



# Looking after threatened species and controlling cats: the Anangu way

Kiwirrkurra Indigenous Protected Area

Presented by Jodie Ward, Yurrkultji Napangarti and Ed Blackwood

# Cats are a big problem

They eat all our native wildlife and drive them to extinction

*Great Desert Skink  
found in cat's  
stomach*



*Cats looking  
for food in  
native animal  
burrows*

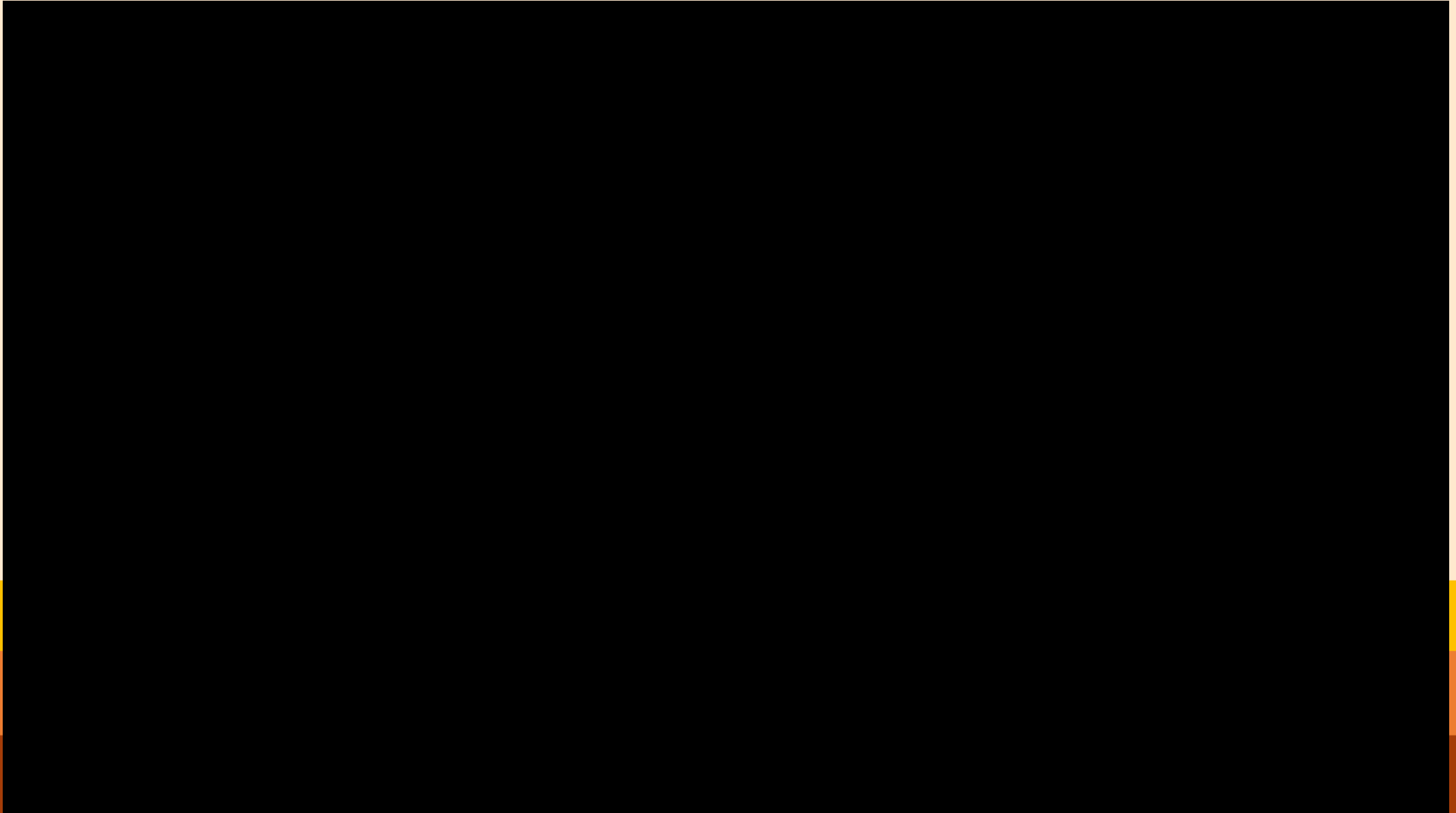


*Cat with a threatened Great Desert Skink on the  
APY Lands SA*

*Photo credit: APY Rangers*



# How we control cats: Traditional Hunting





# Why we hunt them

*Connection to country*



*Teaching the next generation how to track*



*Kuka Palya!*





# Protecting threatened species



*Bilby / Ninu*



*Great Desert Skink / Tjalapa*



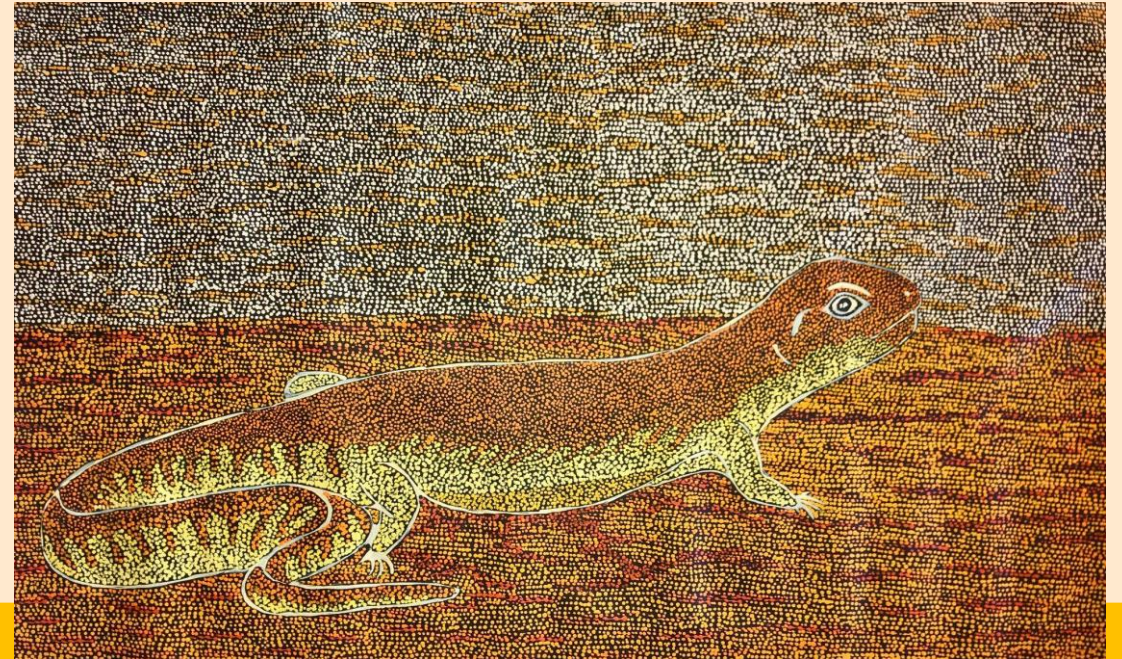
# Why we protect them: *Tjukurrpa* (Dreaming)

These animals are important to our Tjukurrpa (dreaming) stories

*Tjitirurr: Ninu Dreaming*



*Tjalapa painting by John T West*



*Tjalapa* and *Ninu* were also an important food source but we don't eat them as much anymore so we can look after them



# Why we protect them: *Tjukurrpa* (Dreaming)

*Tjalapa and Lungkata Tjukurrpa* (Great Desert Skink and Blue Tongue Dreaming Song)



*Tjalapa*



*Lungkata*



# Other ways we protect threatened species: Fire

Fire breaks near threatened species areas stop wildfires destroying habitat

Fire promotes bush foods for threatened species

More old growth spinifex means more protection from cats





# Other ways we protect them from cats: Two-way science

*Using camera traps to look for cats and foxes at threatened species burrows*



*Looking at contents of cat guts and kuna (faeces) to understand what they eat*



*Monitoring threatened species populations using expert tracking and iPads*





# Teaching others about cat hunting

Rangers from Nyangumarta, Borroloola, Gooniyandi, Ngurrura and Walungurru have all come to learn from us about cat hunting



*Photo Credit: Jacob Loughridge, YMAC*

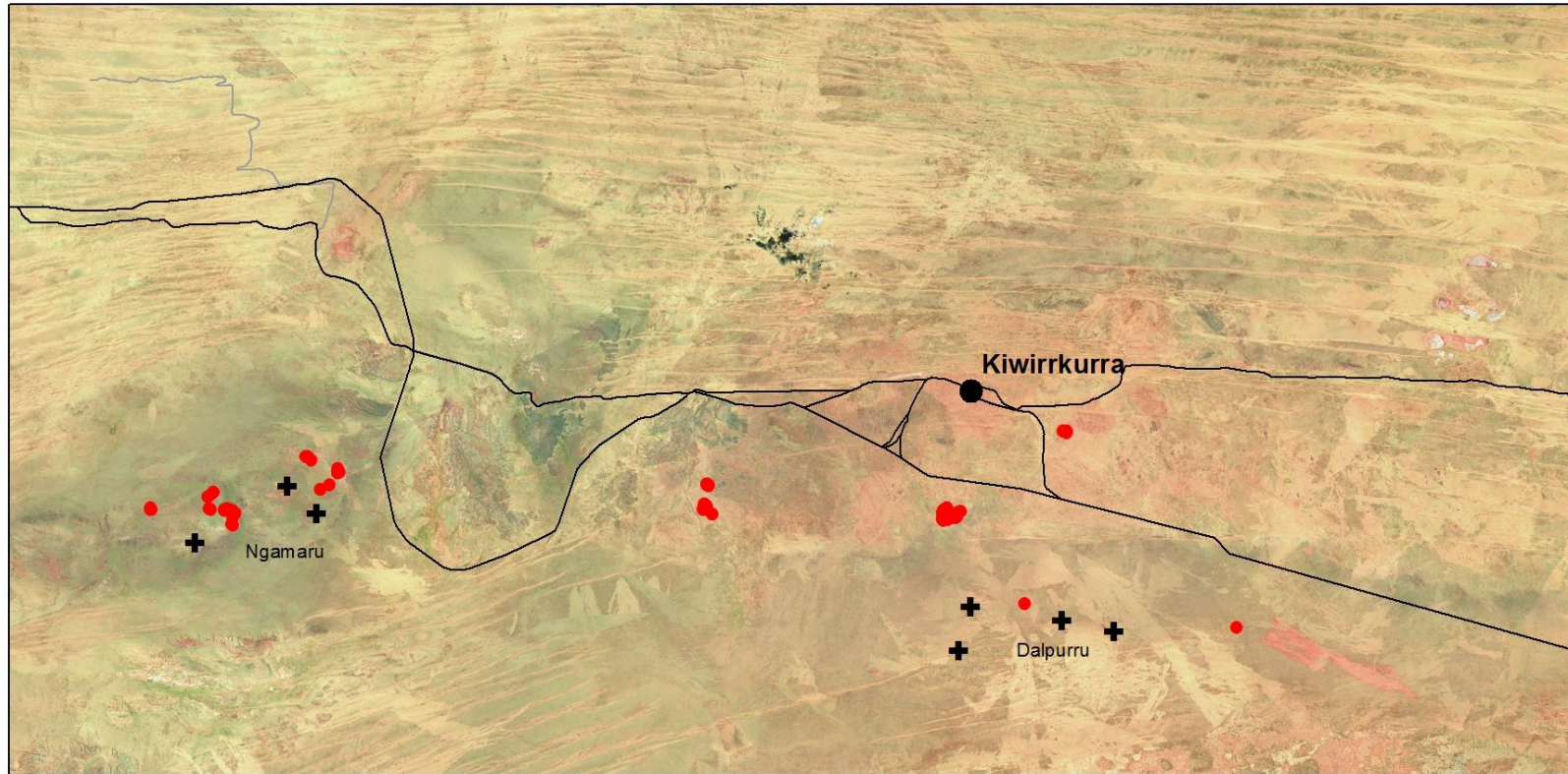


*We even caught one on Gooniyandi country at a Ninu hole*



# Results of cat hunting

Predator control to protect bilbies on the Kiwirrkurra IPA, 2022



## Legend

- bilby 2021-22
- ✚ cats killed 2022

Red dots: Bilby sites

Black crosses: Cat kills

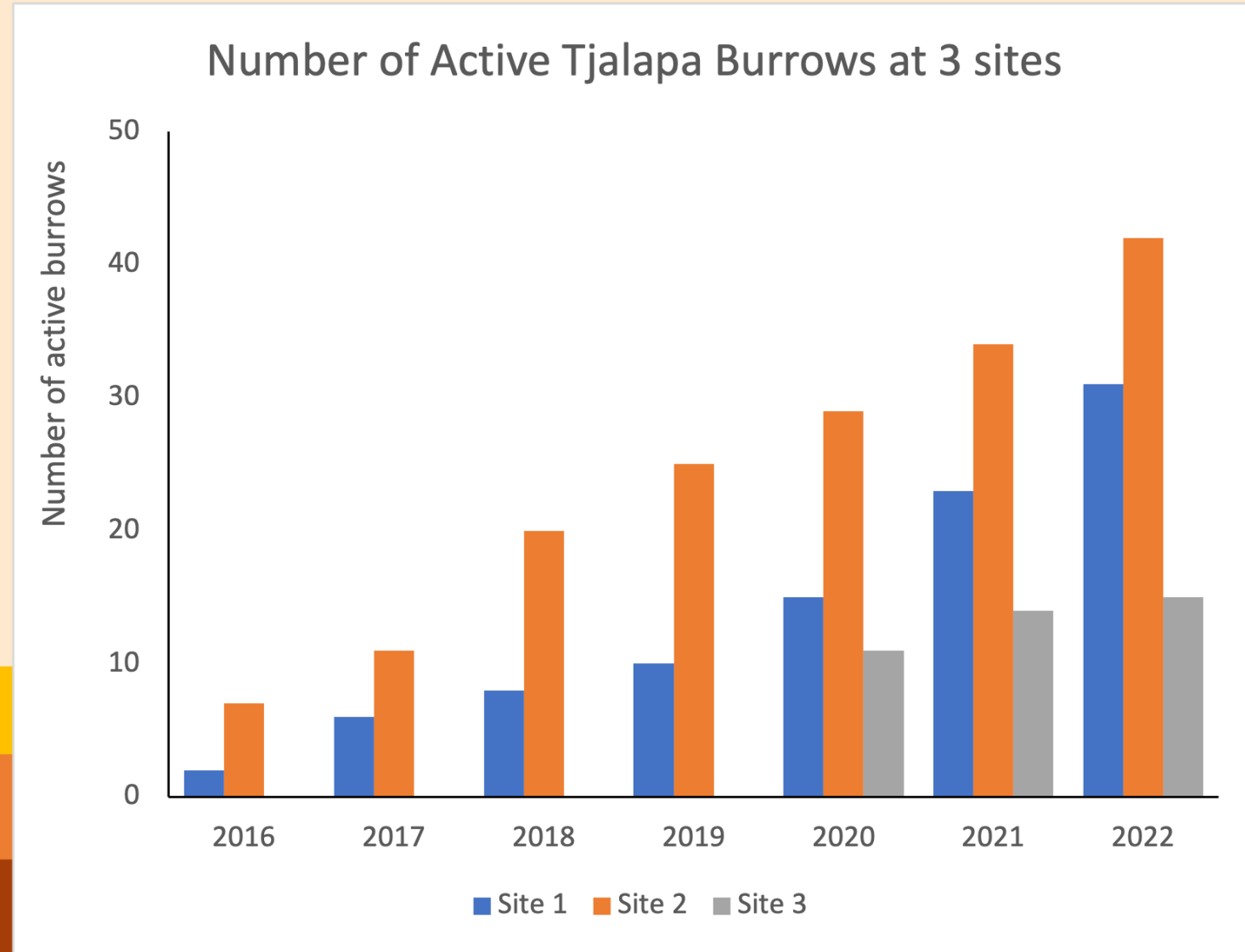


We've caught over 200 cats in 7 years!

# Threatened species are increasing

Ninu and Tjalapa are indicator species showing that the fire management and cat hunting we do is working!

This graph shows the increasing number of Tjalapa burrows at 3 sites on Kiwirrkurra IPA

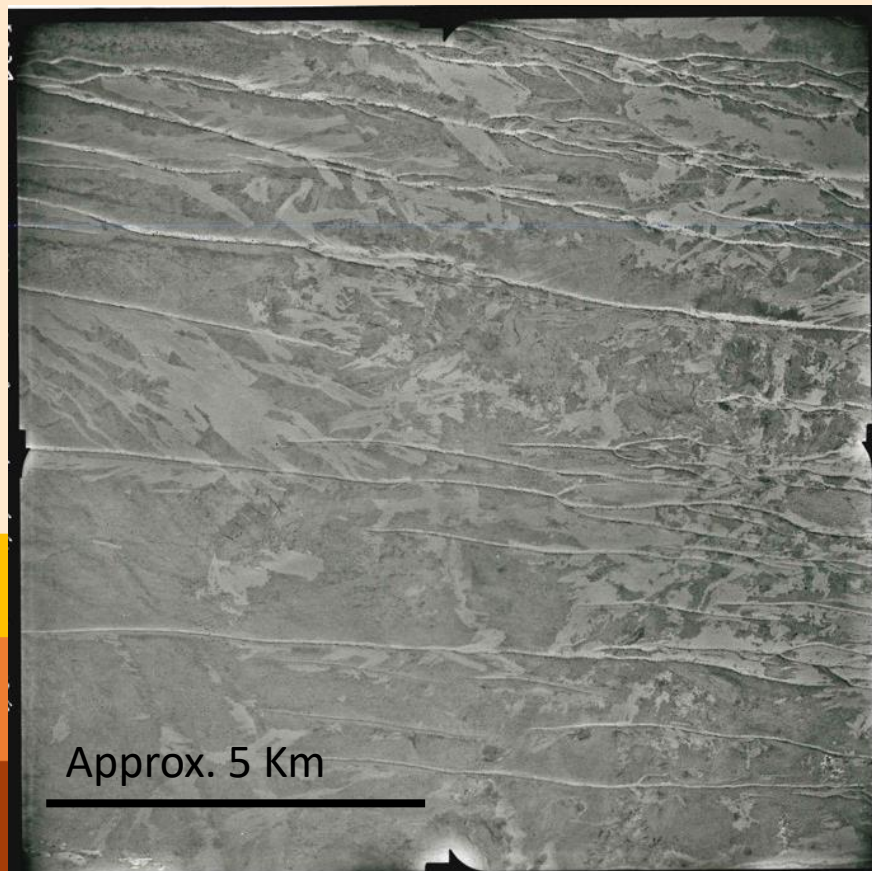




# Fire patterns then vs now

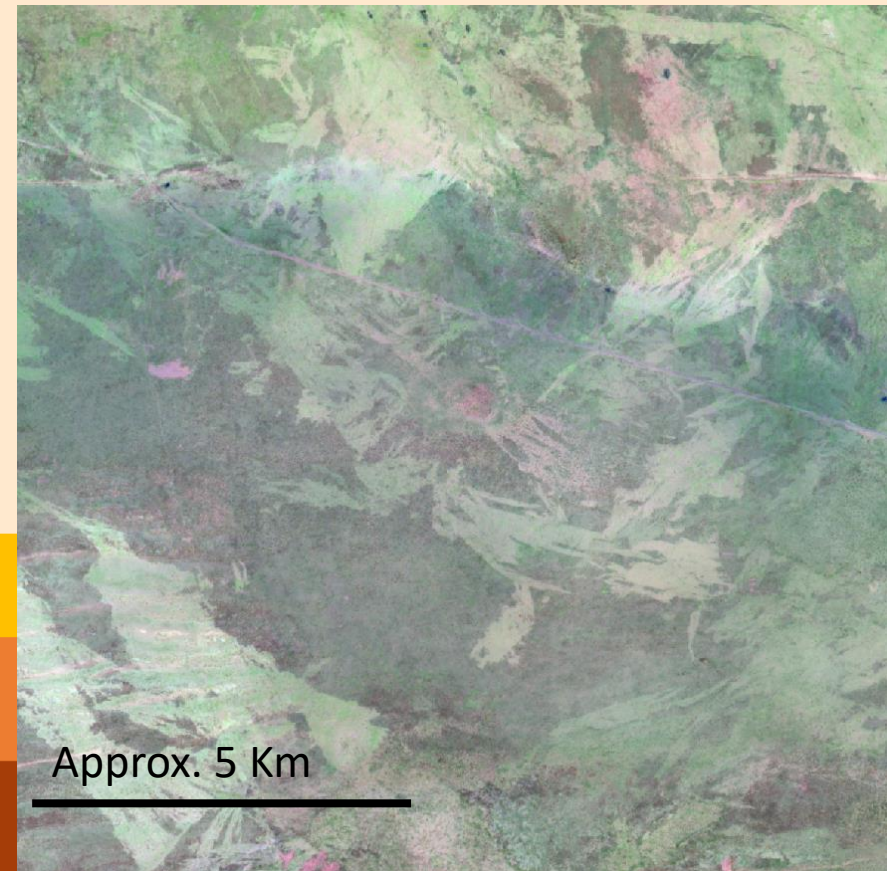
Mean patch size in the 1950s when people lived on country was 64ha (Burrows et al 2006)

*Image of fire patterns on Kiwirrkurra IPA from the 1950s*



Mean fire size around Kiwirrkurra community from 1980-2019 was 125ha  
Mean fire size in unmanaged areas over the same time period is over to 4000ha

*Image of fire patterns around Kiwirrkurra community today*



Both images are the same scale

# Traditional hunting found to be effective

Cat detections at sites in hunting zone were less likely than non-hunting zones

In areas with cat hunting and intensive fire management the populations of Bilby's has persisted while they have disappeared in other areas

Not growing fast enough to fight against extinction - more needs to be done in non-hunting zones

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*Wildlife Research*

<https://doi.org/10.1071/WR20035>

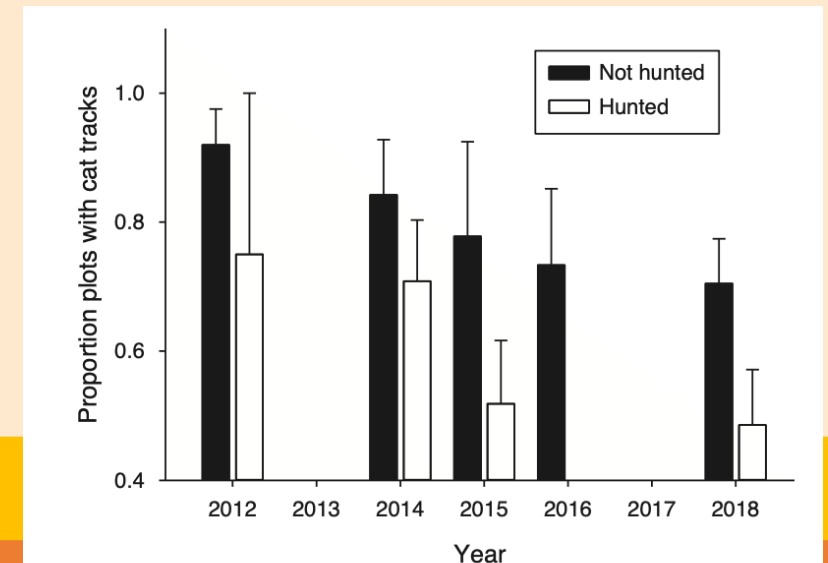
## Is cat hunting by Indigenous tracking experts an effective way to reduce cat impacts on threatened species?

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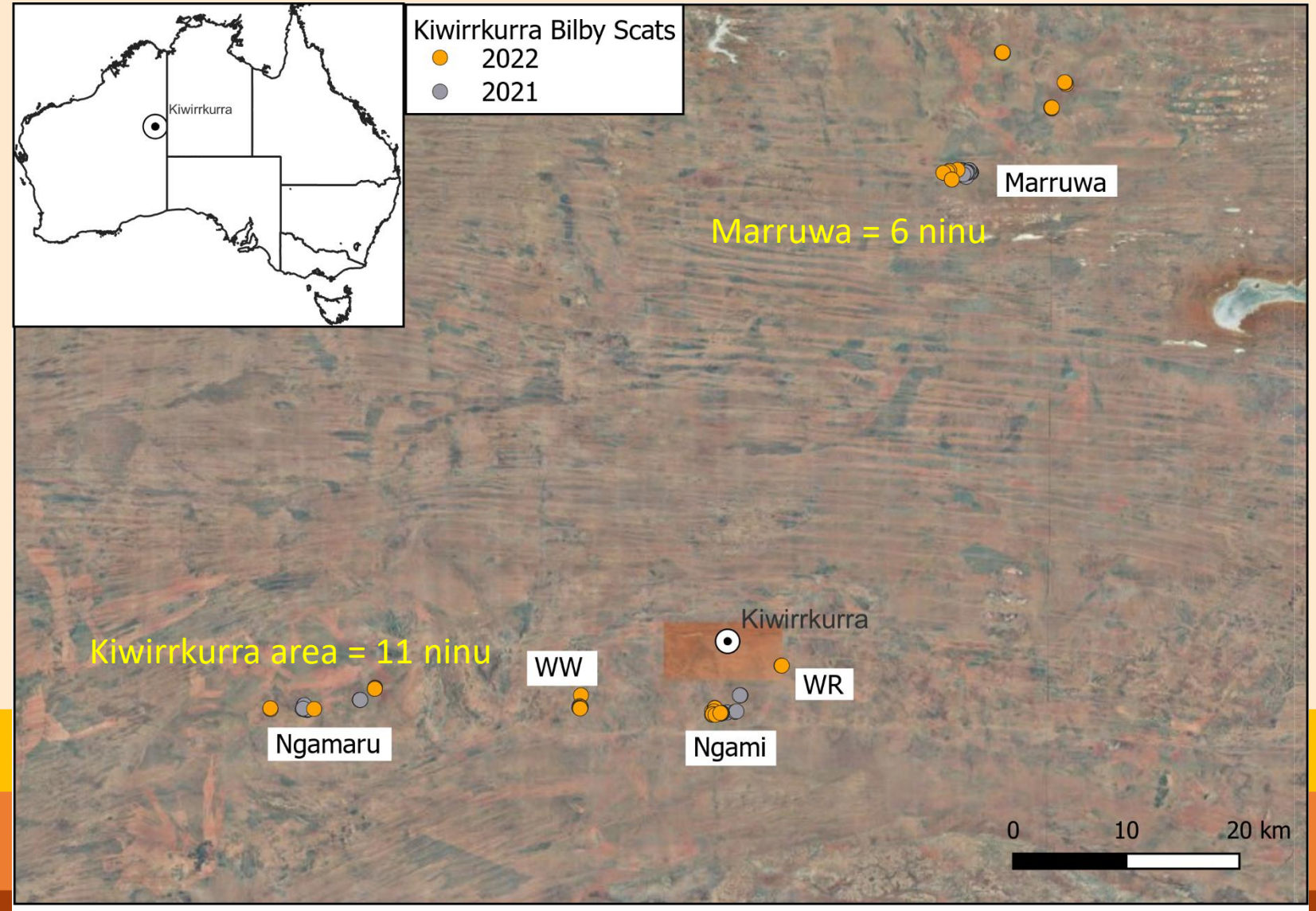


**Fig. 3.** Proportion of 2-ha track plots ( $\pm$ s.e.) where cat tracks were detected in hunted and unhunted areas of the Kiwirrkurra Indigenous protected area, 2012–2018.

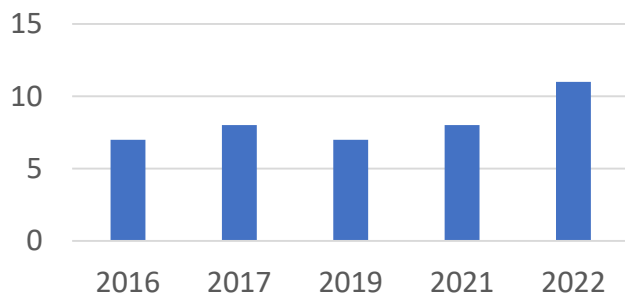


# 2022 DNA analysis:

- 100 fresh scat samples collected from 2 areas
- Analysed by DBCA
- 17 individual bilbies detected
- Only 4 animals from 2021 still present
- Still very small population size - vulnerable to extinction!



No. of individual bilbies in Kiwirrkurra area



# Future ambitions

Cat control around Kiwirrkurra is very good but we need to do more in areas far away from Kiwirrkurra

We also aren't very good at controlling foxes

We are hoping to start poison baiting in remote areas where people don't hunt cats anymore

Starting trials for poison baiting and aerial baiting over the next few years using 1080

Look into other methods for controlling foxes