The effects of land use on the prevalence of free-ranging predators in the Fish-Kowie Corridor

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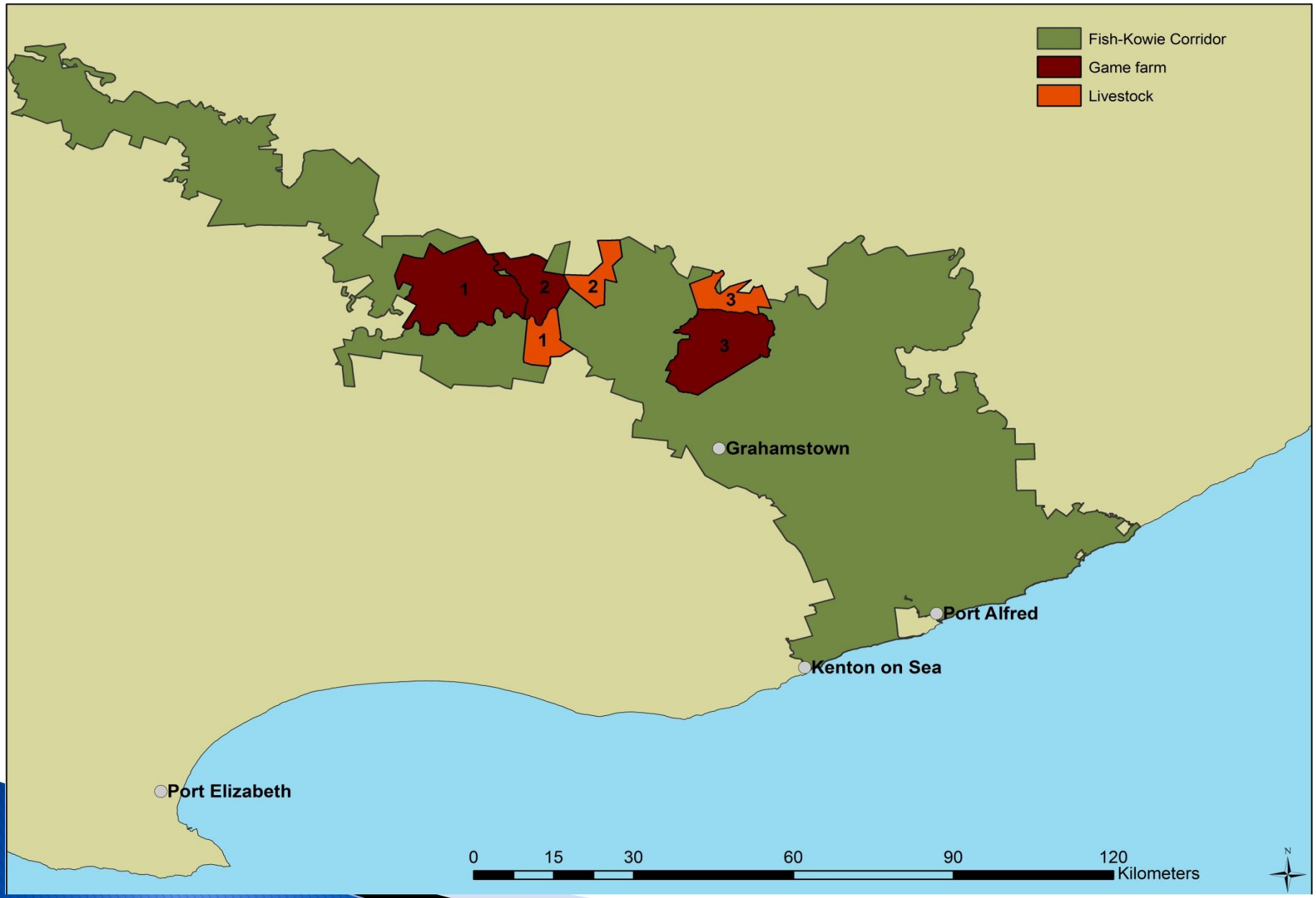
Introduction

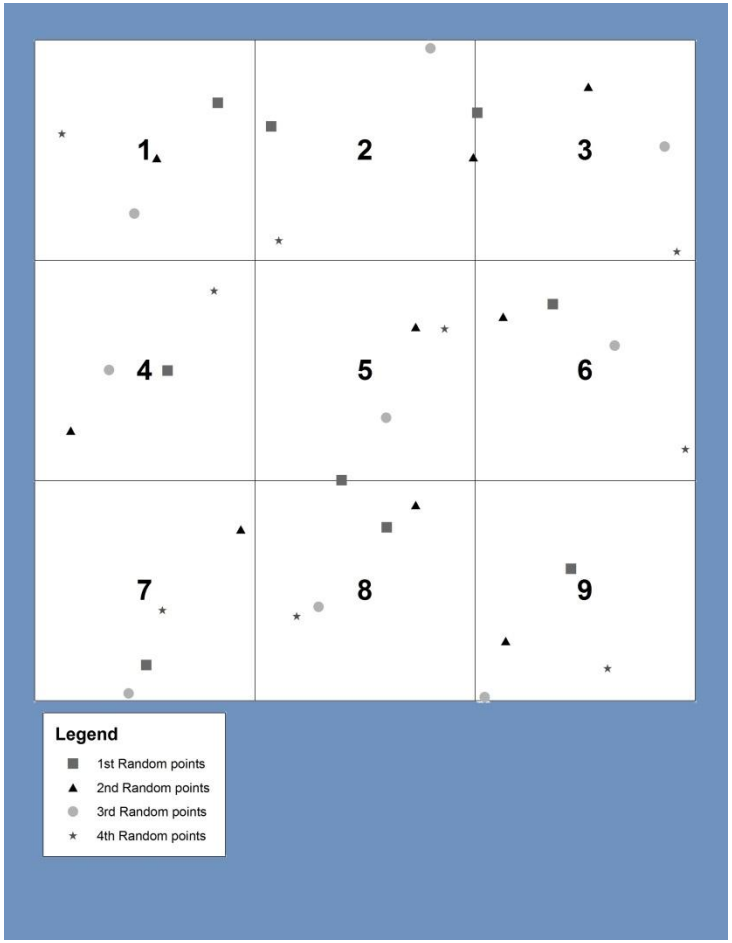
- Commercial agriculture is the dominant land use type in the Fish-Kowie Corridor
- Shift in land use in the last 20 years from livestock farming to game farming
- Free ranging predators in the Eastern Cape: jackal, caracal, leopard, brown hyaena

Study Area


Fish-Kowie Corridor
Game farm
Livestock
1
2
2
1
3
3
Grahamstown
Port Alfred
Kenton on Sea
Port Elizabeth
0
15
30
60
90
120
Kilometers
N

Camera trapping

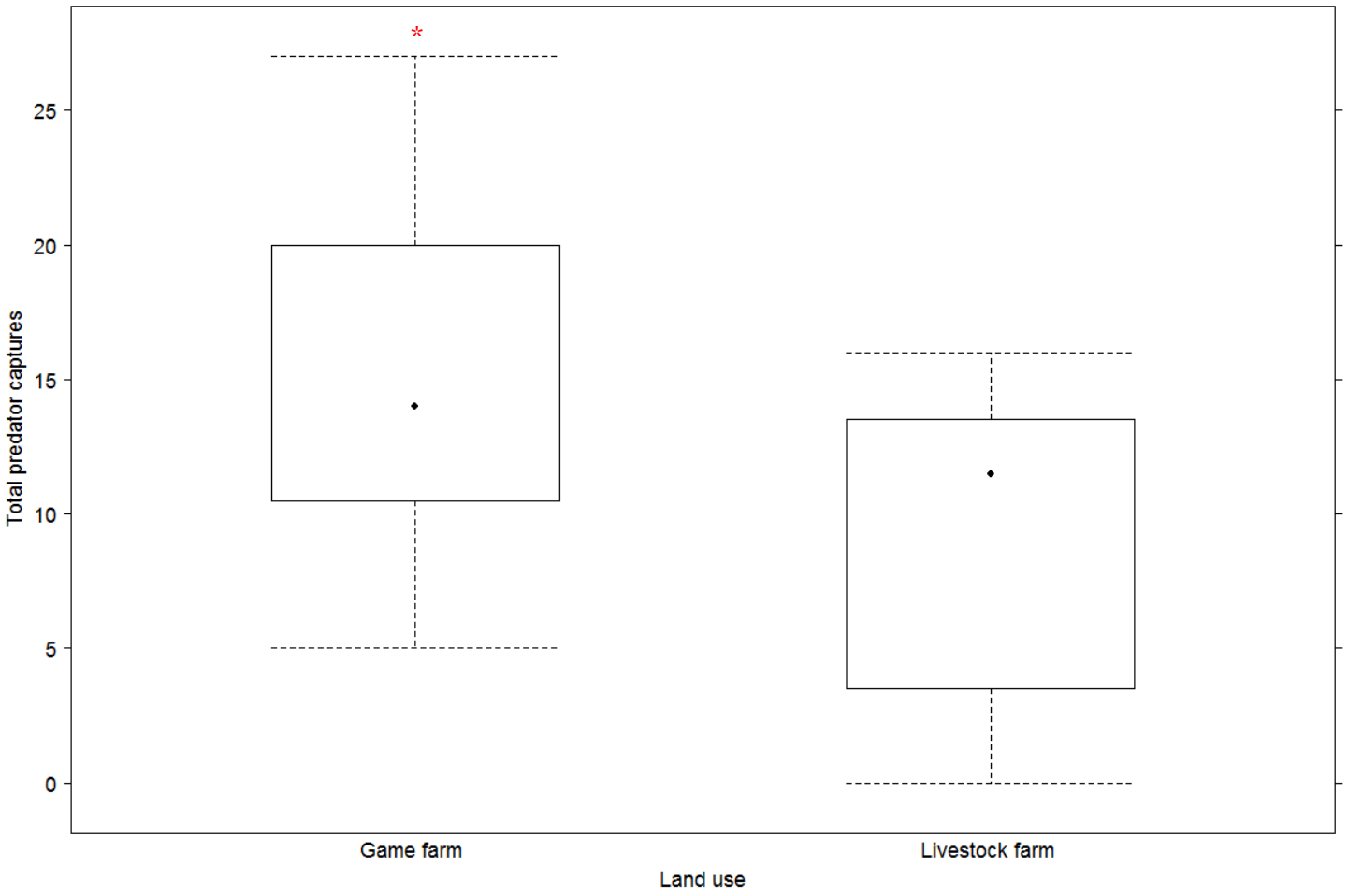
- 3 x 3 grid per property
- Four camera stations per block
- 108 Camera stations per land use type
- Camera station were active for 90 days



Results

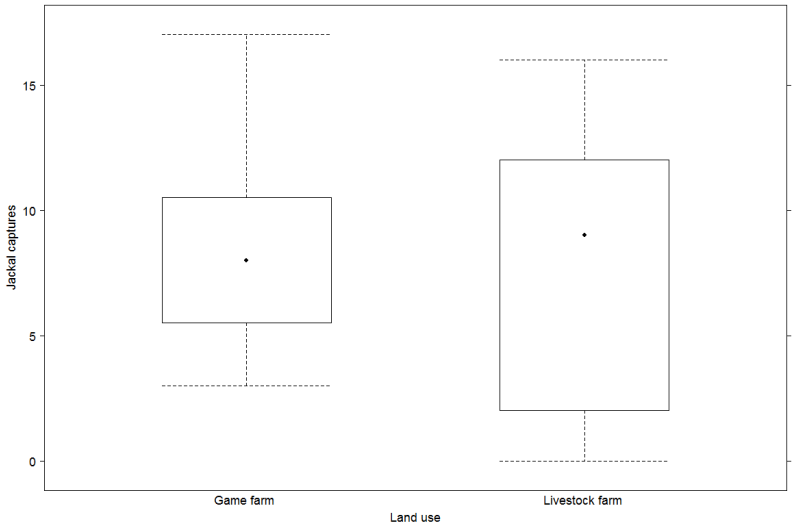
Summary of predator captures from camera traps on two land use types

	GAME	LIVESTOCK	TOTAL
Trap nights	9 396	9 082	18 478
Total photos	15 791	22 255	38 046
Predator photos	330	160	490
Predator captures	180	107	287

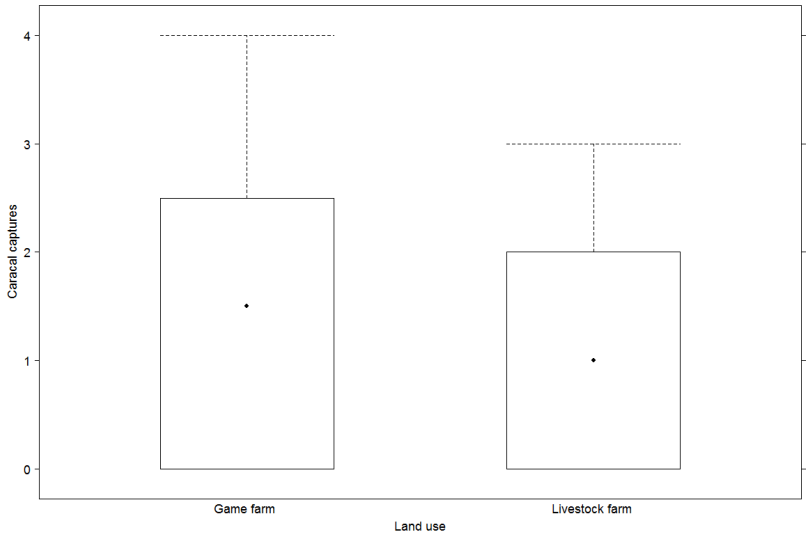


Total predator captures on two land-use types ($F_{(1,24)} = 5.36$; $p < 0.05$)

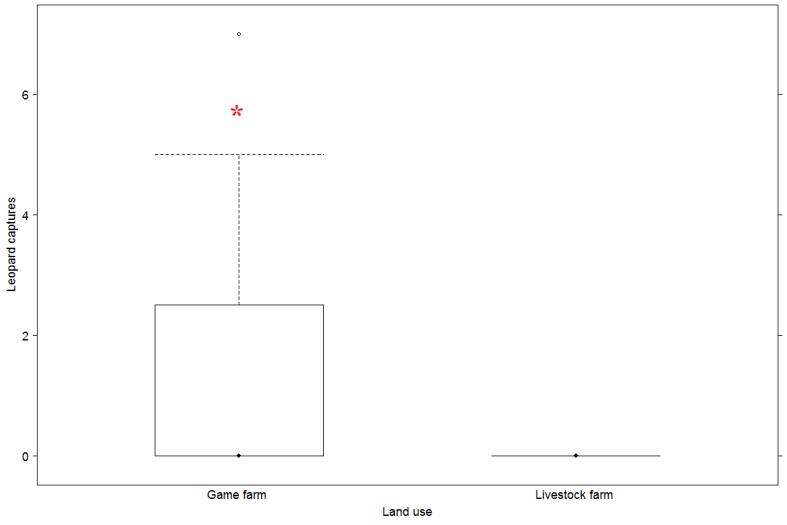
Jackal



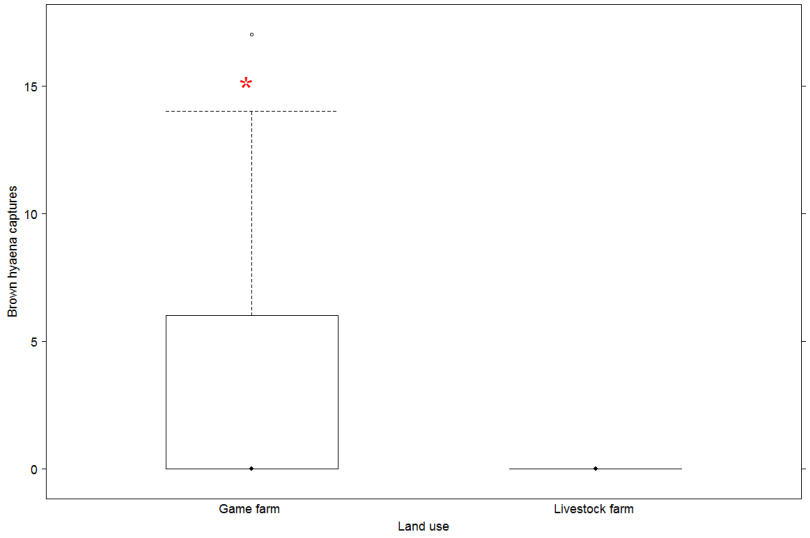
Caracal

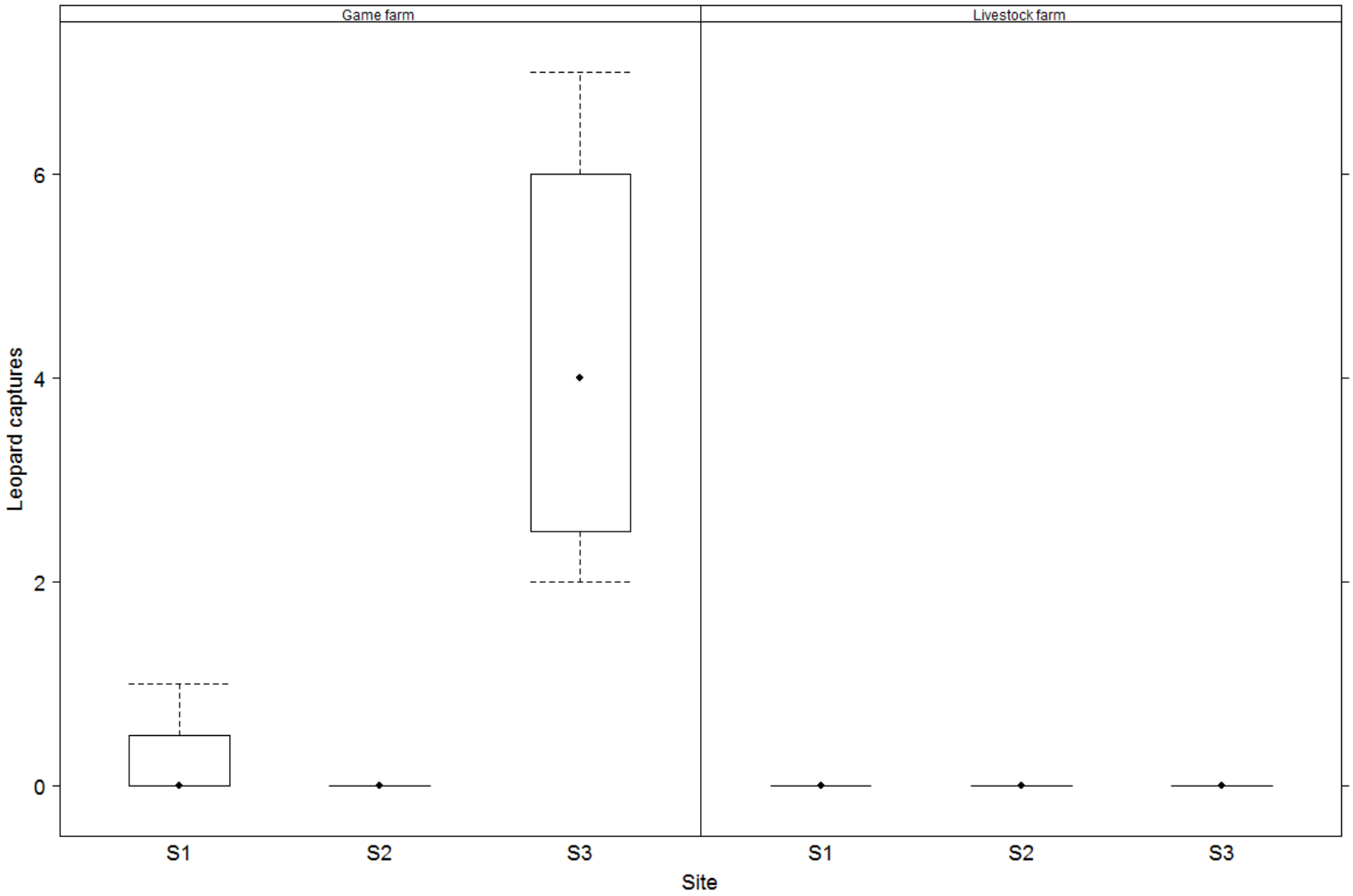


Leopard

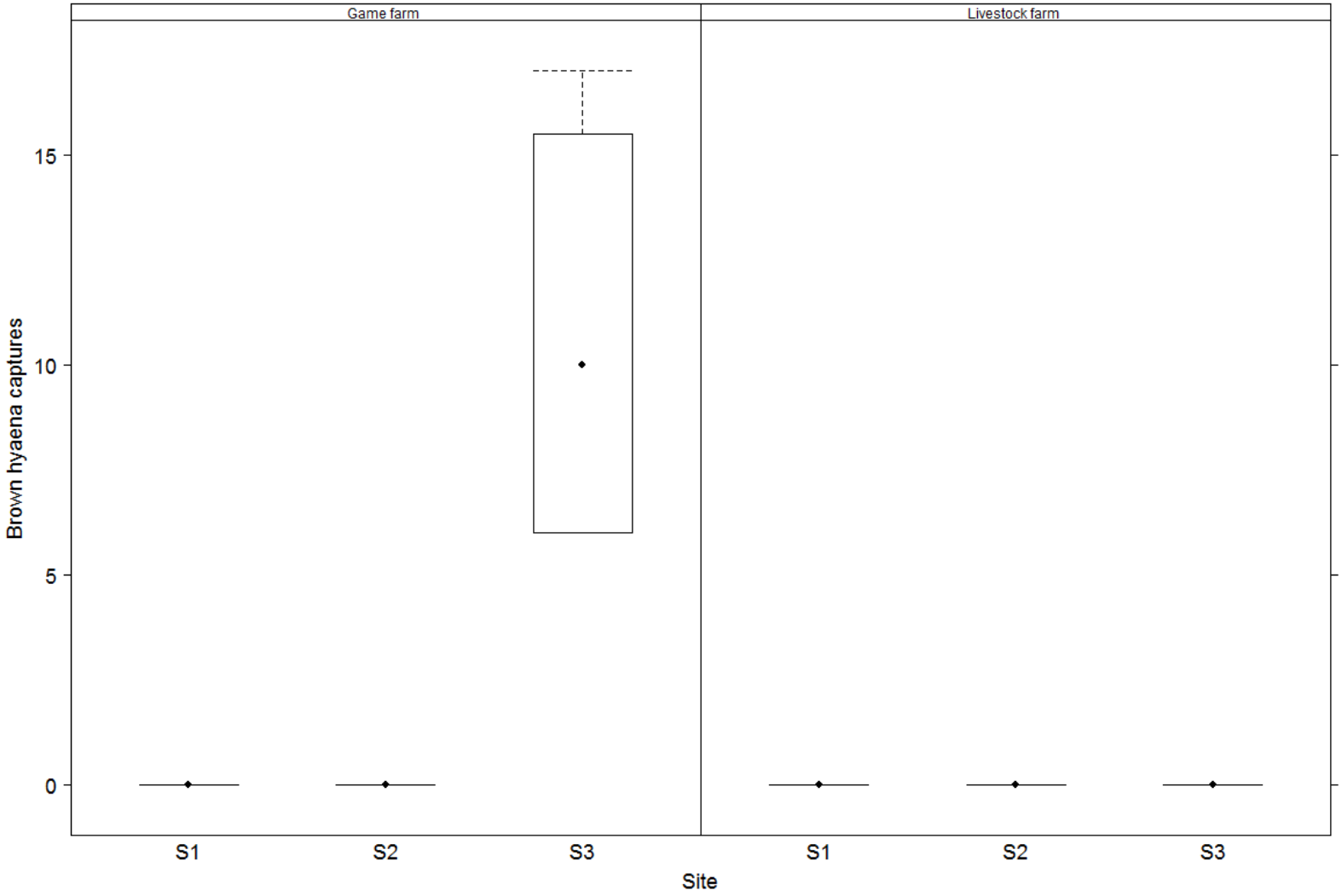


Brown hyaena

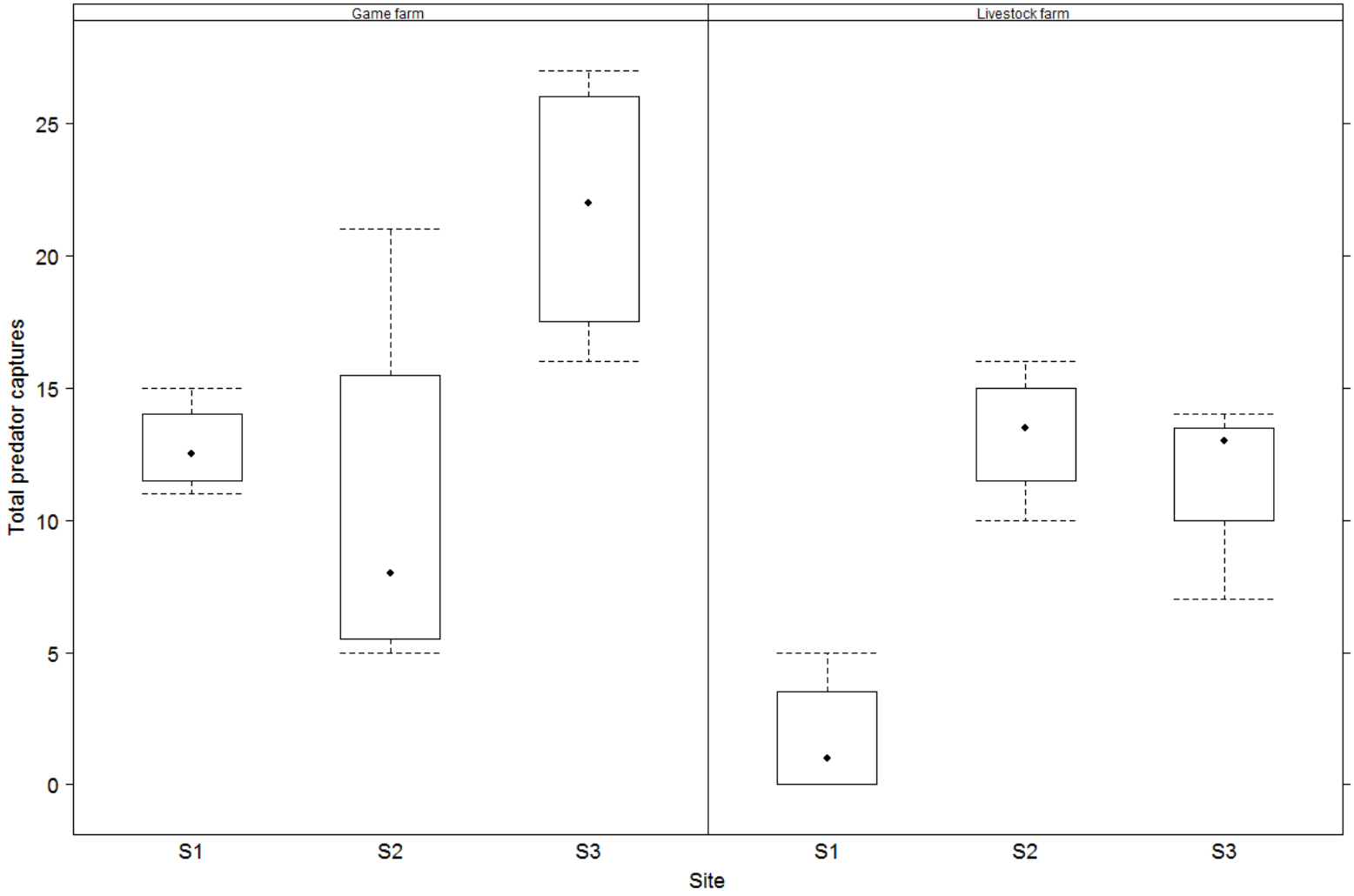




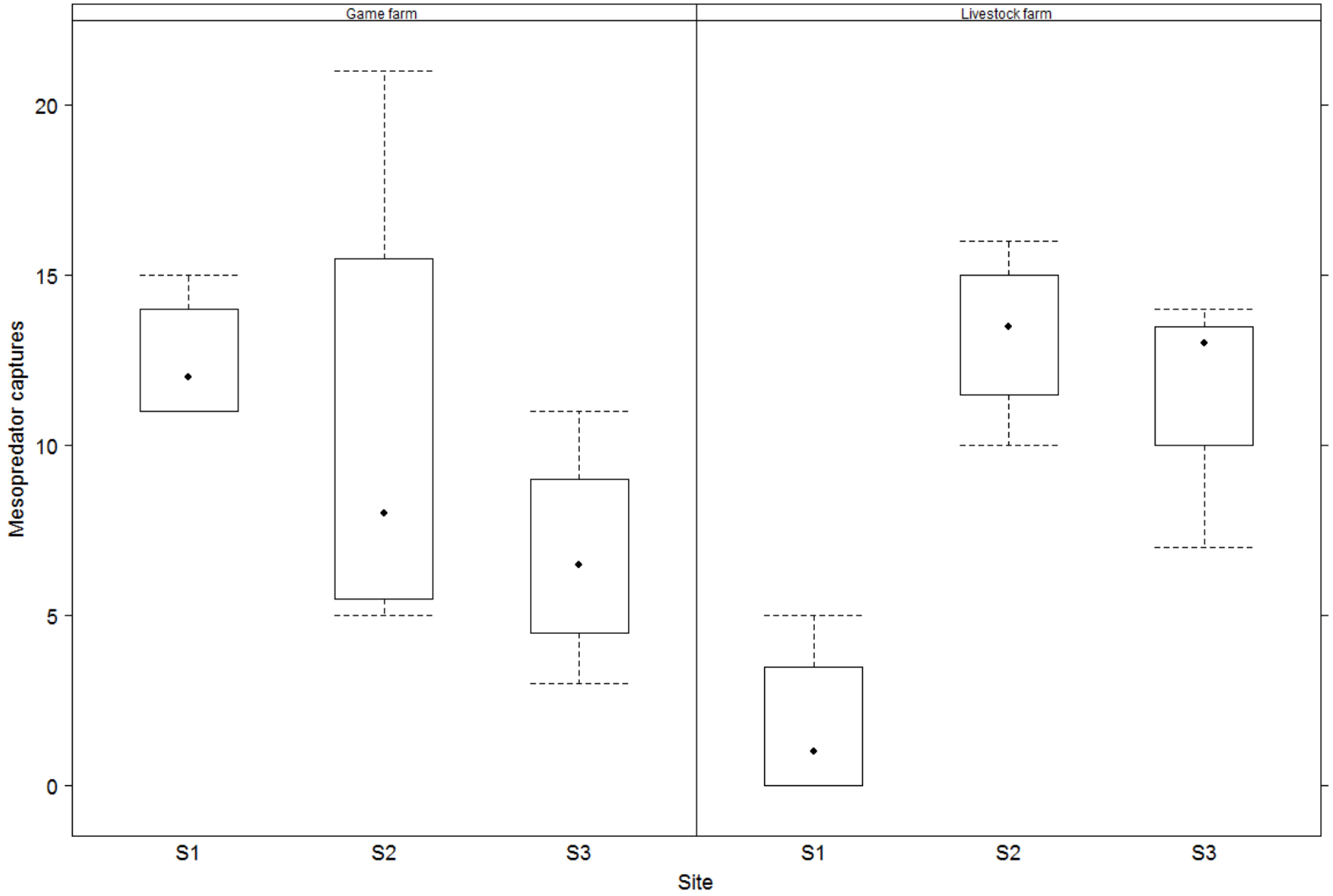
Leopard captures across six sample sites ($H_{(5,24)} = 19.83$; $p < 0.05$)



Brown hyaena captures across six sample sites ($H_{(5,24)} = 22.79$; $p < 0.01$)



Total predator captures across six sample sites ($F_{(5,24)}=9.36$; $p < 0.001$)



Mesopredator captures across six sample sites ($F_{(5,24)} = 5.14$; $p < 0.01$)

Conclusion

- Predator prevalence are higher on game farms than livestock farms
- However, this is due to larger predators that are only prevalent on one property
- Importantly, mesopredator numbers are similar on the two land use types

Acknowledgements

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