

# Ellerslie Proof of Concept Eradication Project

How close can we get to eradication at a locality and what is required?

A comparison of aerial control techniques

Rod Baker  
Riverina Regional Pest Coordinator  
Local Land Services



# Setting the Scene

- Statewide FMD Preparedness Program
- Pest Animal Component
- Eradication Proof of Concept Projects

“Can it be done?”

“What would it require?”

“Find an island?”



# The Landscape

## Ellerslie

- Location
- Size
- Terrain & Vegetation
- Mixed Tenures
- History
- An Island (kind of!)



# *Project Design*



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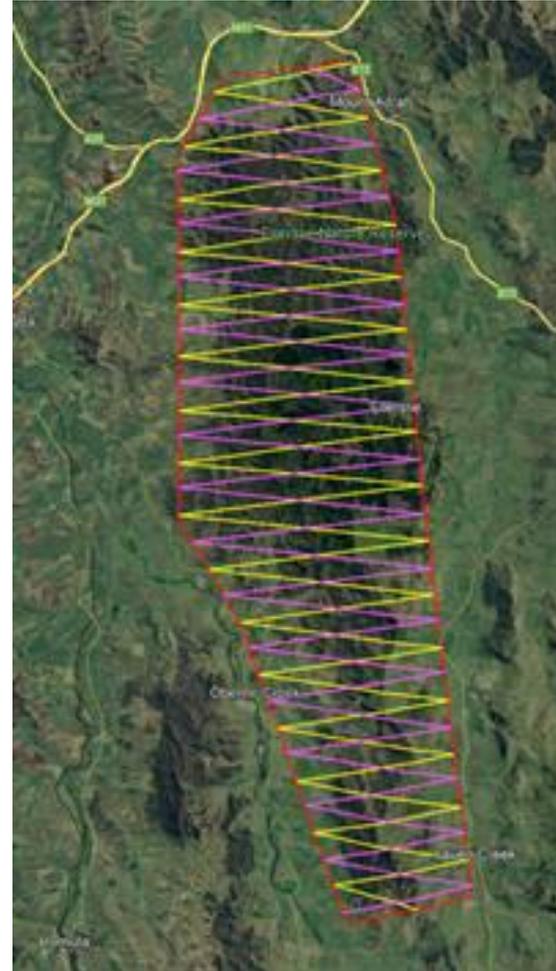
Dr Tarnya Cox, Dr Jessica Todd

Department of Primary Industries Vertebrate Pest Research Unit

1. Pre-control Thermal Survey – Estimate populations using distance sampling method
2. FFAST Aerial Shoot – Standard procedure
3. Thermal Assisted FFAST Aerial Shoot (Both control & final survey) – Pseudosystematic procedure

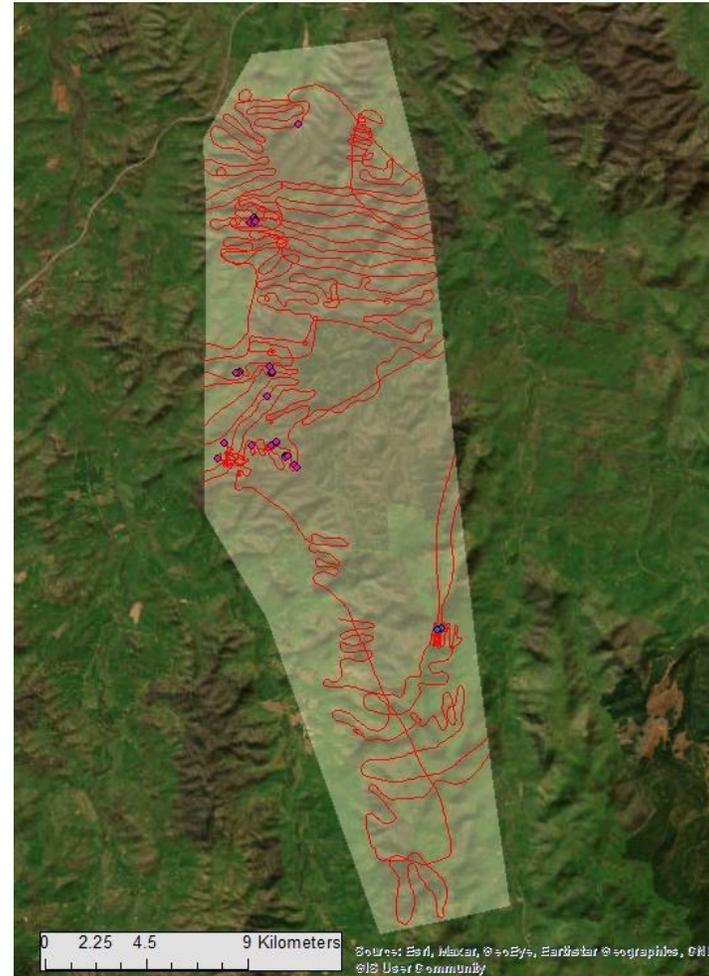
# Project Design - Pre-control Survey

- “Mirror transects” – Estimate Populations
- 1km apart complementary zigzag formation
- Distance sampling survey method
- Report generated
- Populations estimated



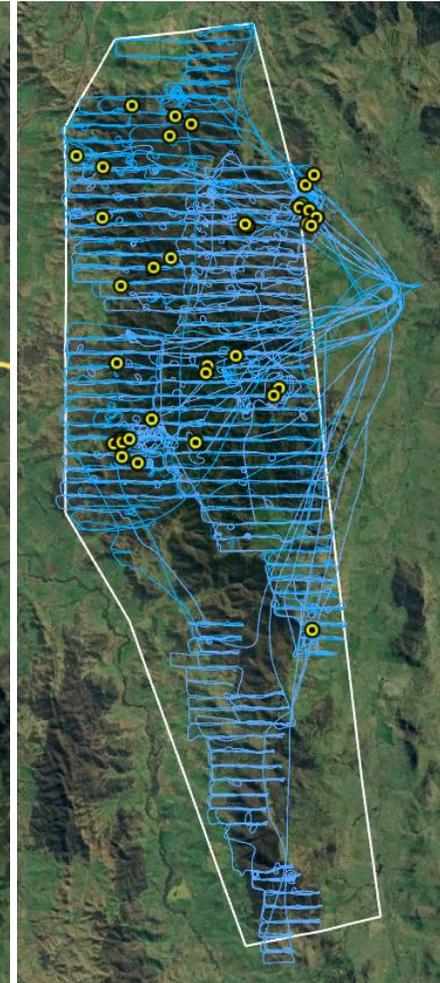
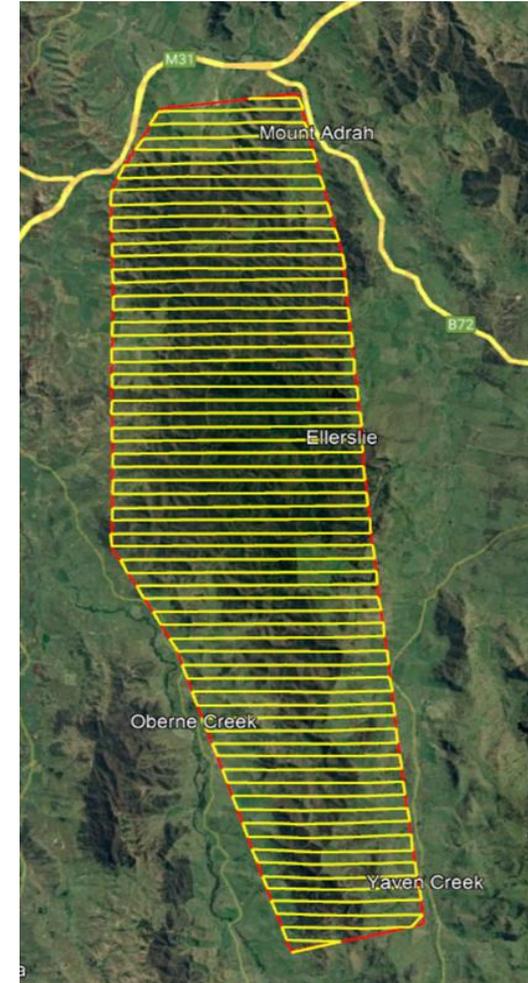
# Project Design - Standard FAAST Shoot

- Aerial hunting
- Based on local knowledge & best guess
- Less hours searching



# Project Design – Hybrid Aerial Shoot

- Pseudosystematic Search Pattern
- Use of thermal operator
- 500m spacings flown at 300ft
- Flown north to south twice
- Search and destroy
- Both the final control program and the final survey



# Sequence of Events

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- **November/December 2022** – Initial Surveys undertaken by Helisurveys
  - **January 2023** – Preliminary report with population estimates completed by DPIVPRU
  - **January 2023** – Conventional Aerial shooting program undertaken
  - **March 2023** – Hybrid Aerial pseudosystematic shooting program undertaken. Also the final survey

# Program Results – Animals Removed or sighted

Species	Preliminary Survey Population Estimate	Conventional FFAST Operation (January 2023) (removed)	Thermal Assisted FFAST Operation (March 2023) (sighted/removed)	Total Removed
	Not detected	10	55 / 41	51
	239 <sub>±</sub> 135	140	399* / 75	215
	66 <sub>±</sub> 25	0	23 / 20	20

\* 278 goats detected in non-consenting blocks, 10 goats with ear tags = 101 goats available to shoot

# Observations, Constraints, Costs

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- Tighter controlled sequences of events - no gaps to allow migration
- Non consenting landholders
- Population estimates - in the ball park
- Where were the pigs?
- Thermal - great on some species comparable on others
- Systematic grid vs aerial hunting - surprises in animal locations
- Cost comparison - Ellerslie vs Other areas in Riverina