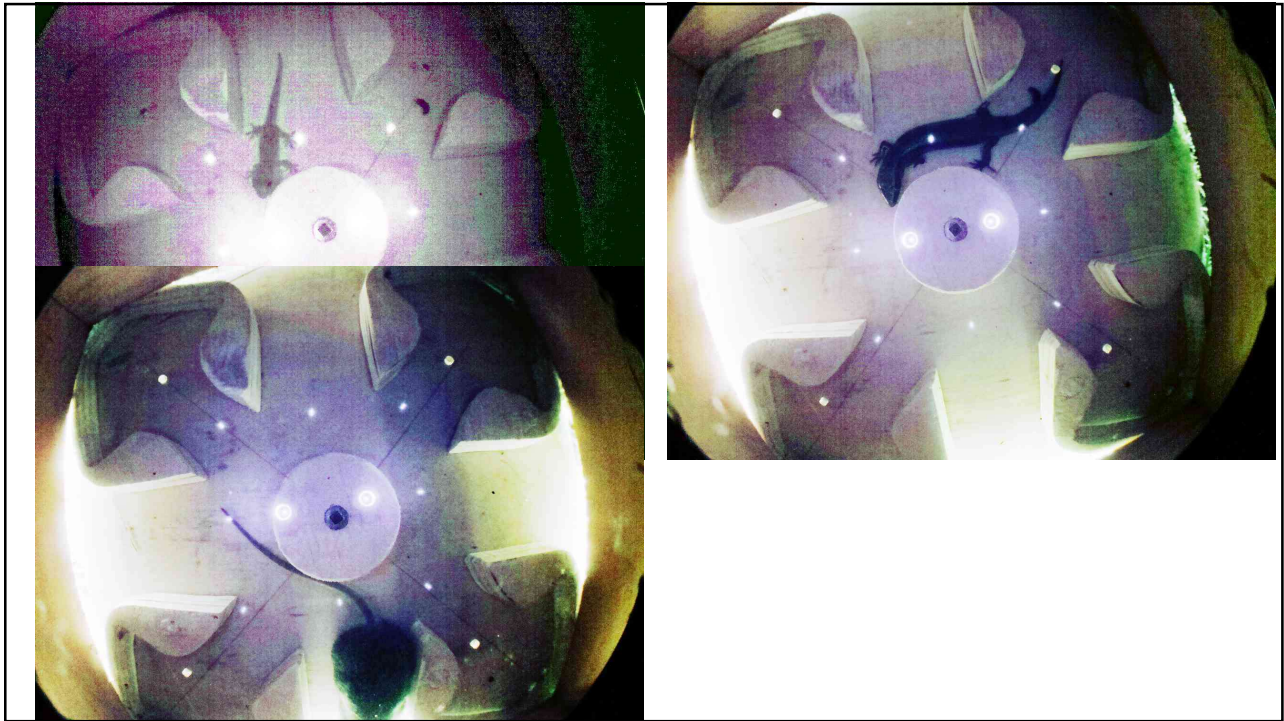
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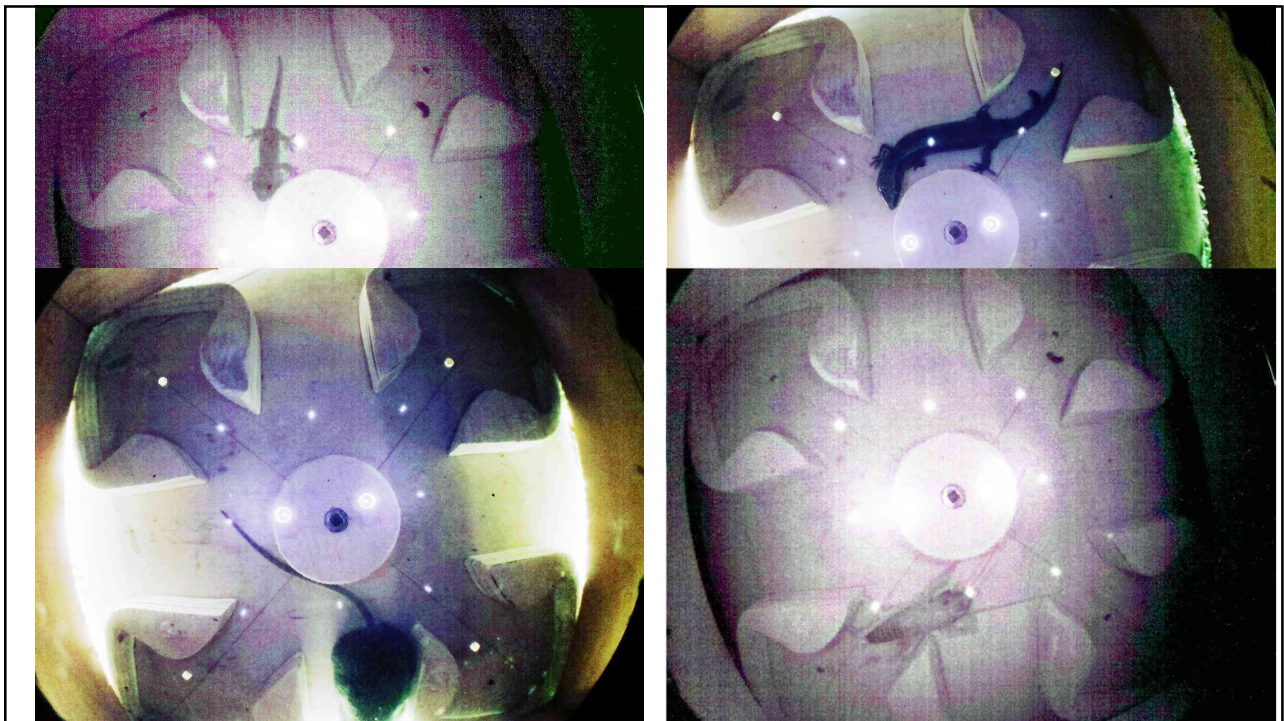
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Questions?

