

Cat (and fox) responses to fire

We work on the lands of the Gadigal,
Martu, Murramarang, Barengi Gadjin,
Wadawurrung and Eastern Maar people.



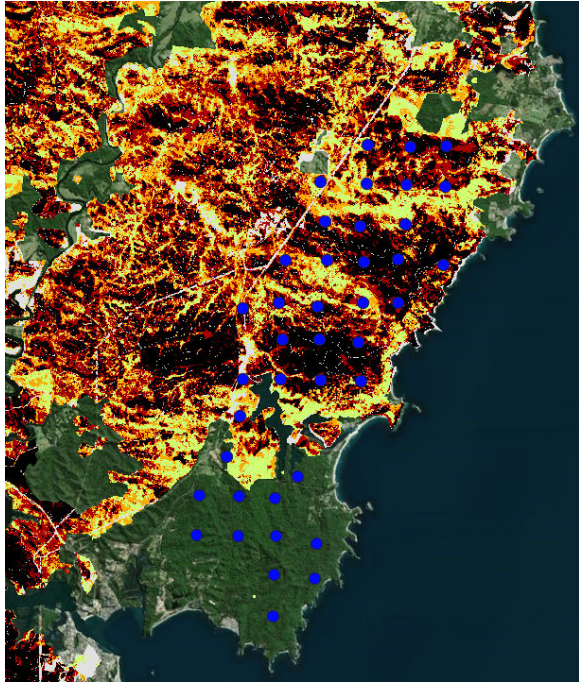
Tim Doherty
Darcy Watchorn
Vivianna Miritis
Ange Pestell
Dan Bohorquez
Billy Geary

[1] New data

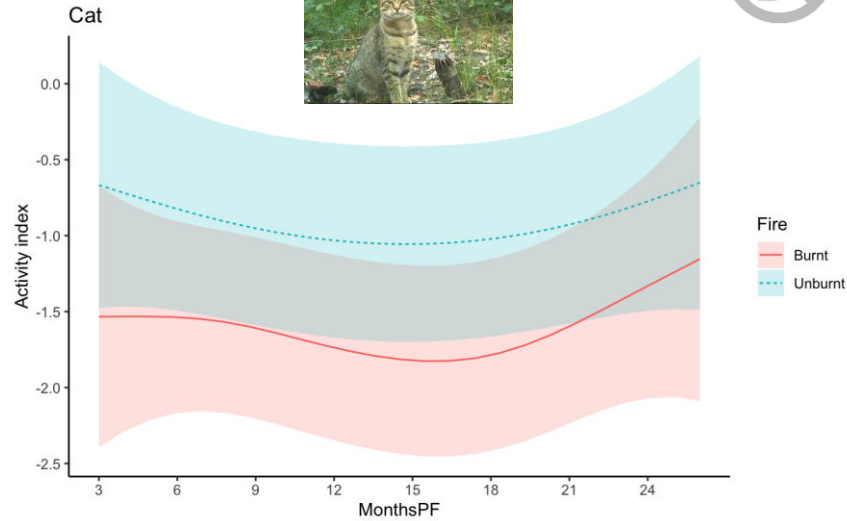
- NSW South Coast (wet and dry forest)
- VIC Otway Ranges (heathy woodland and forest)
- WA desert (spinifex grasslands)



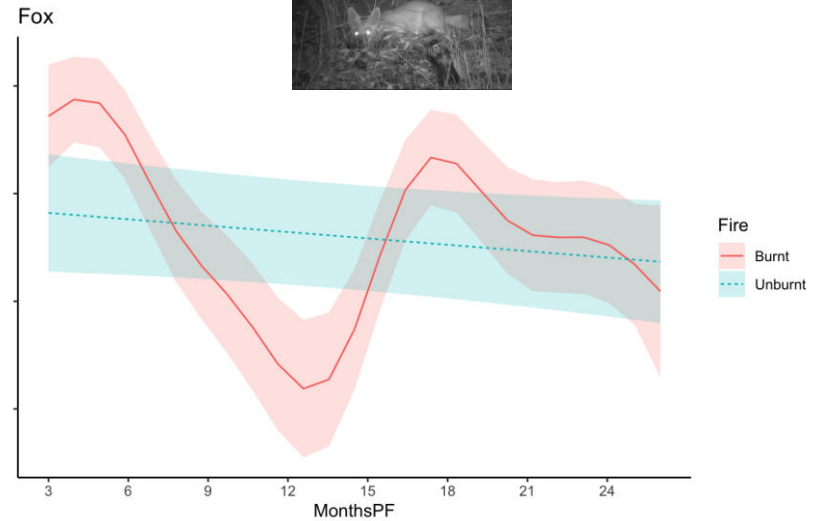
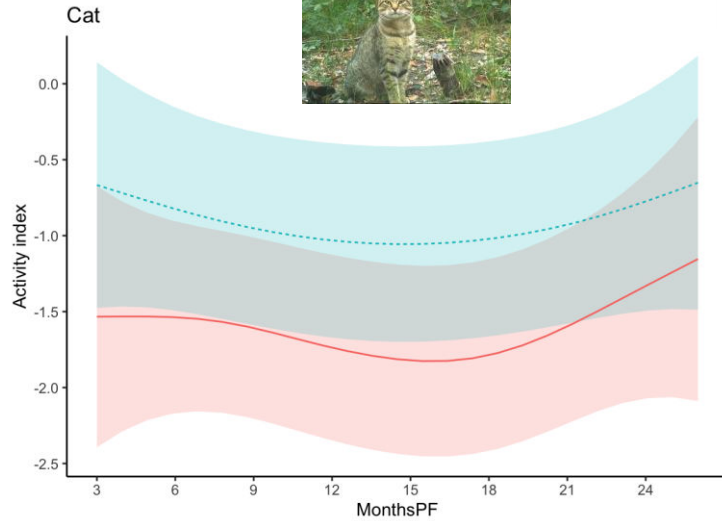
NSW South Coast



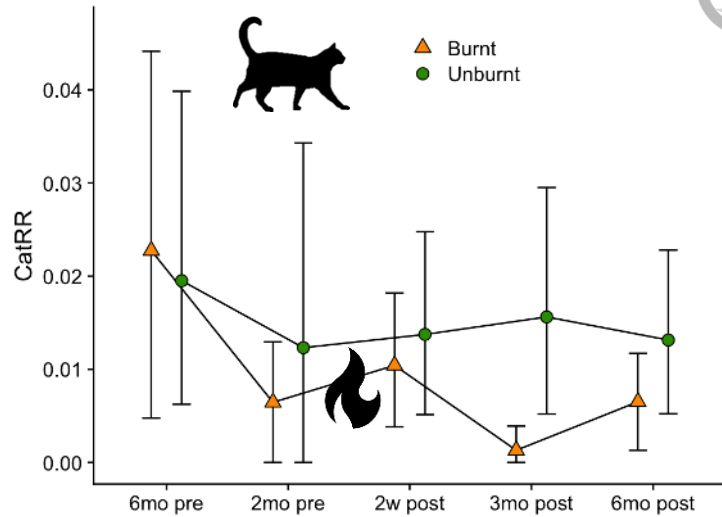
NSW South Coast



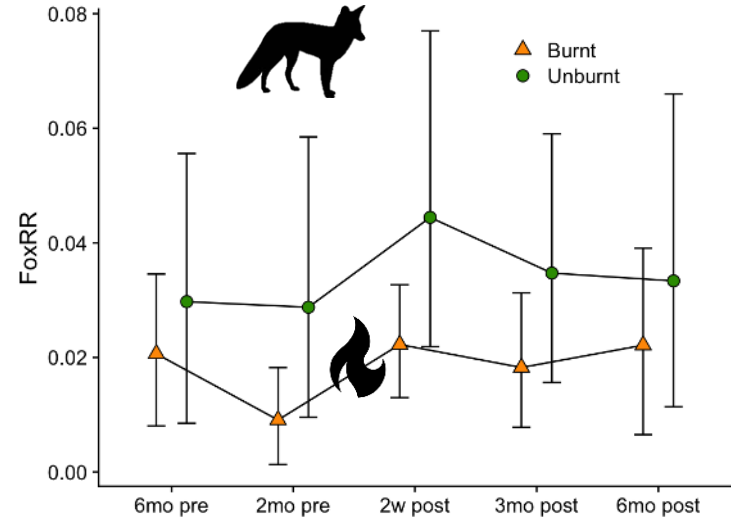
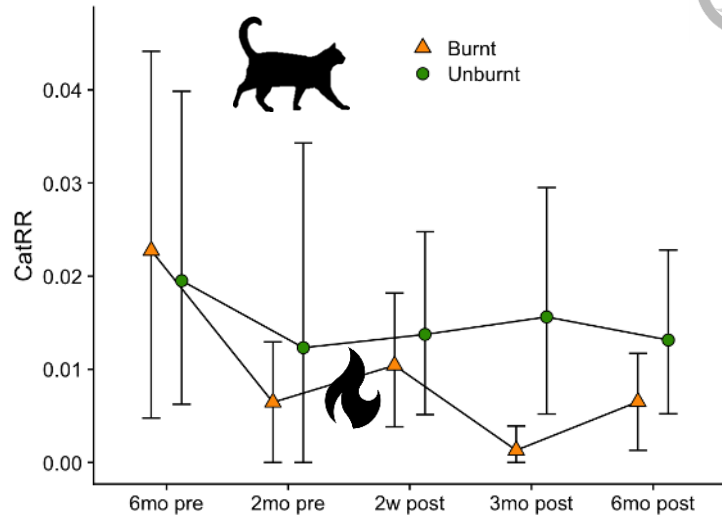
NSW South Coast



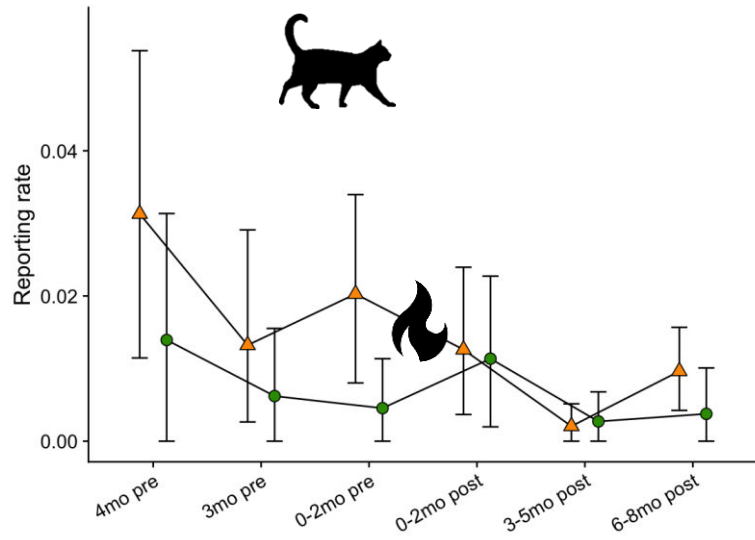
VIC Otway Ranges



VIC Otway Ranges



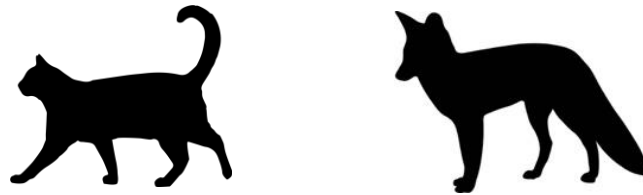
WA desert



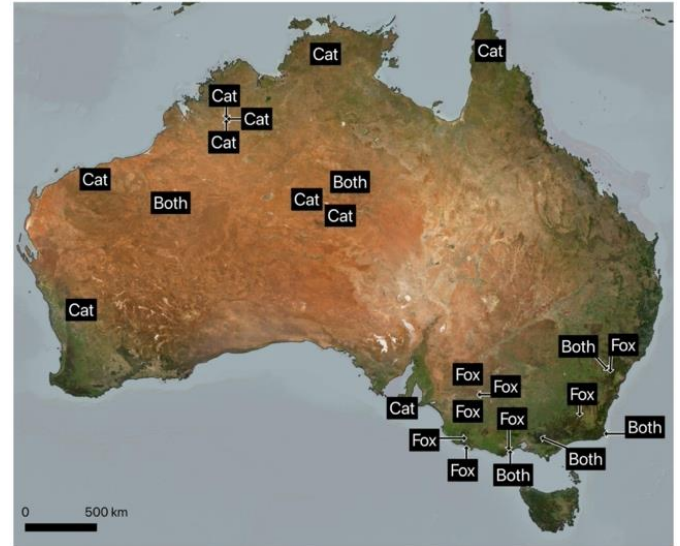
[2] Meta-analysis

How common is increased vs decreased predator activity in burnt areas?

What drives these responses?

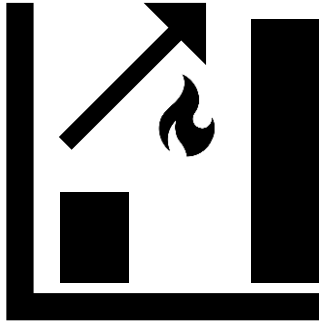


- Studies of cat/fox activity in relation to fire (e.g., burnt/unburnt, pre-/post-fire)
- 24 studies
(10 cat, 8 fox, 6 both)
- 44 comparisons for cats
60 for foxes



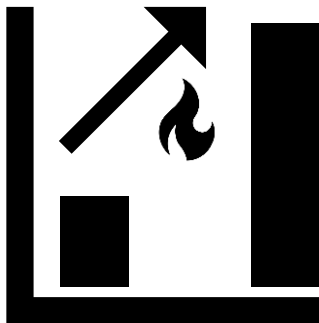
Responses were classified as either:

● Positive

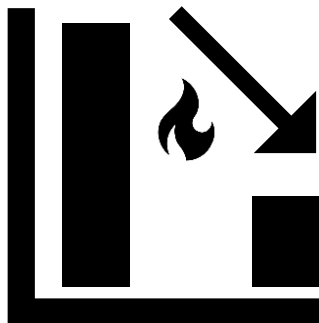


Change in cat or fox activity, occurrence or habitat selection

● Positive

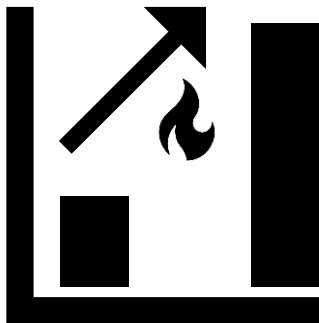


▼ Negative

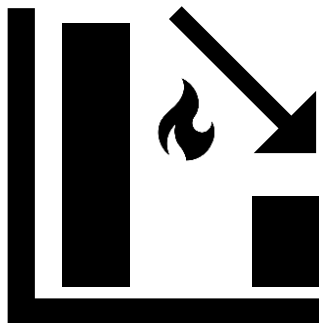


Change in cat or fox activity, occurrence or habitat selection

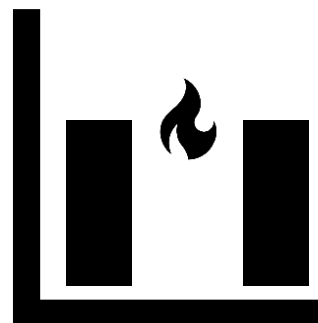
● Positive



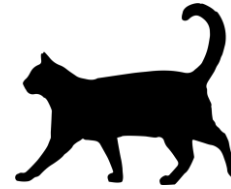
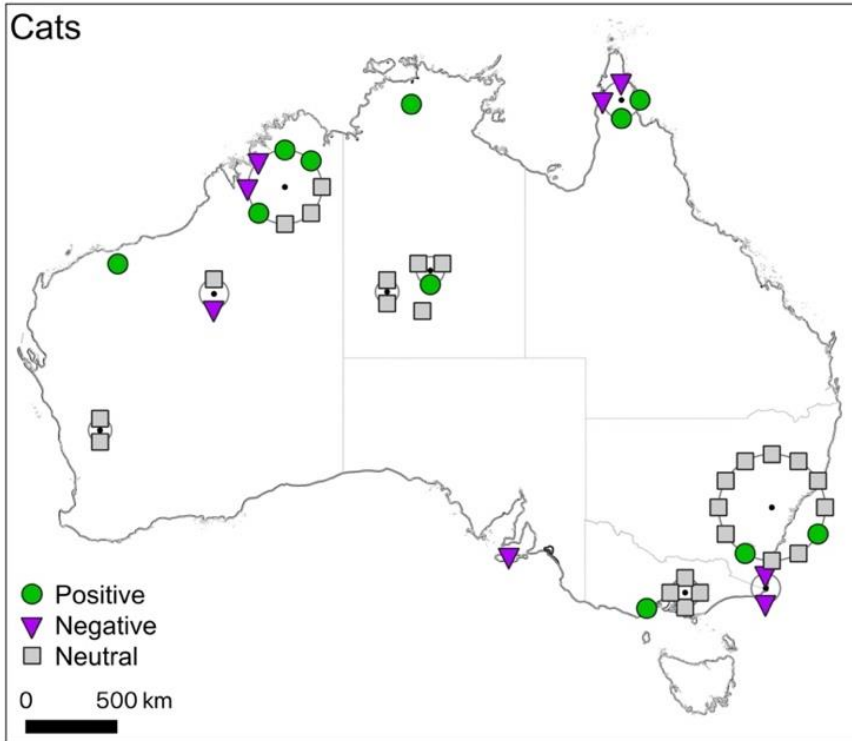
▼ Negative



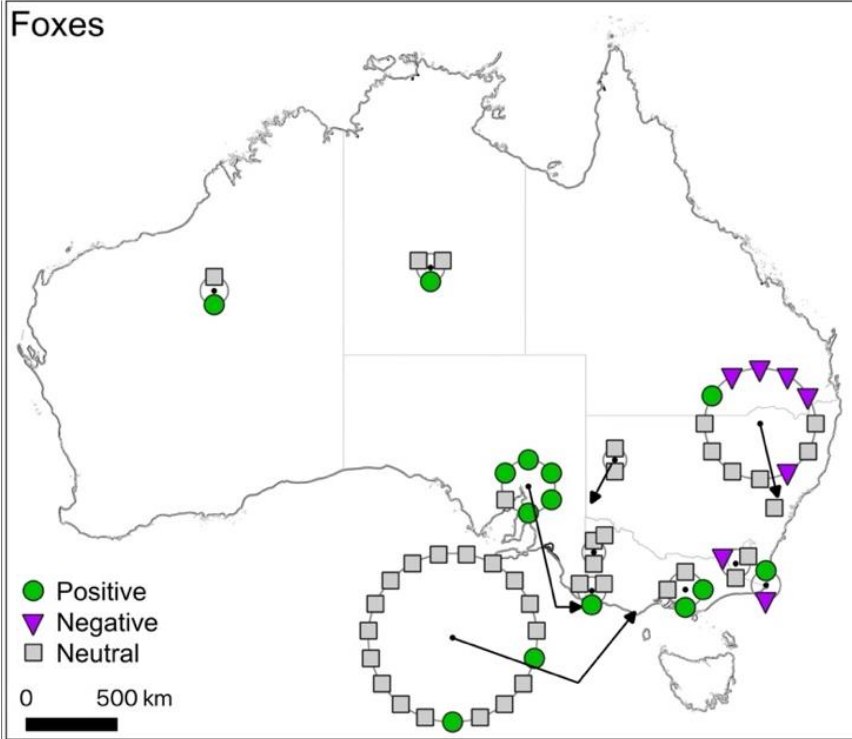
■ Neutral



Change in cat or fox activity, occurrence or habitat selection



- 11 positive
- ▼ 8 negative
- 25 neutral



● 14 positive

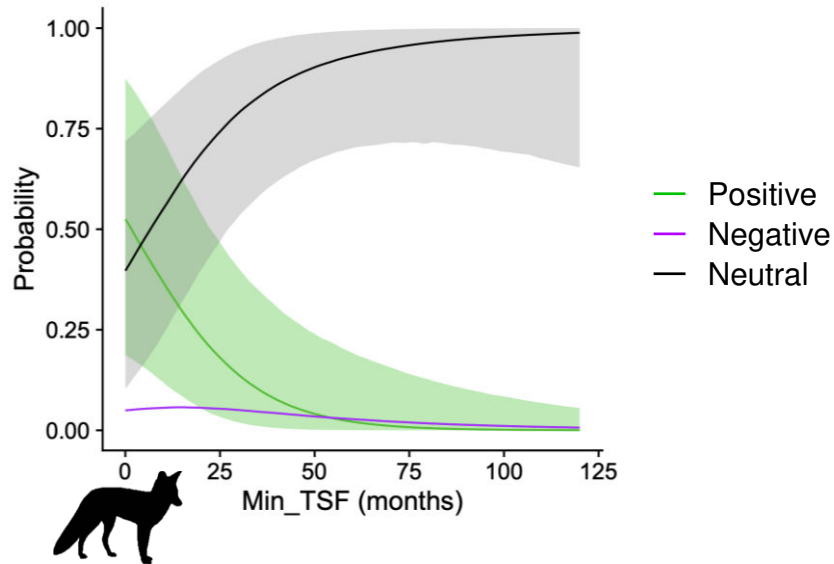
▼ 7 negative

■ 39 neutral

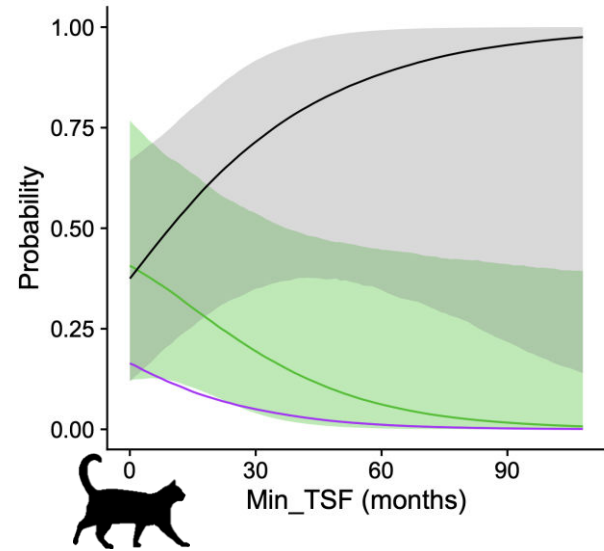
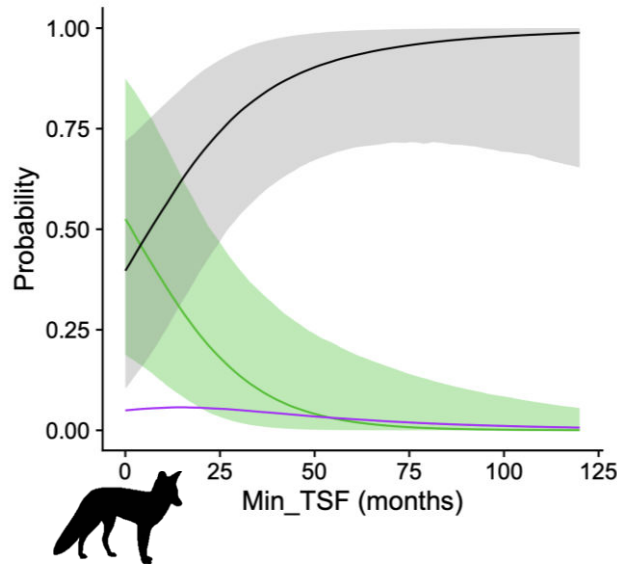
What drives positive or negative responses?

Climate type?	-not much
Fire type?	-not much
Time since fire?	-yes

Positive responses are more likely if areas were burnt more recently



Positive responses are more likely if areas were burnt more recently



Summing up

- Cats and foxes show a range of responses to fire
- Increased activity more likely very soon after fire
- Future research needs



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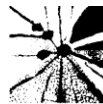
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