

Exploring the habitat and spatial ecology of European

HARES

in forest ecosystems

Rebecca Stone
PhD Candidate



Supervisors: Guy Ballard, Annalie Dorph, Jaime Heiniger



European hares

Lepus europaeus

- ✦ Live above ground (no burrows or warrens)
- ✦ Precocial young
- ✦ Not as widespread as rabbits (hares are not prolific breeders)
- ✦ Distribution is limited to eastern Australia

Understudied species in Australia (especially compared to the European rabbit)

Overview

- 🐰 Study sites
- 🐰 Occupancy modelling
- 🐰 Two trapping techniques
 - cage trapping
 - landing nets
- 🐰 GPS collar tracking data

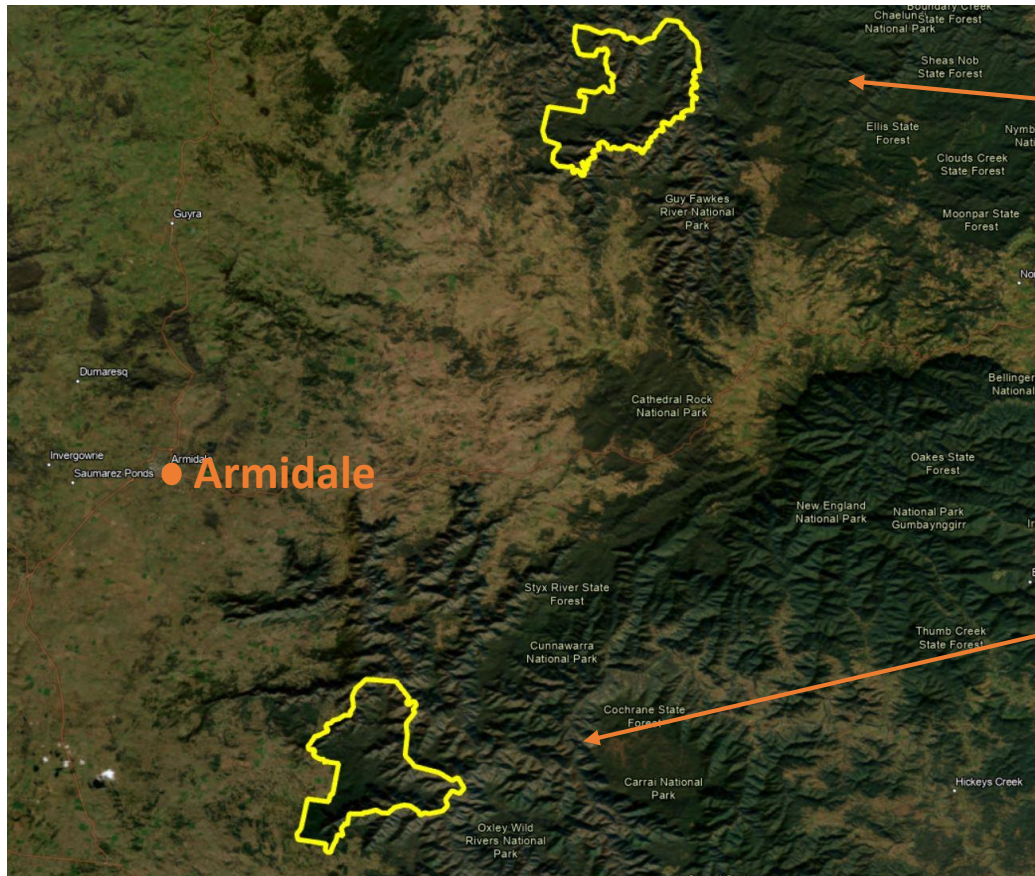


Background

- 🐇 Typically, hares are agricultural specialists
- 🐇 It is not understood how hares utilise mesic systems
- 🐇 Forests have barriers for movement:
 - structurally complex vegetation
 - topography
 - limited food resources
 - predators
- 🐇 **Before management decisions can be made, understanding the species in these systems is vital**



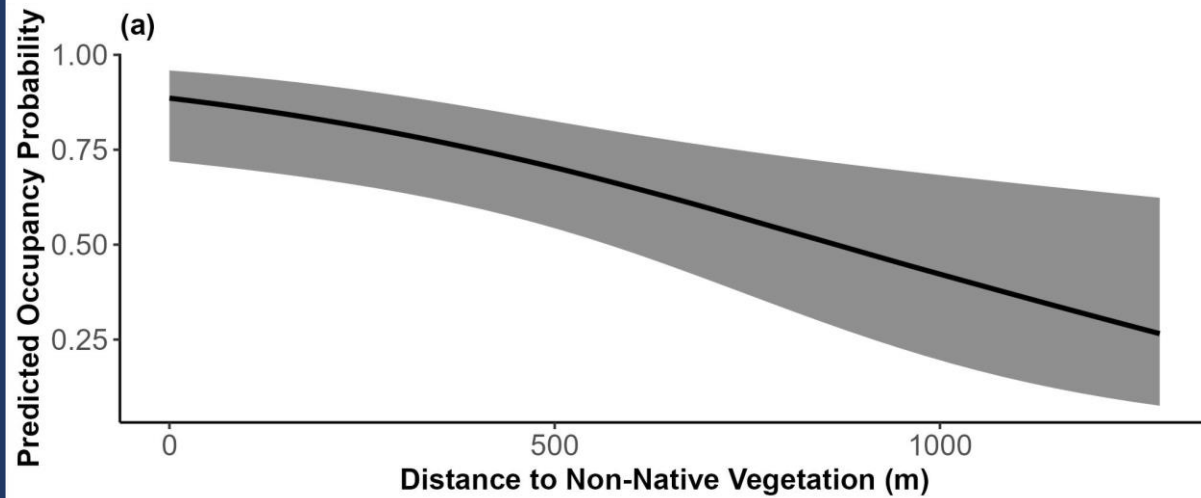
Study sites



Guy Fawkes River National Park –
Paddysland

Oxley Wild Rivers National Park – Table Top

Occupancy Modelling



Paddysland (Guy Fawkes River)

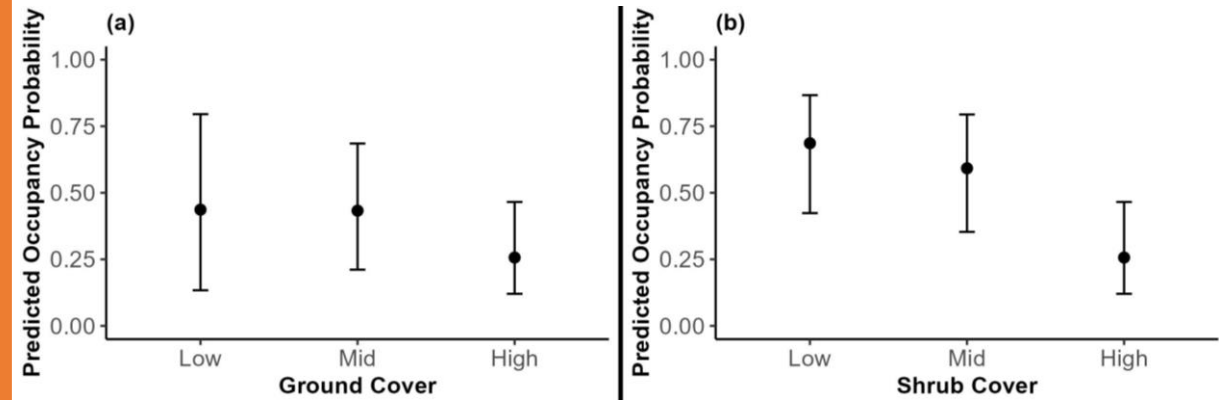
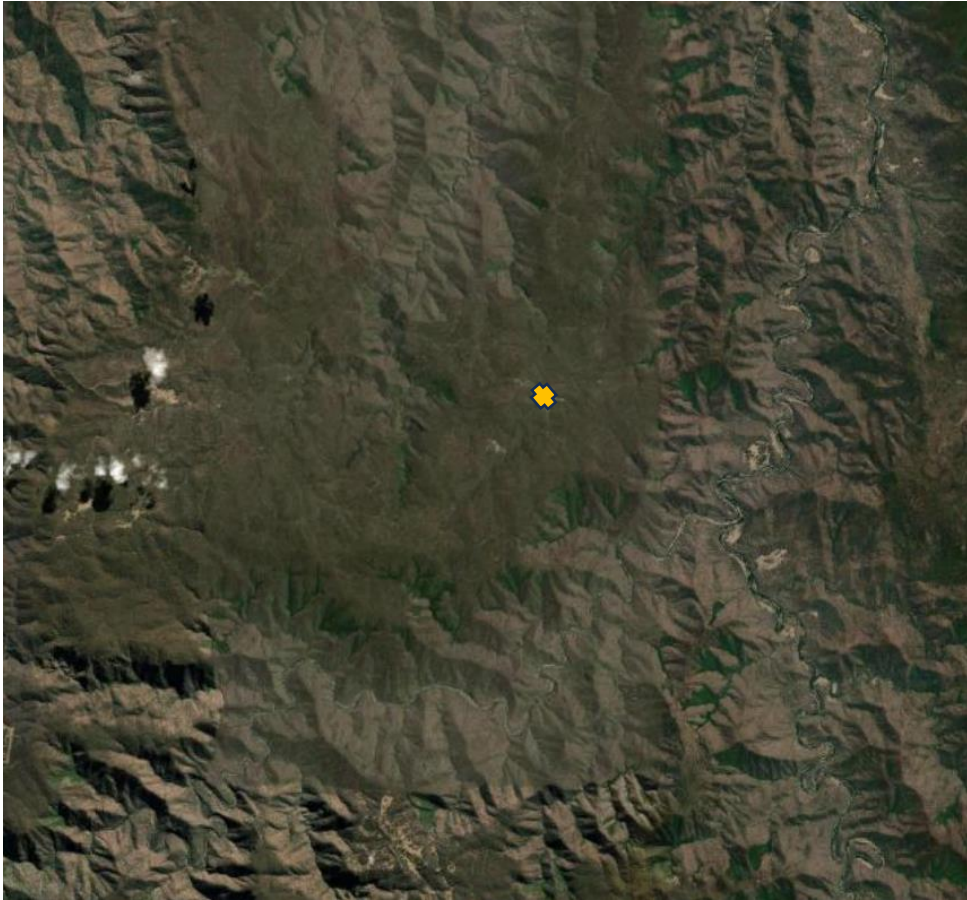


Table Top (Oxley Wild Rivers)

Cleared areas



Cleared areas



Paddysland (Guy Fawkes River)

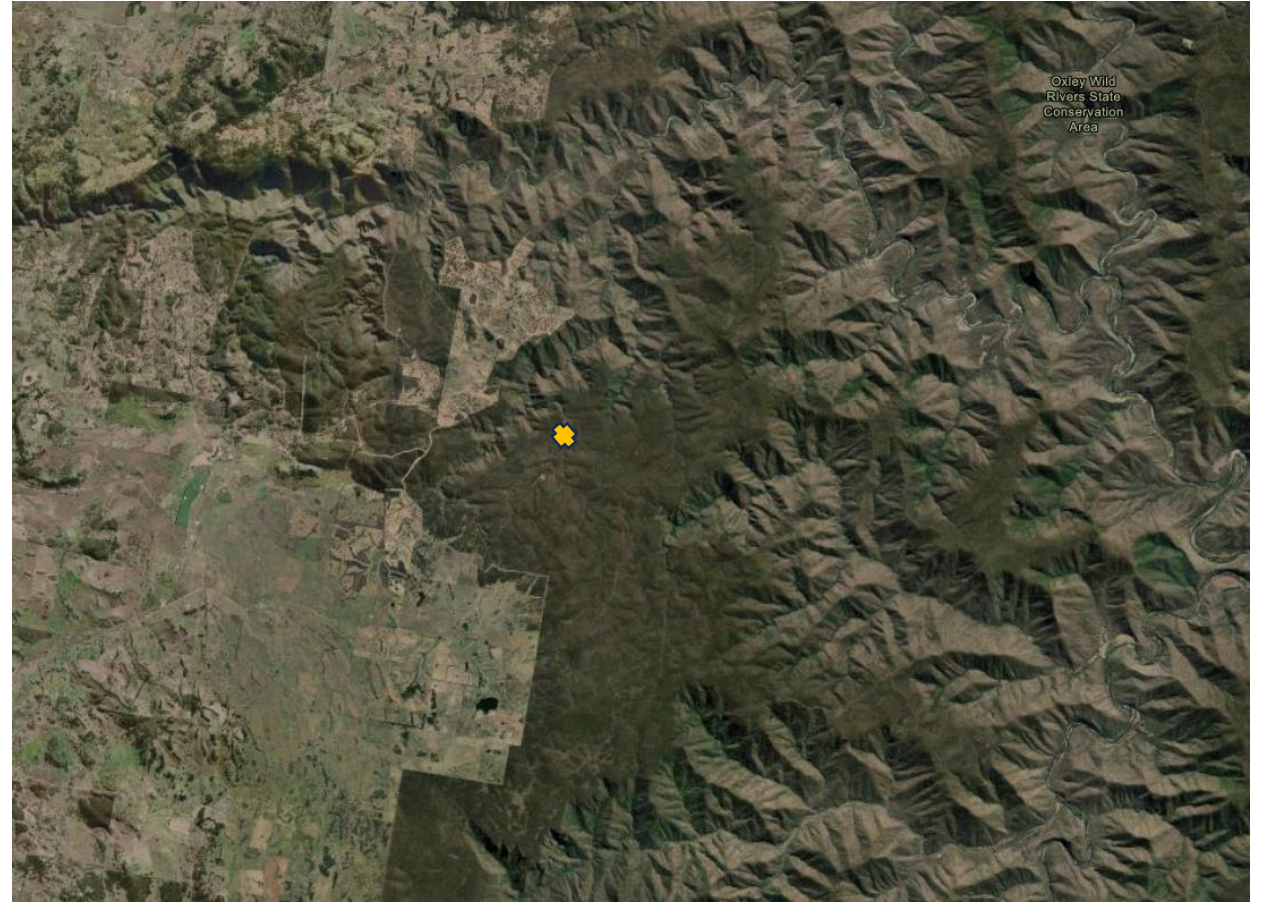


Table Top (Oxley Wild Rivers)

Cage trapping

Pilot study – Guy Fawkes River 2023



- 16 cages within a cleared area
- 9 days pre feeding using carrot
- 3 trap nights (July 11th – 13th)
- 9 hares

Trap night	Hare captures
Night 1 - July 11 th	3
Night 2 - July 12 th	2
Night 3 - July 13 th	4



Guy Fawkes River – 2024



Main paddock 3 ha + gullies

- 50 cage traps
- 25 cage traps in open cleared areas
- 25 cage traps located 50m from the forest edge
- 70m spacing
- Bait: carrot or lucerne hay

Oxley Wild Rivers – 2024



4 ha



1.7 ha

50 cage traps placed at 50m intervals within two separated cleared areas within Oxley Wild Rivers National Park. Two areas are 900m apart.

May 14th
open traps

May 16th – May 24th
May 24th HARE!
Night 10

August
more trapping

Keep going..

New plan - netting



May 15th
Night 1
No hare - PANIC

July
more trapping

August 24th HARE!

September
Total possum
count 2024 -
234 🙄

Guy Fawkes River National Park

Both

Oxley Wild Rivers National Park

New approach needed – netting?



Olivia and I dressed in camo ready to net hares.
Photo: Carrie Doyle

- Telescopic landing net 1.9m (Pryml, BCF)
- Uses hare 'escape response' – bed down and camouflage



We got one!



Female European hare
(3.35kg)

Caught 12th September at
4:45am,

Released at 5:10am

By catch count – 2024

- 234 brush tail possums
- 34 birds (bower, currawong, butcher)
- 3 red necked wallabies
- 3 hares (2 collared)
- 1 piglet



Bower bird release at Oxley Wild Rivers National Park.
Photo: Olivia Kimber

Netted hare – Oxley Wild Rivers 2024



- “Moira”
- Collared 12th September
- One point
- Never to been seen or heard again



2025 trapping – Oxley Wild Rivers



Cameras



TTH07
2025-04-17 17:08:25 M 1/10 17°C



TTH06

Cages

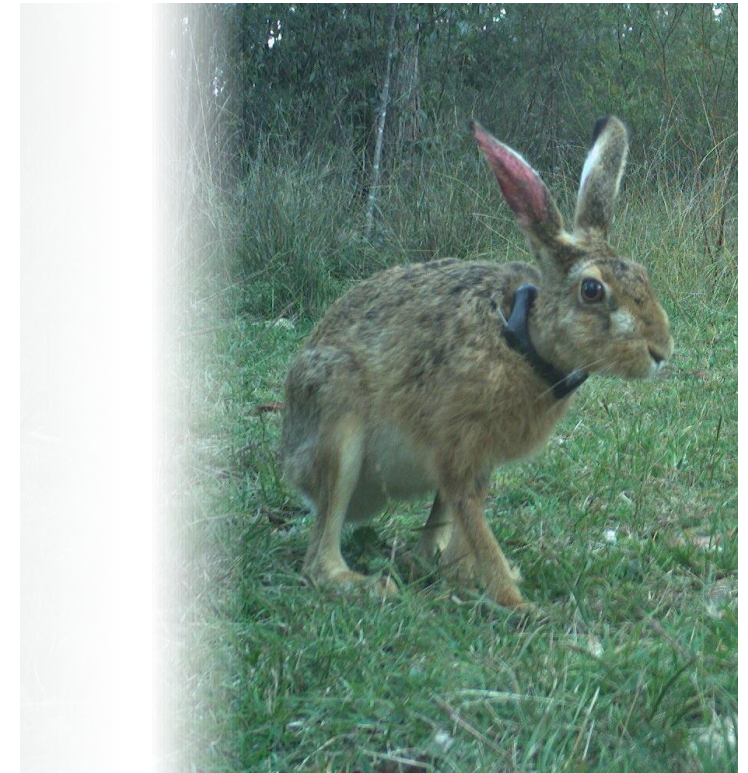
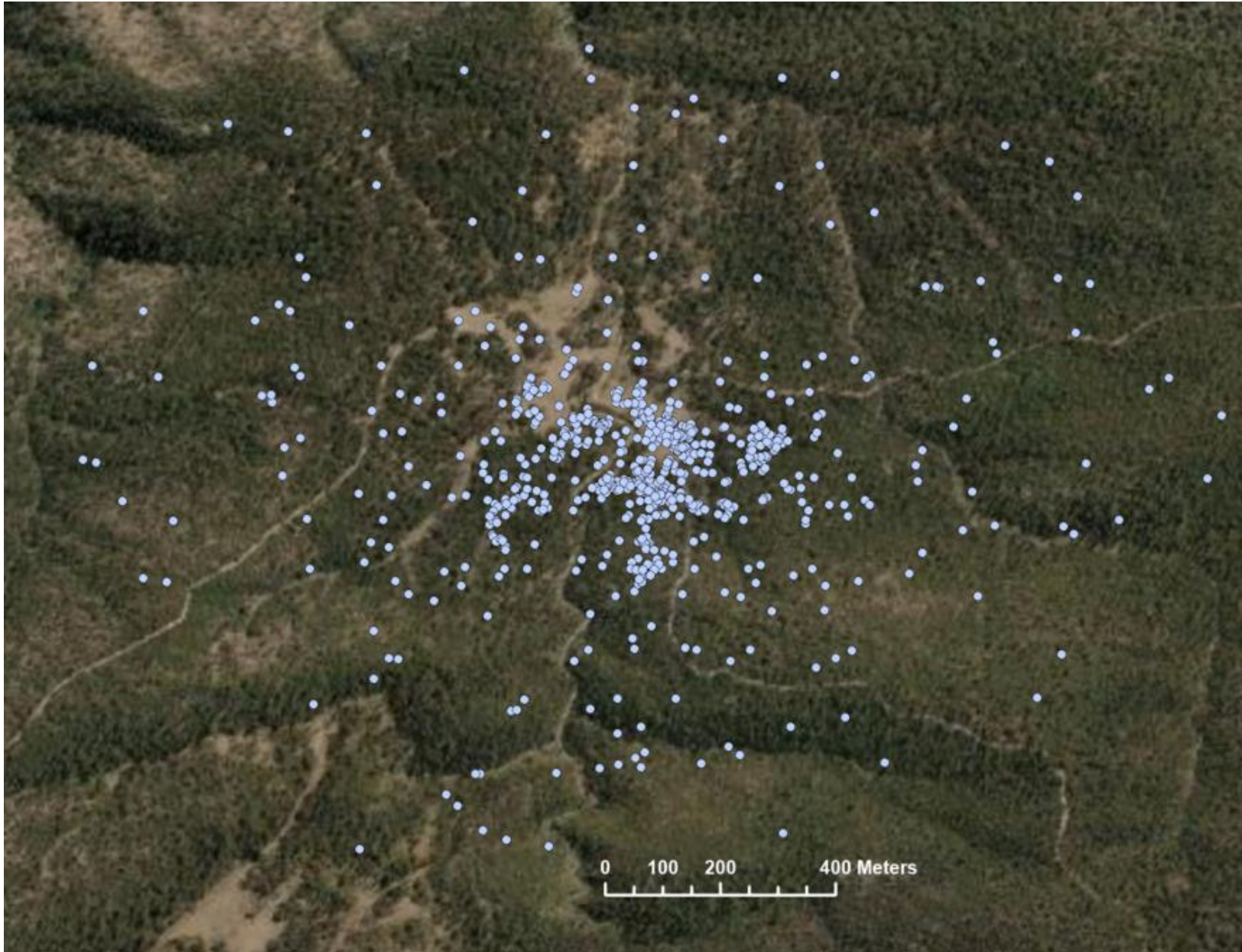


Collaring trapping:

8 nights in May
2 nights in June

Maggie

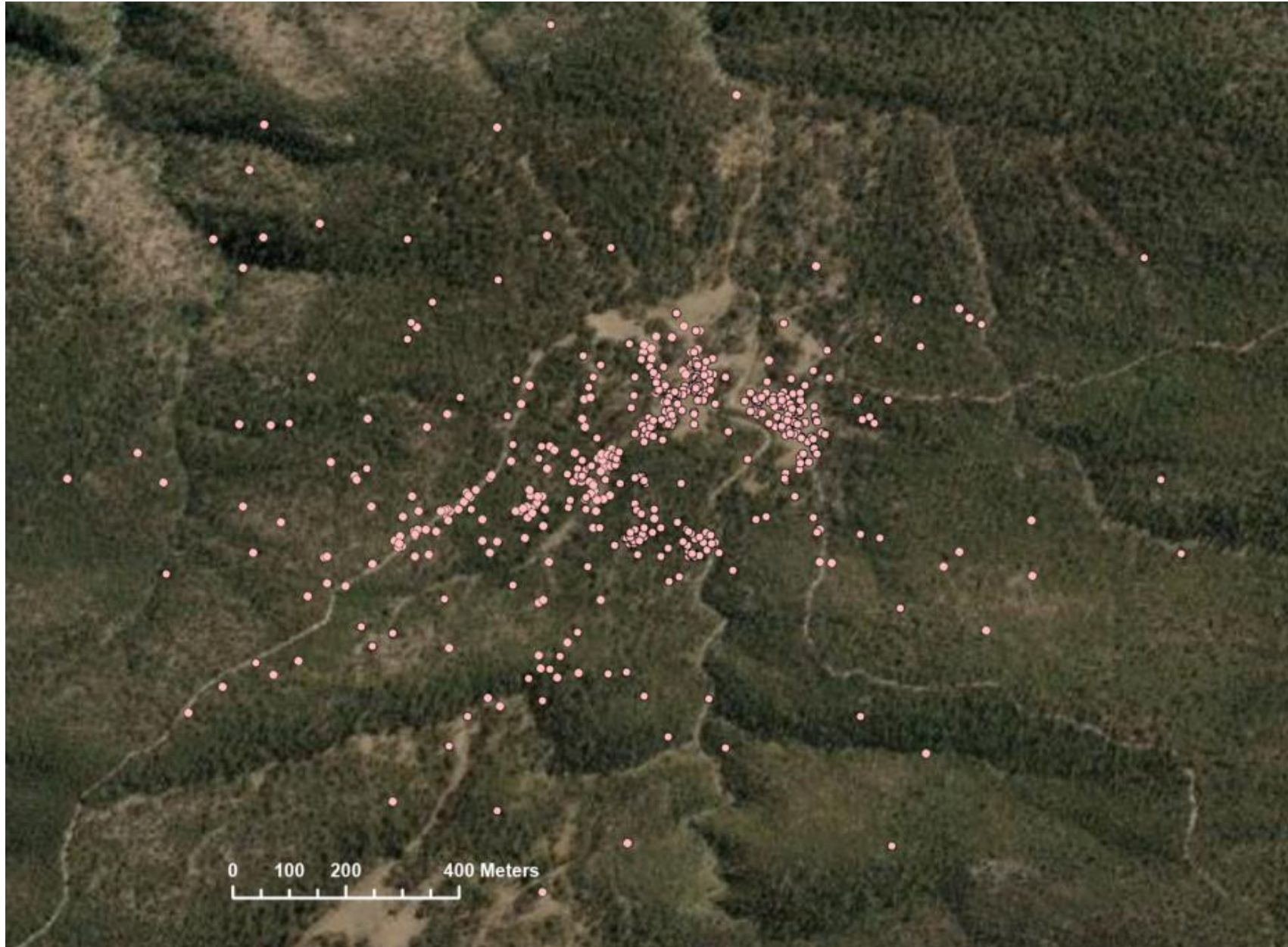
- Caught 11 and collared 3





Oliver

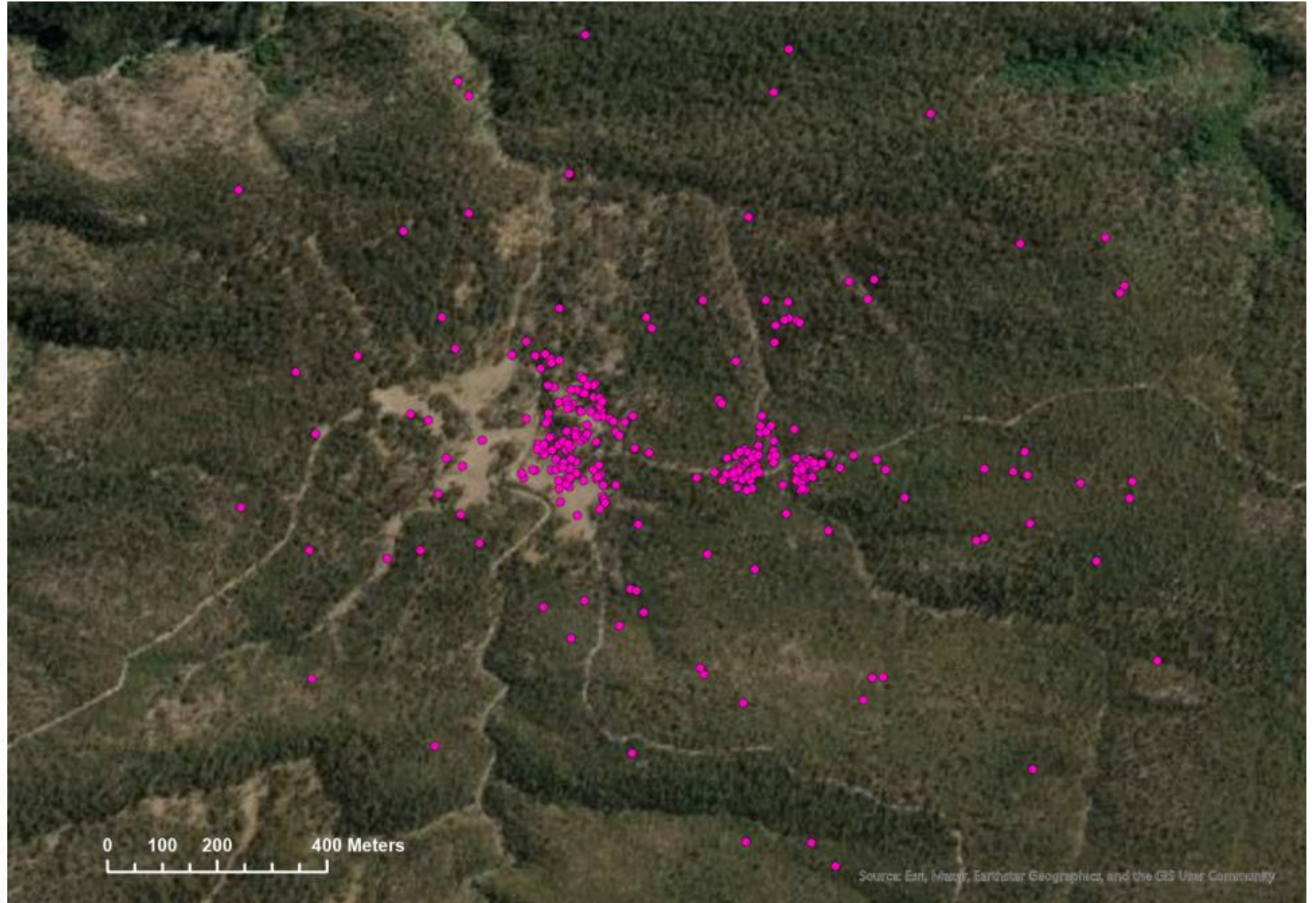
- Caught and collared twice
- Only male collared





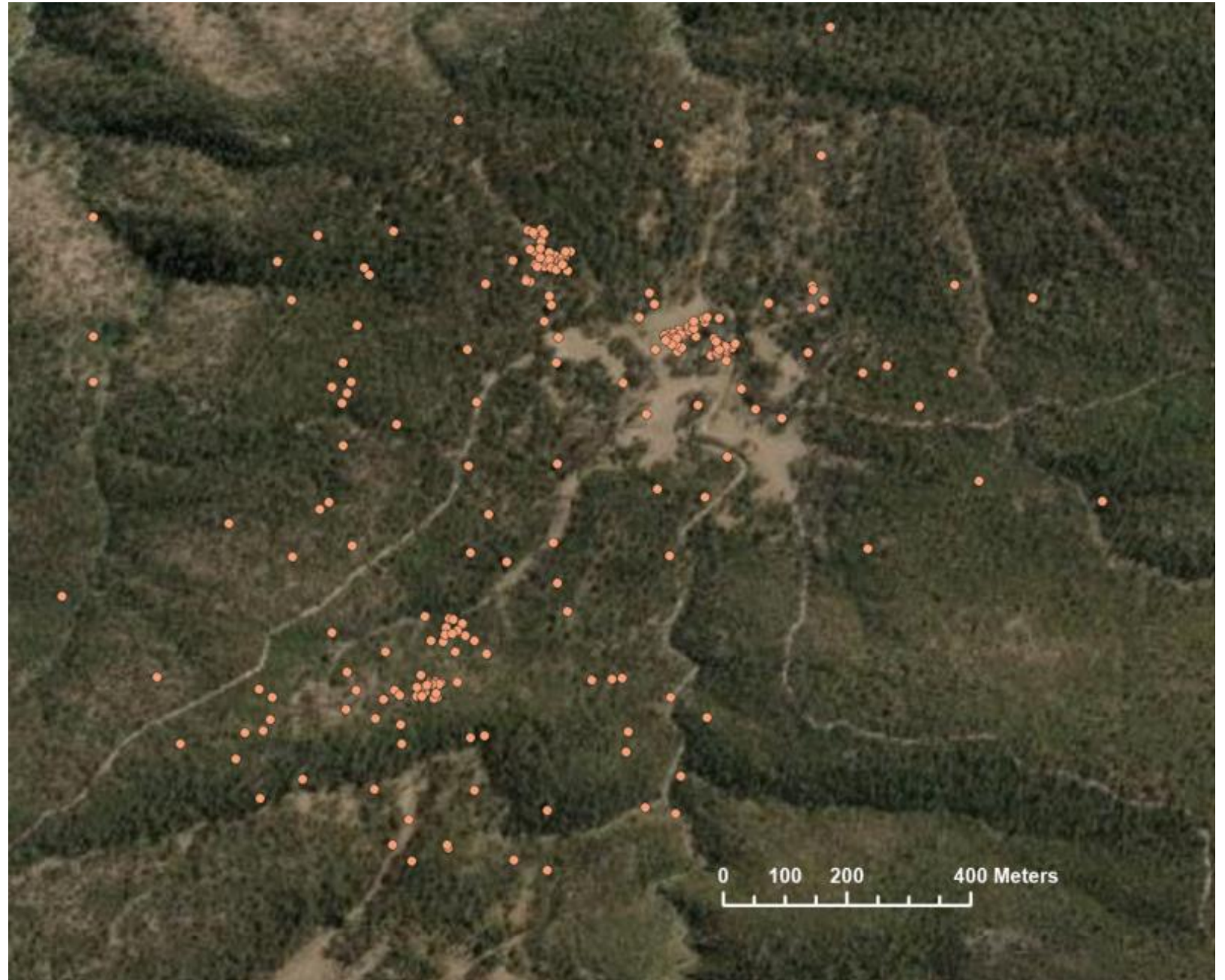
Violet

- Caught and collared once



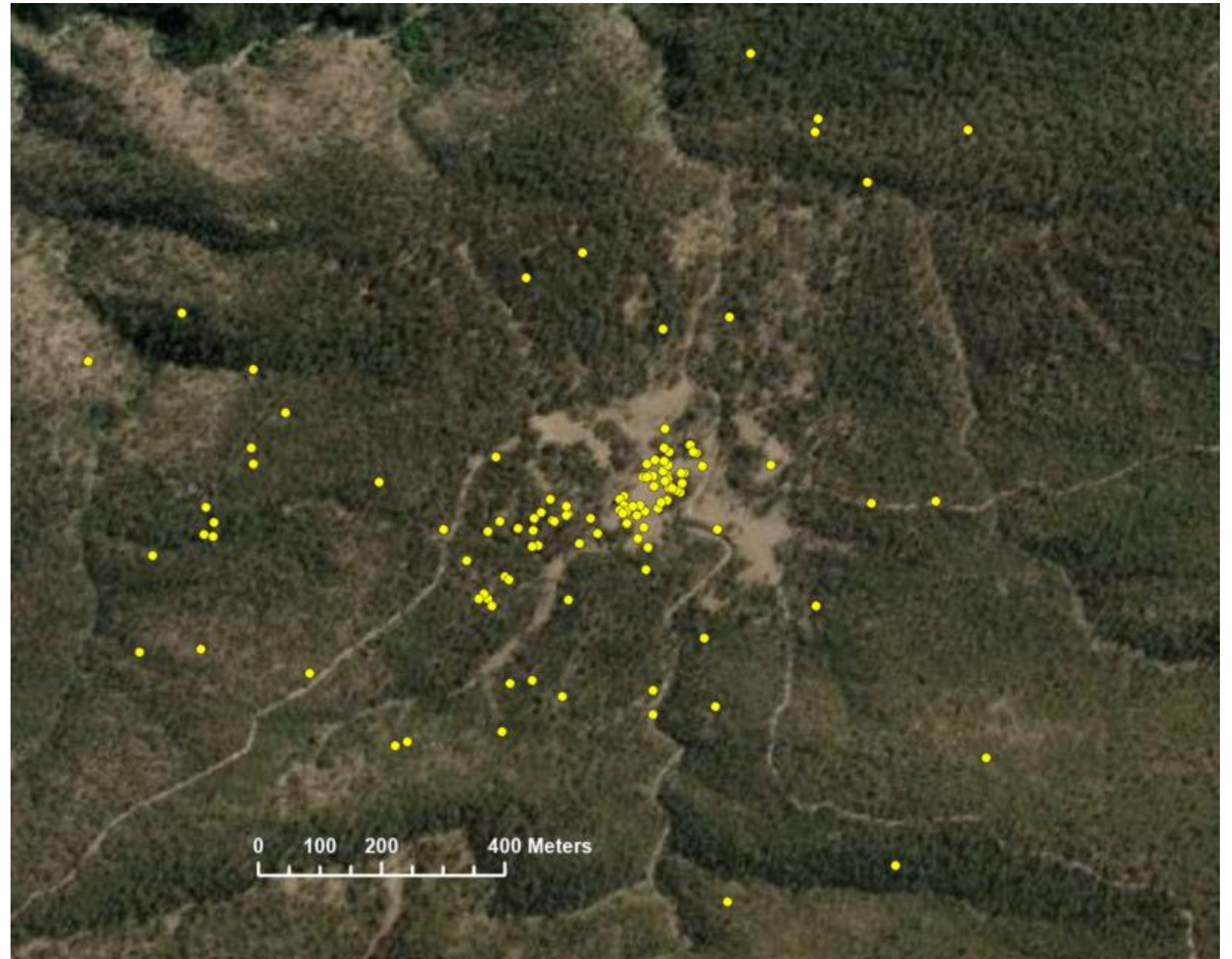
Isla

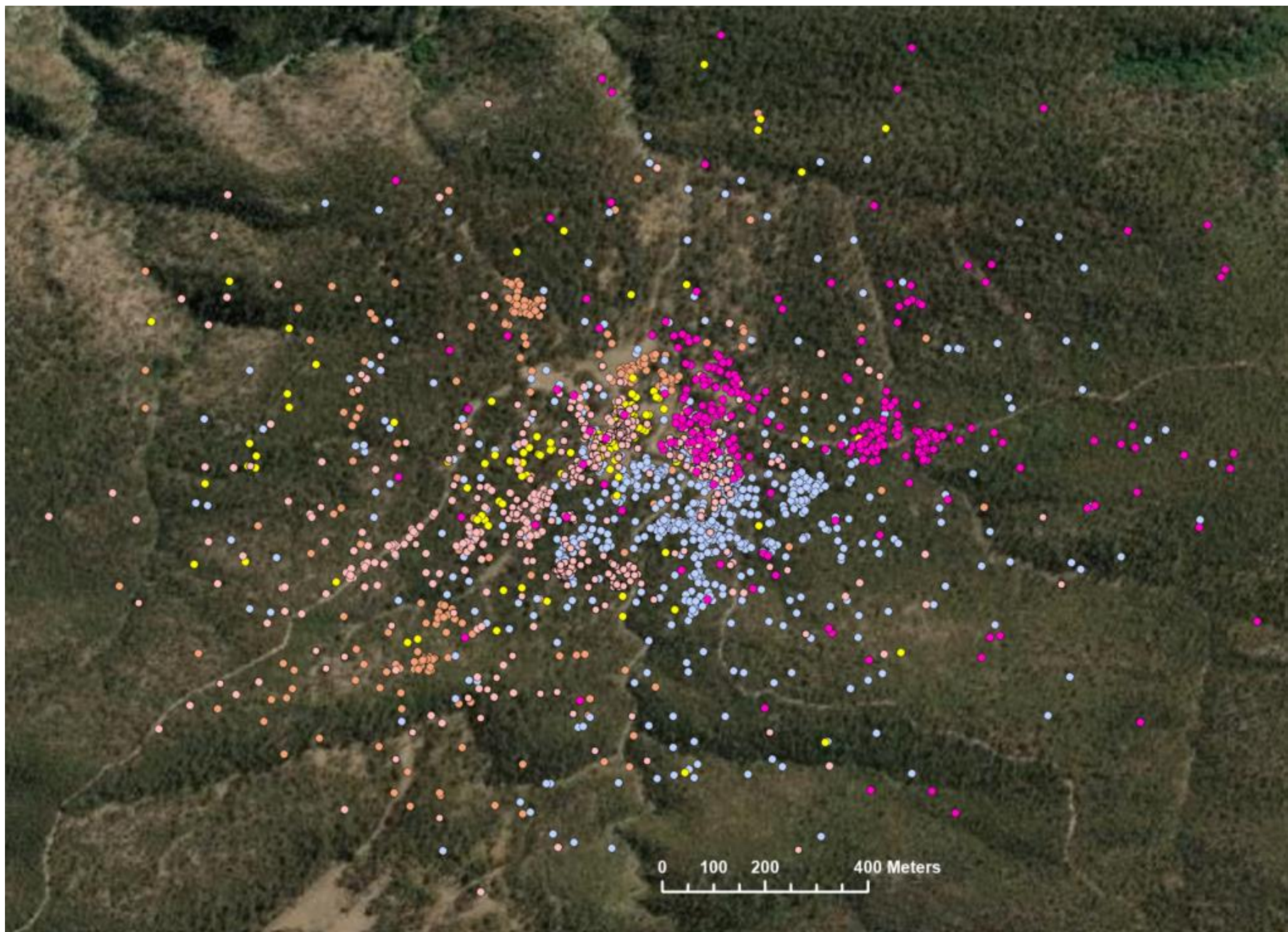
- Caught and collared once



Maxine

- Caught and collared once
- Deceased 7 days post collaring





Extras

- Alex (leveret)
- Callum (sub adult male)
- Biscuits (one eye)



Almost caught a rabbit





Thank you

