

The northern hopping-mouse on Groote Eylandt... and beyond?

Dr Rebecca Diете



Australian hopping-mice
(*Notomys* spp.)

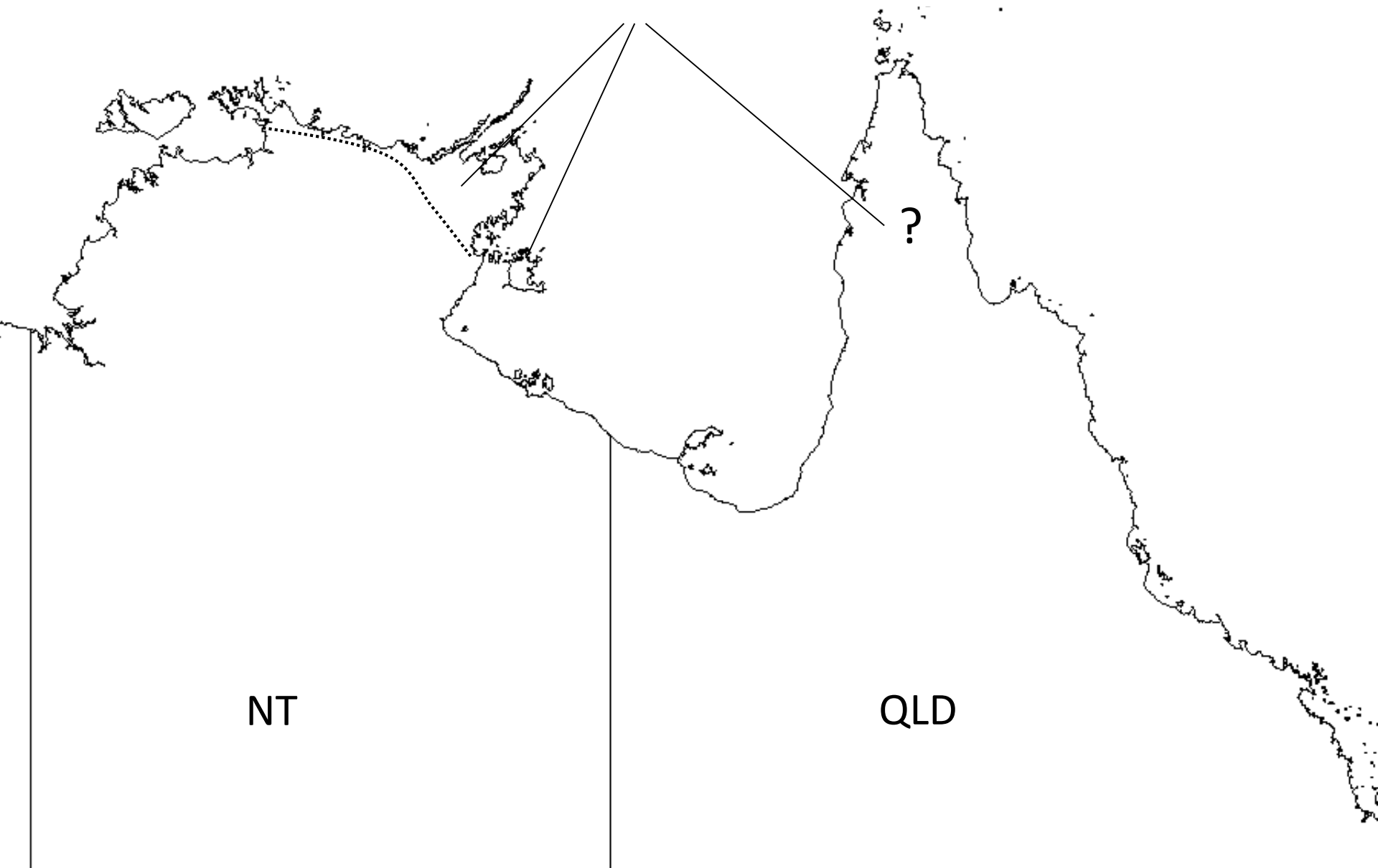


Threats to hopping-mice

Species	Status		Potential threats				References
	EPBC	IUCN	Introduced predators	Introduced herbivores	Land clearing	Fire	
<i>N. alexis</i>	-	LC	X				Morris et al. 2008a
<i>N. aquilo</i>	V	En	X		X	X	Woinarski 2004; Woinarski 2008
<i>N. cervinus</i>	-	V	X	X			Brandle et al. 2008
<i>N. mitchellii</i>	-	LC		X	X		Morris et al. 2008b
<i>N. fuscus</i>	V	V	X	X			Moseby & Menkhorst 2008; Dickman et al. 2000
<i>N. amplus</i>	Ex	Ex	X	X		X	Baillie 2008a; NRETAS2006a
<i>N. longicaudatus</i>	Ex	Ex	X	X		X	Morris & Burbidge 2008a; NRETAS 2006b
<i>N. macrotis</i>	Ex	Ex	X		X		Morris & Burbidge 2008b
<i>N. mordax</i>	Ex	Ex	X				Baillie 2008b;
<i>N. robustus</i> *	-	-		Unknown			Mahoney et al. 2008

* Known only from skeletal remains in owl pellets. It is presumed to have become extinct sometime within the last 200

NHM past and current distribution

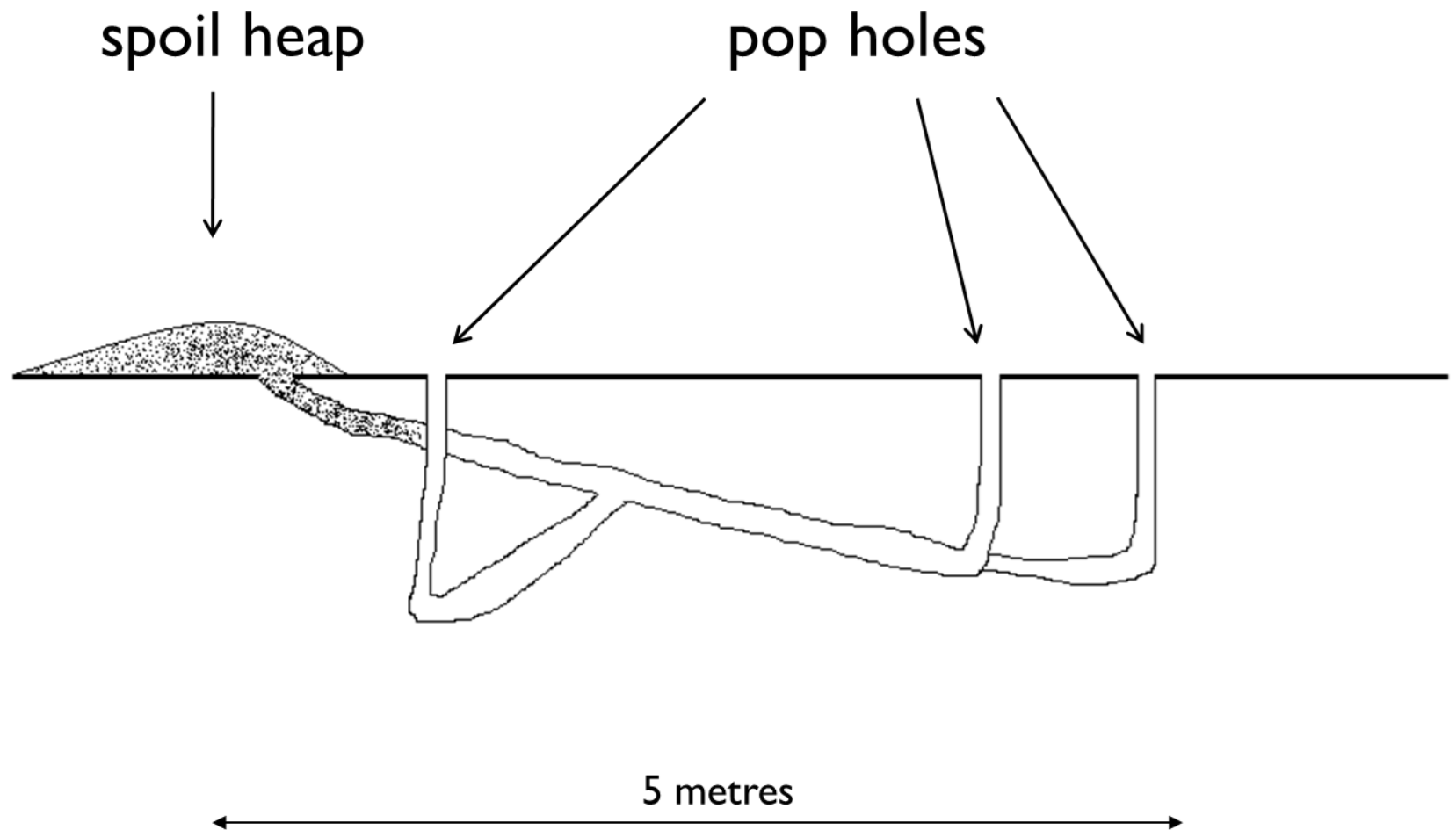




“Conventional trapping methods were utterly unsuccessful with this species... and their only reaction to traps was to kick sand on them.”

D. H. Johnson, 1964

Burrow systems







Key research objectives

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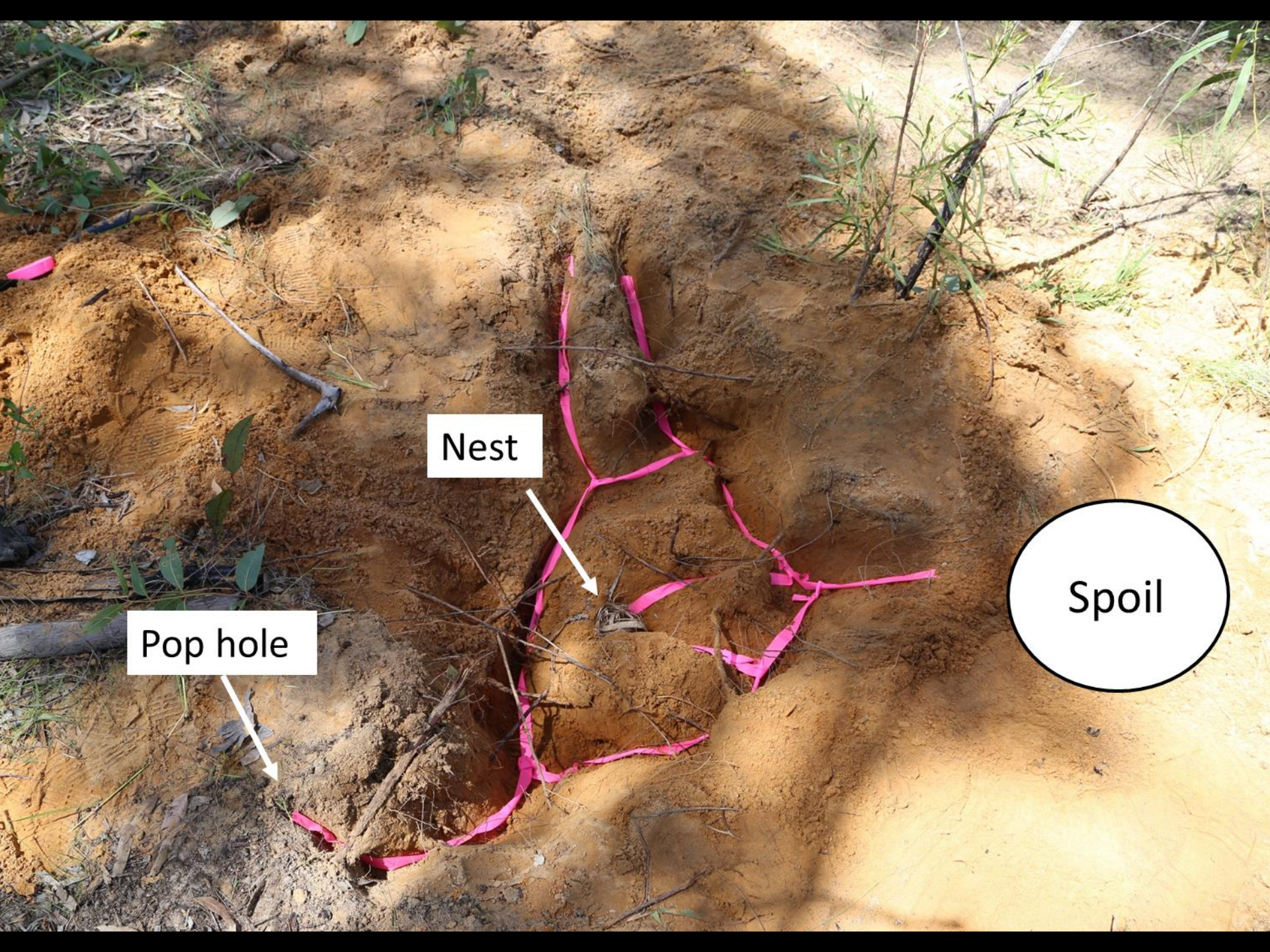
Key research objectives

- Investigate the effectiveness of spoil heaps as an index of presence or abundance;
- Trial other survey methods (camera traps and pitfall traps);
- Describe habitat use and population ecology.

Key results

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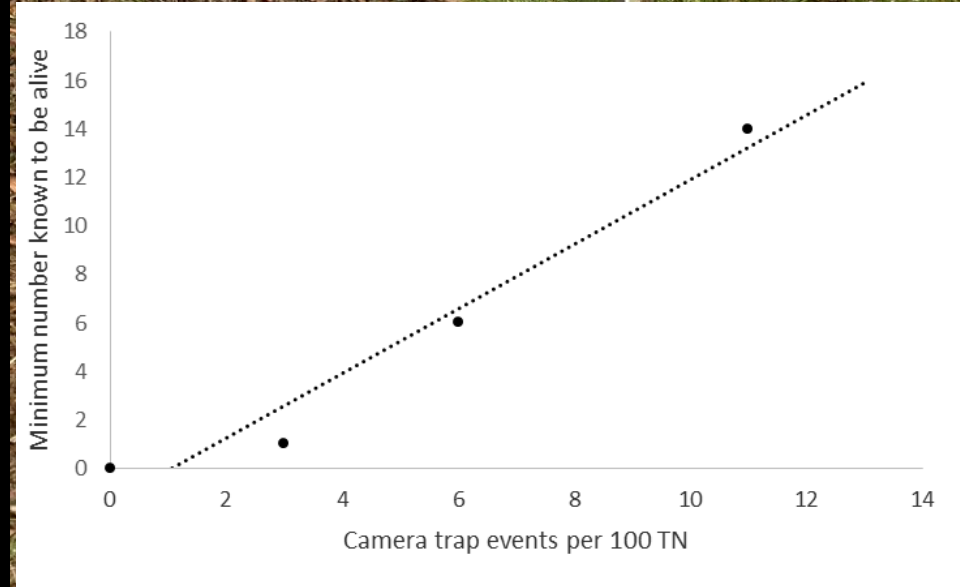
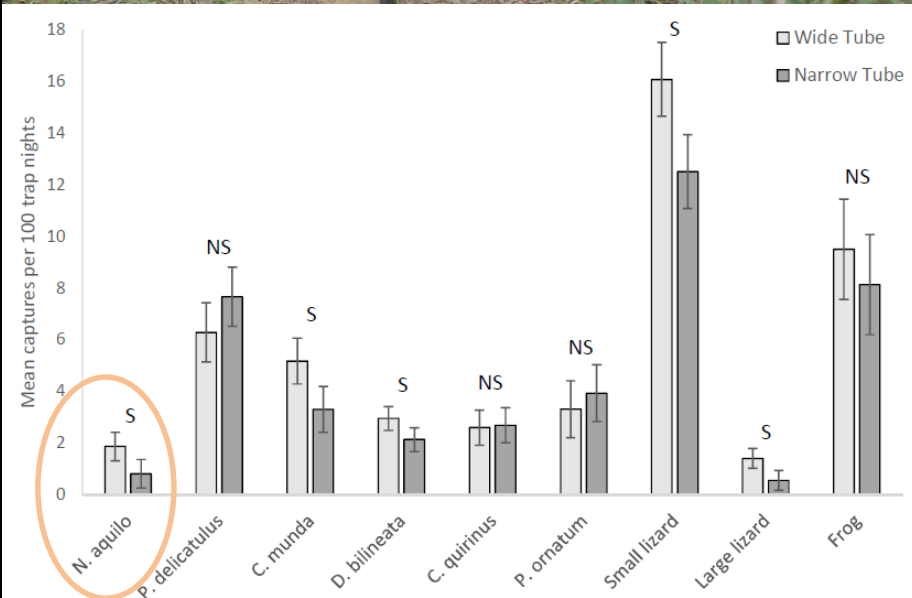


Nest

Pop hole

Spoil



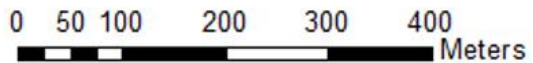
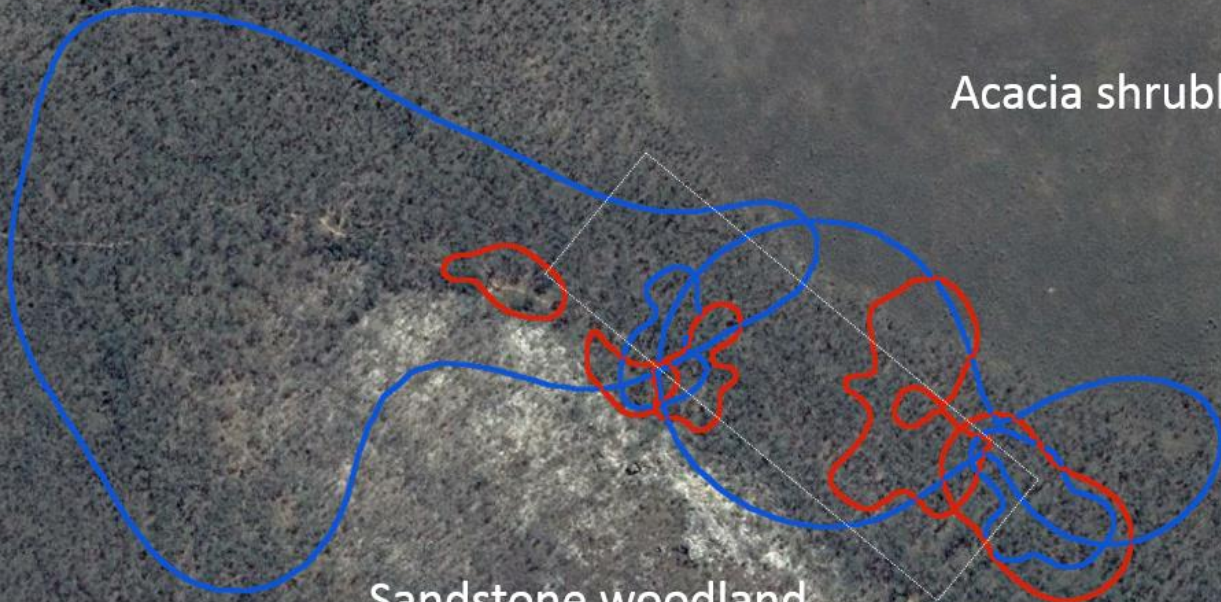


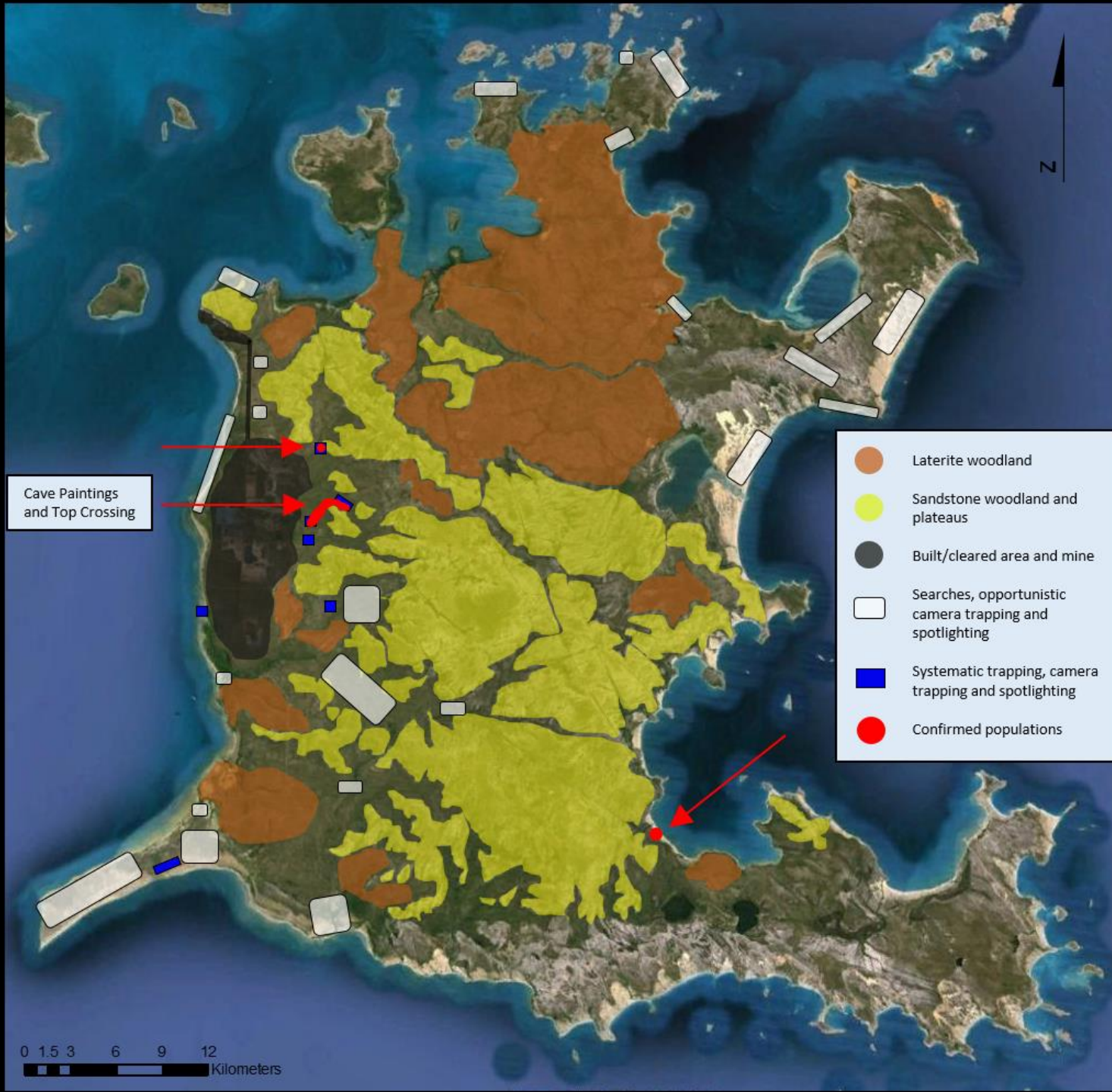


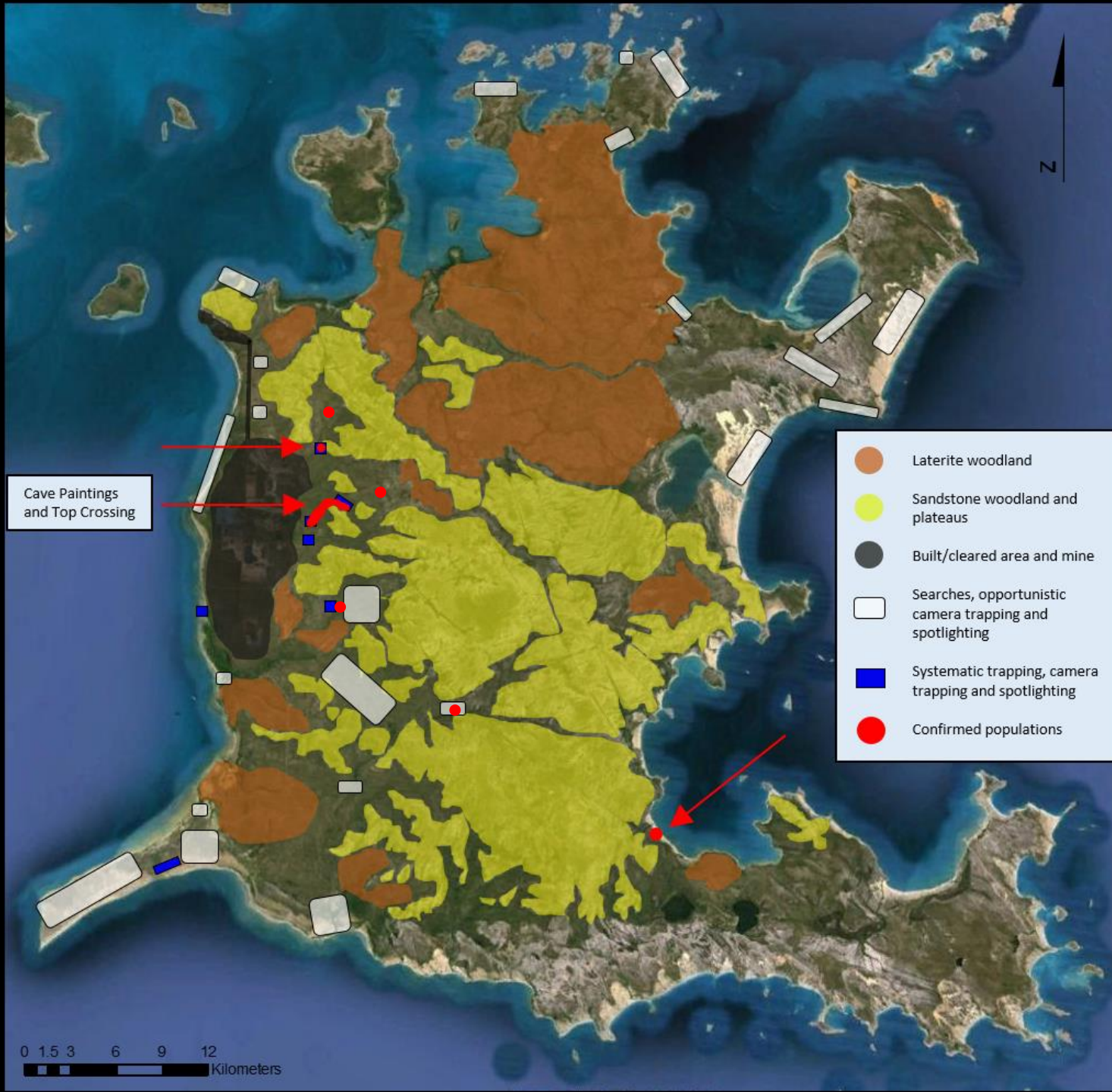
Eucalypt woodland on sand

Acacia shrubland

Sandstone woodland







Cave Paintings
and Top Crossing

- Laterite woodland
- Sandstone woodland and plateaus
- Built/cleared area and mine
- Searches, opportunistic camera trapping and spotlighting
- Systematic trapping, camera trapping and spotlighting
- Confirmed populations

0 1.5 3 6 9 12
Kilometers

What is the most effective way to detect the presence of NHM?

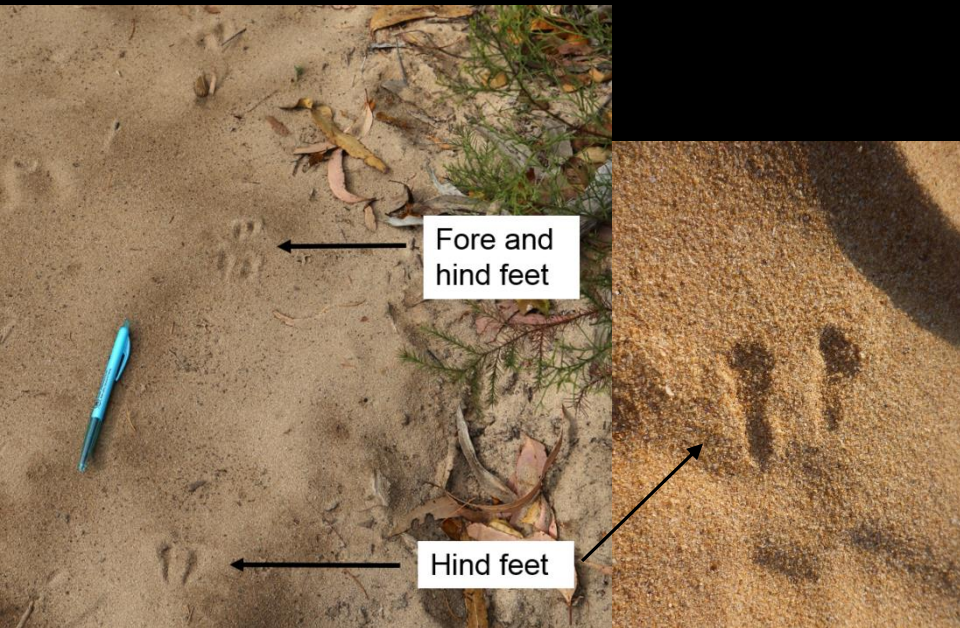


Look for spoil heaps



- 50 cm – 1 metre at their longest length
- Round or oblong in shape
- Fresh mound or flat and weathered
- No hole where the soil could have come from

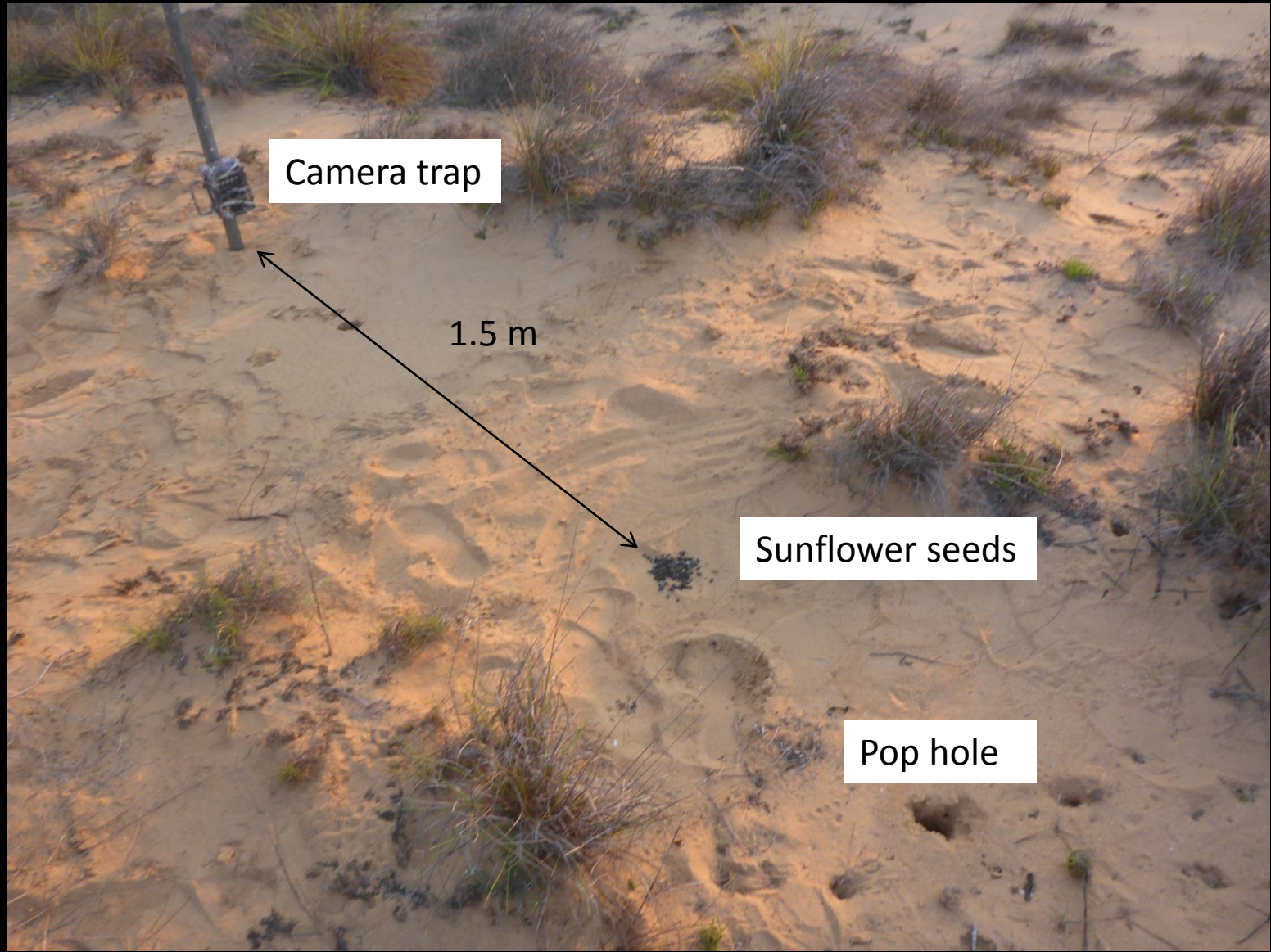
Other clues: pop holes and tracks



- Tracks, often bipedal
- 20 – 60 cm apart when bounding

- Pop holes 2.5 – 5 cm
- Round, vertical
- 1 – 5 m from spoil heap

Confirm NHM with camera traps



What's at stake?



What's at stake?

- Conservation status?
- Distribution?
- Extra management or protection?



Acknowledgments

