

Conservation in Action Conference 2018

Safeguarding a superb future



ACT
Government

Environment and Planning

Dr Laura Rayner
Woodland Ecologist

Bioclimatic profile

Research Team

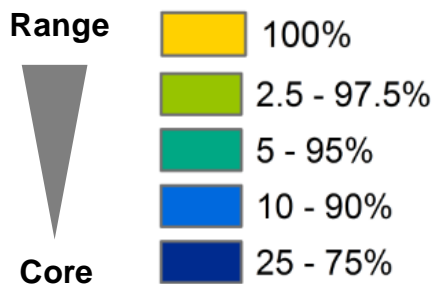
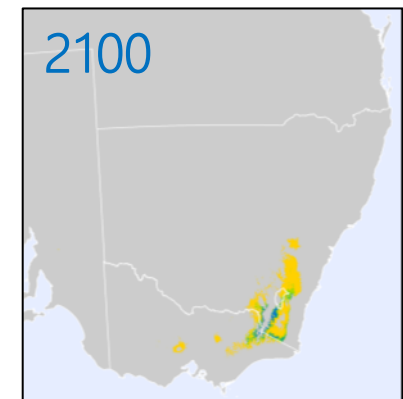
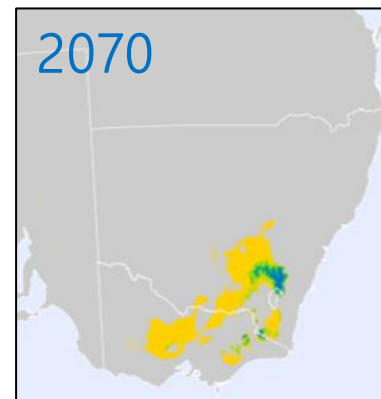
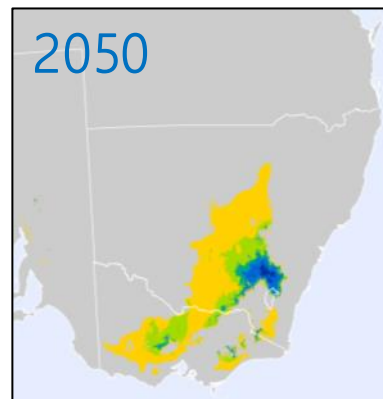
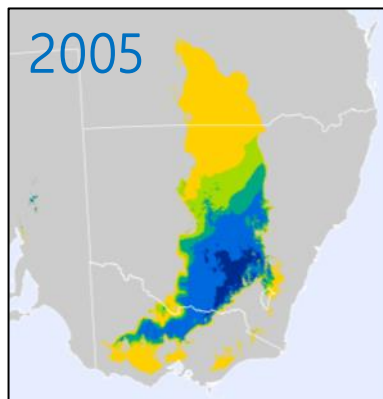
Professor Adrian Manning

Professor Michael Hutchinson

Dr Tingbao Xu

Dr Laura Rayner

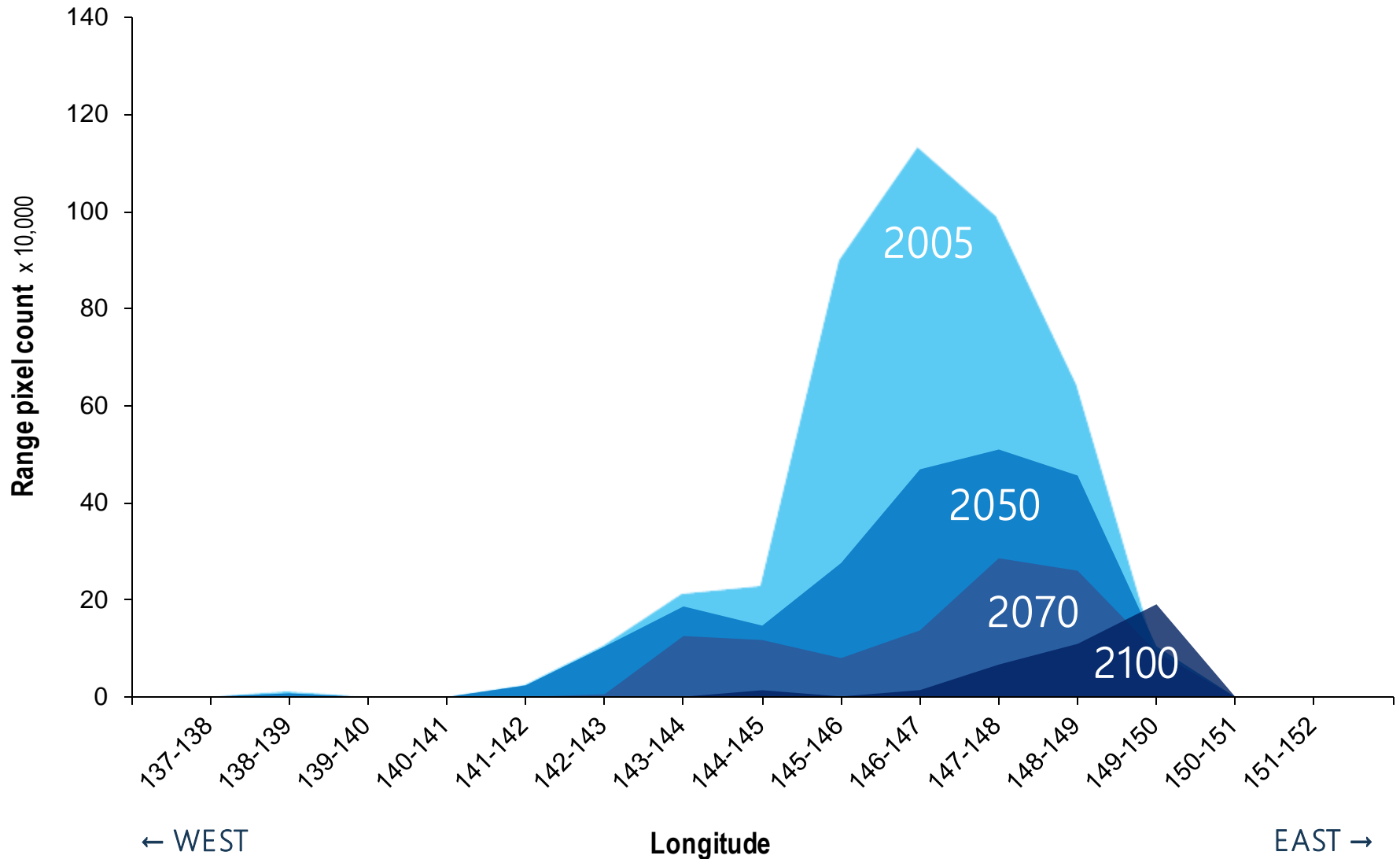
Manning et al. (*in review*)



Current estimated
extent of occurrence
= 95,000 km²

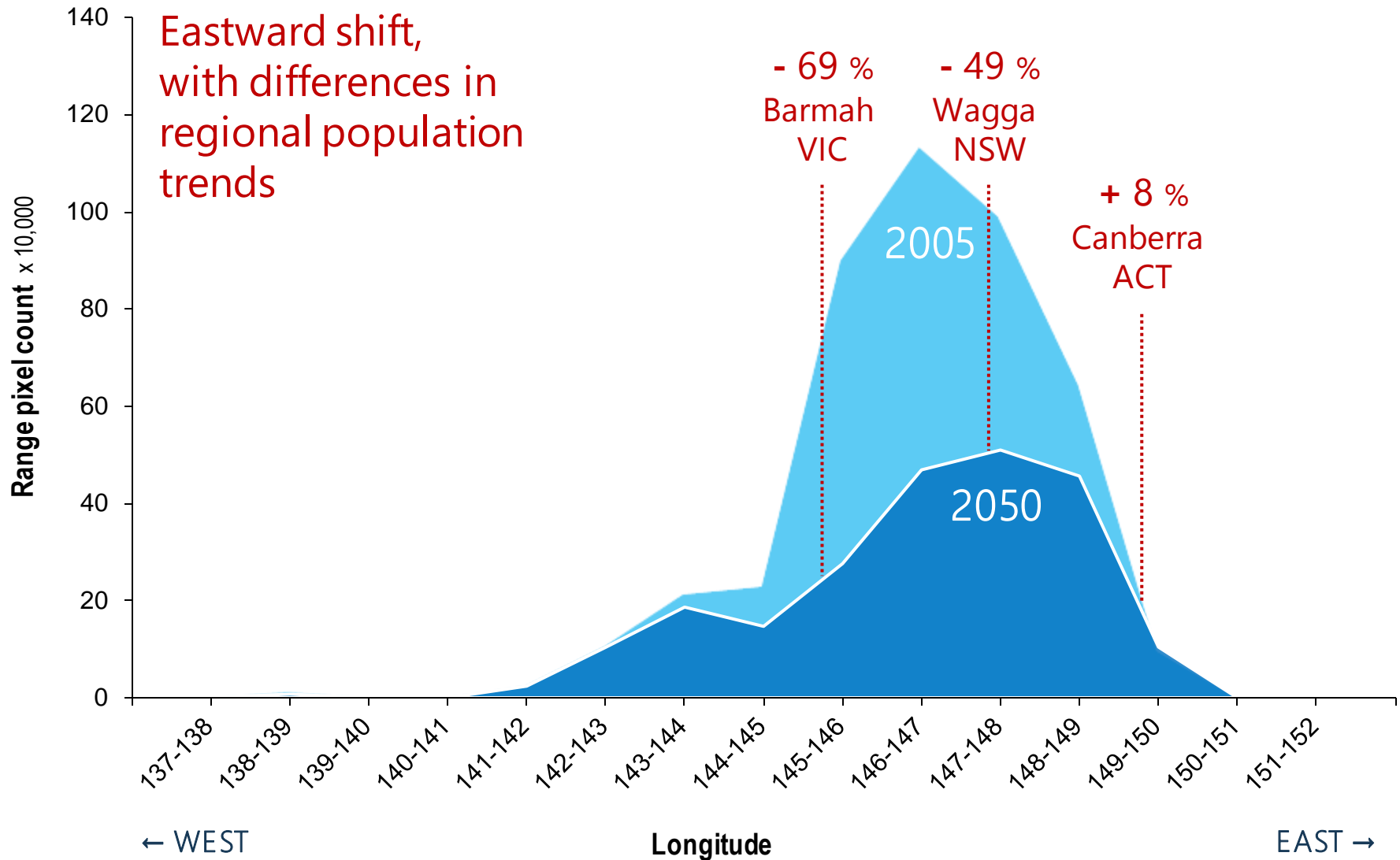
Bioclimatic range shift

Manning et al. (*in review*)



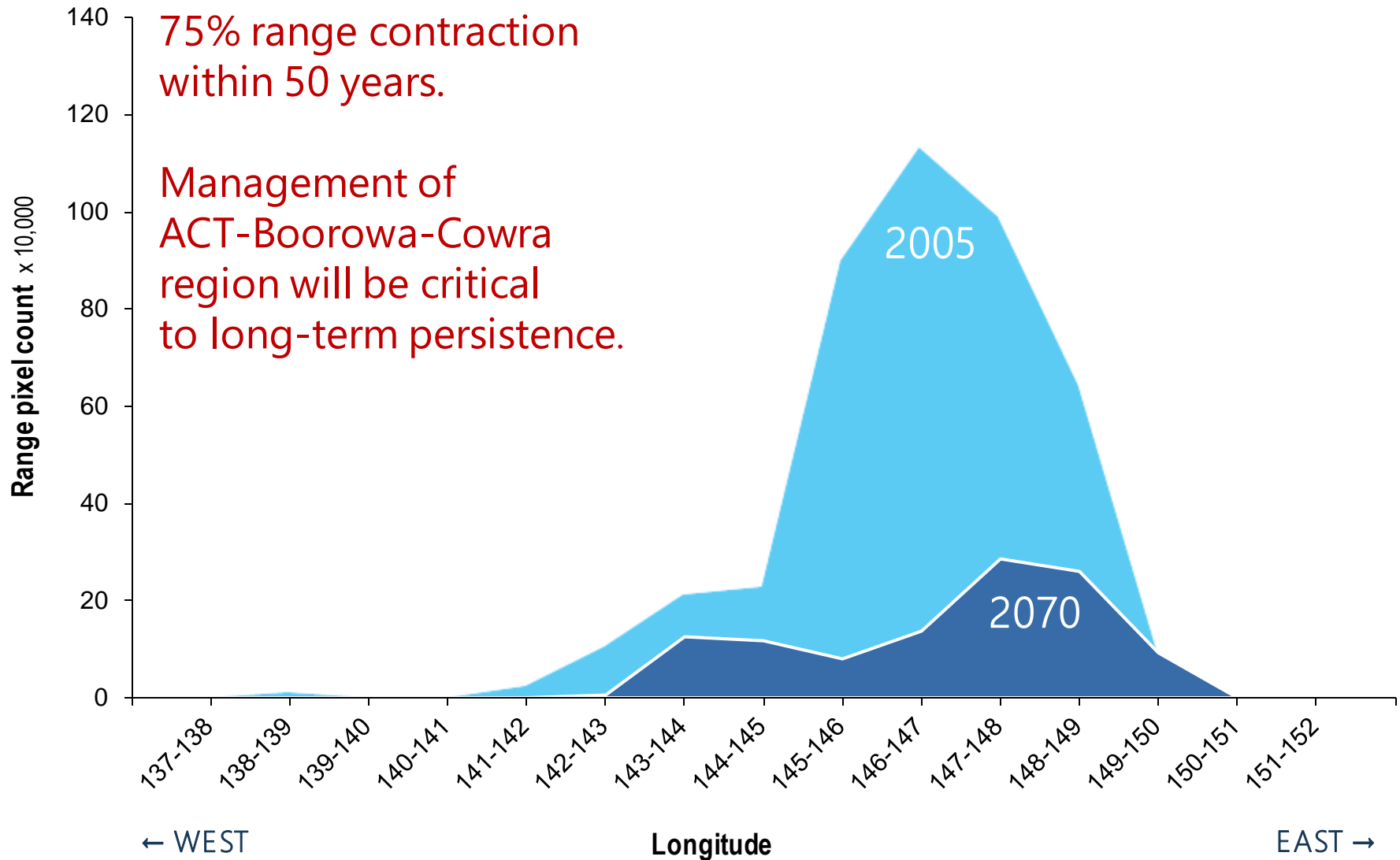
Regional trends

Manning et al. (*in review*)



Regional trends

Manning et al. (*in review*)



BREEDING



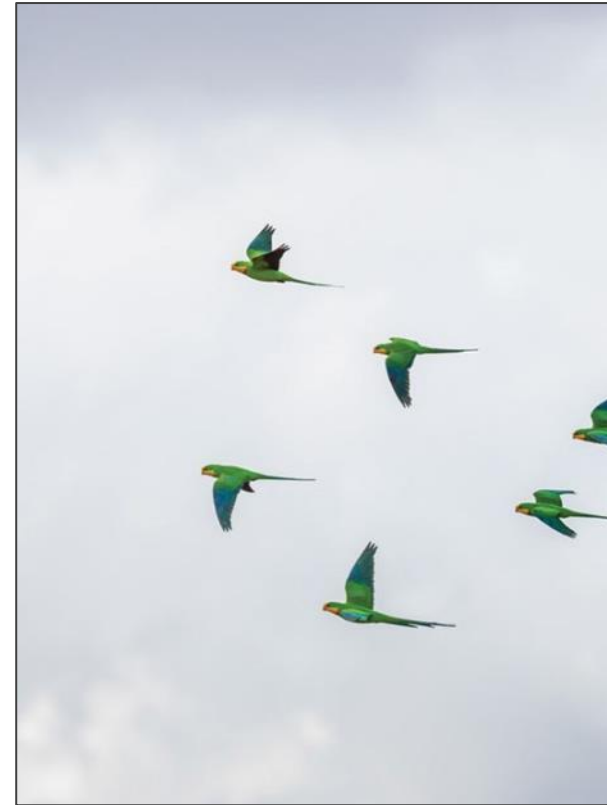
Nest data

FORAGING



Tracking data

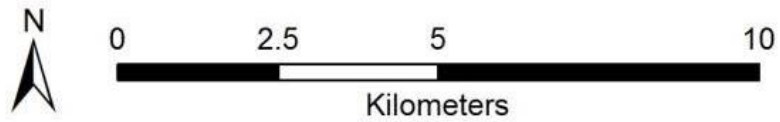
MOVEMENT



ACT Research

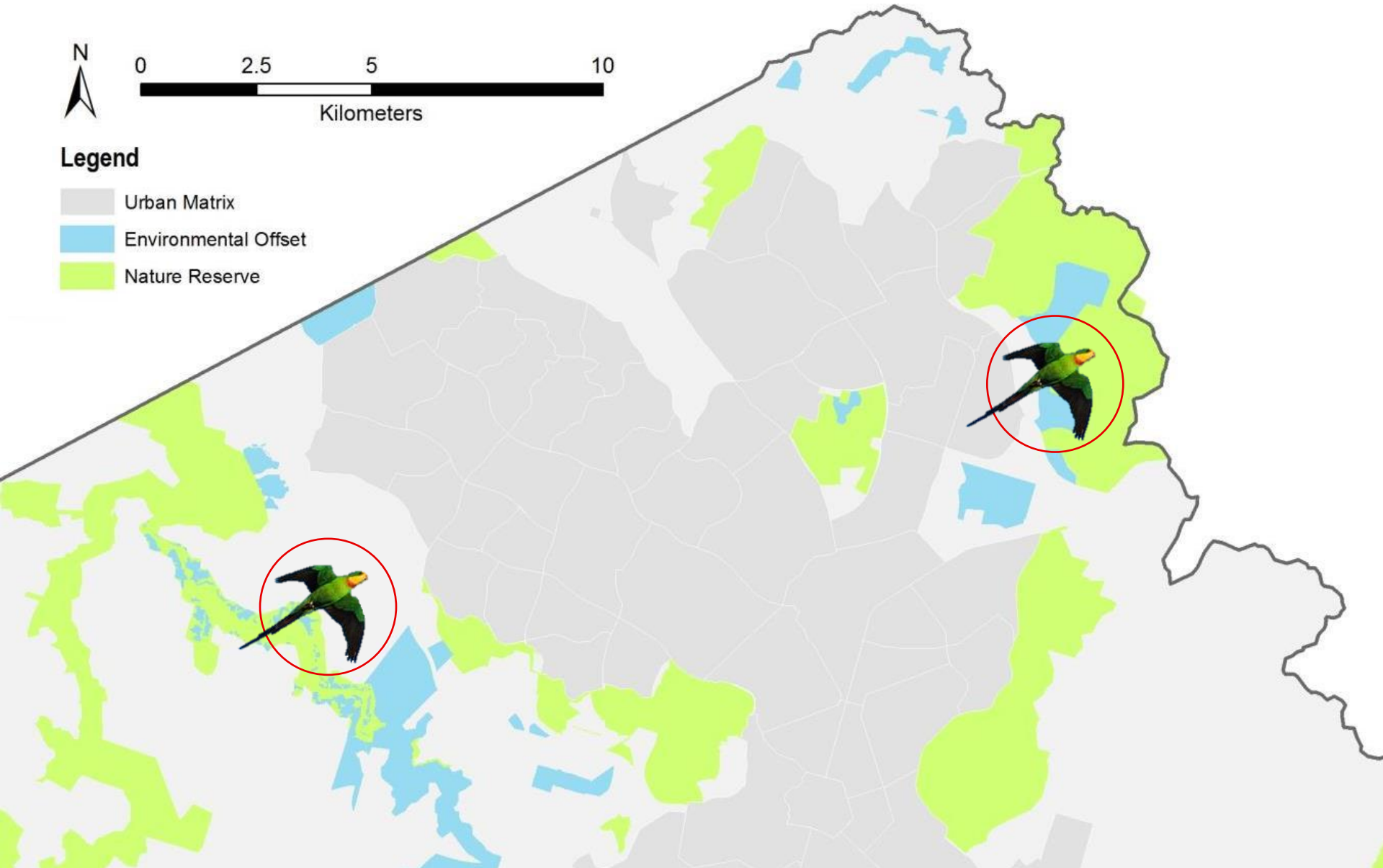


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Legend

- Urban Matrix
- Environmental Offset
- Nature Reserve

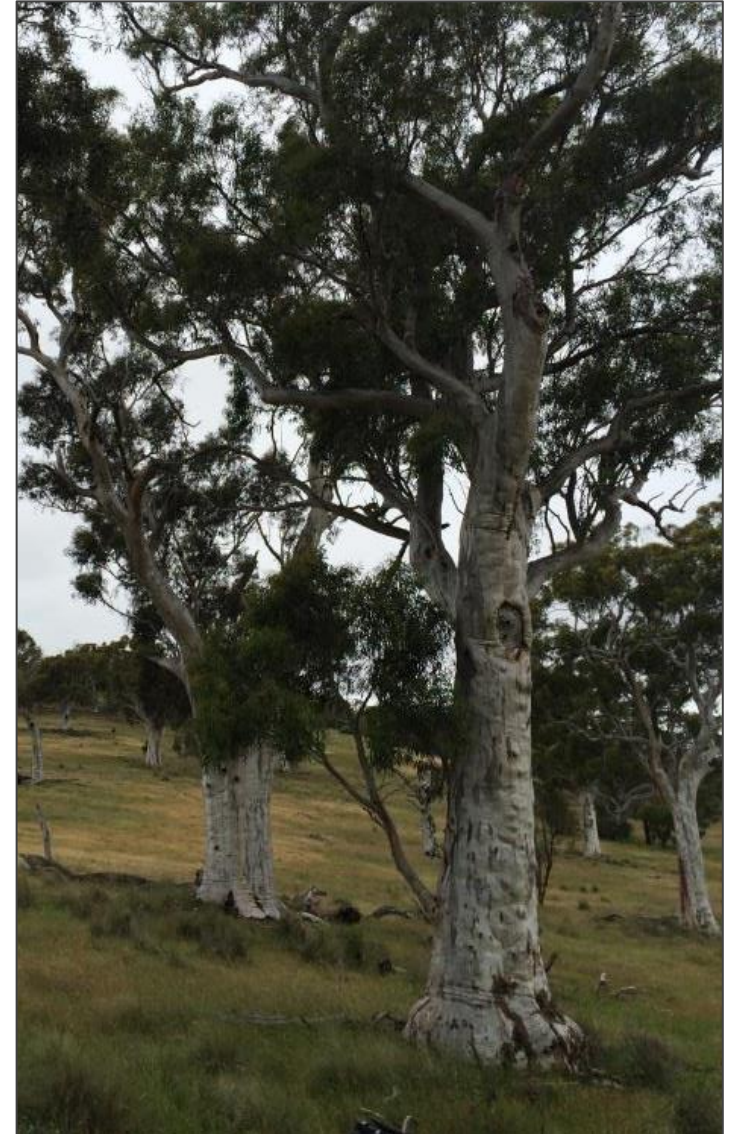


Breeding



What is a suitable nest tree?

- ✓ Blakely's Red Gum
Eucalyptus blakelyi
- ✓ Scribbly Gum
Eucalyptus rossii
- ✓ Diameter = 112.9 cm \pm 24.1 cm
Minimum = 75.4 cm
- ✓ Height = 16.1 m \pm 4.8 m
Minimum = 9 m
- ✓ Clustered
- ✓ Living

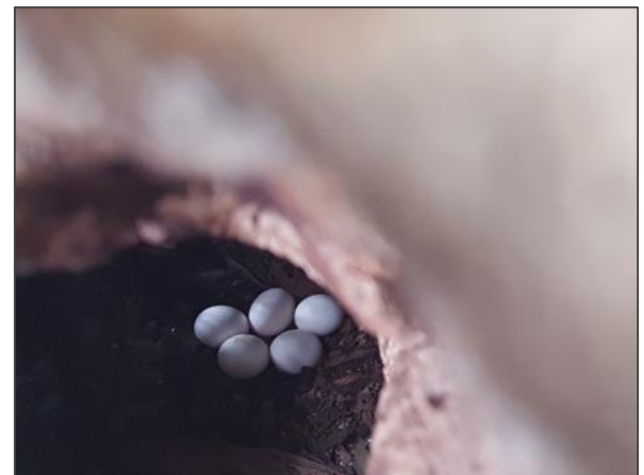


Breeding



What is a suitable nest hollow?

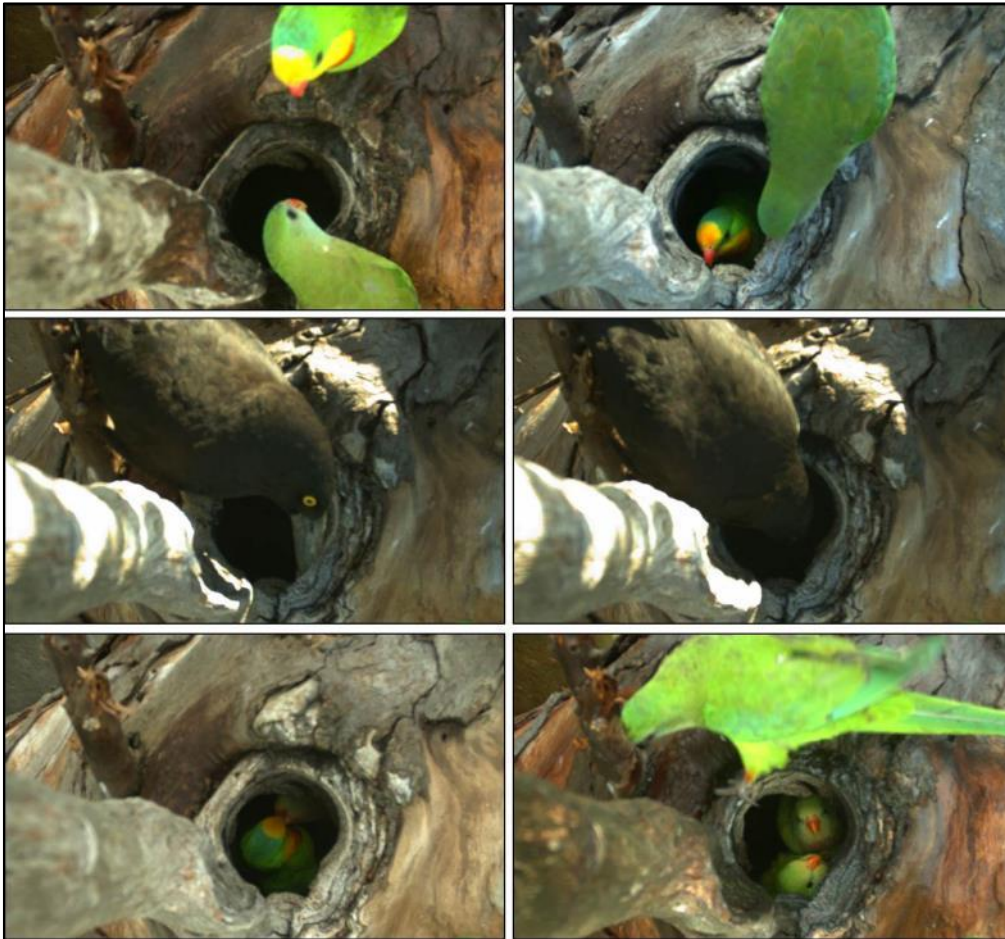
- ✓ Min. entrance = $11.4 \text{ cm} \pm 2.6 \text{ cm}$
- ✓ Max. entrance = $16.9 \text{ cm} \pm 8.5 \text{ cm}$
- ✓ Depth = $75.4 \text{ cm} \pm 29.0 \text{ cm}$
- ✓ Floor = $21.1 \text{ cm} \pm 7.7 \text{ cm}$
- ✓ Live trunk or primary branch
- ✓ Prior use



Breeding



What is a suitable nest hollow?



Movement



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Where is superb parrot foraging habitat?

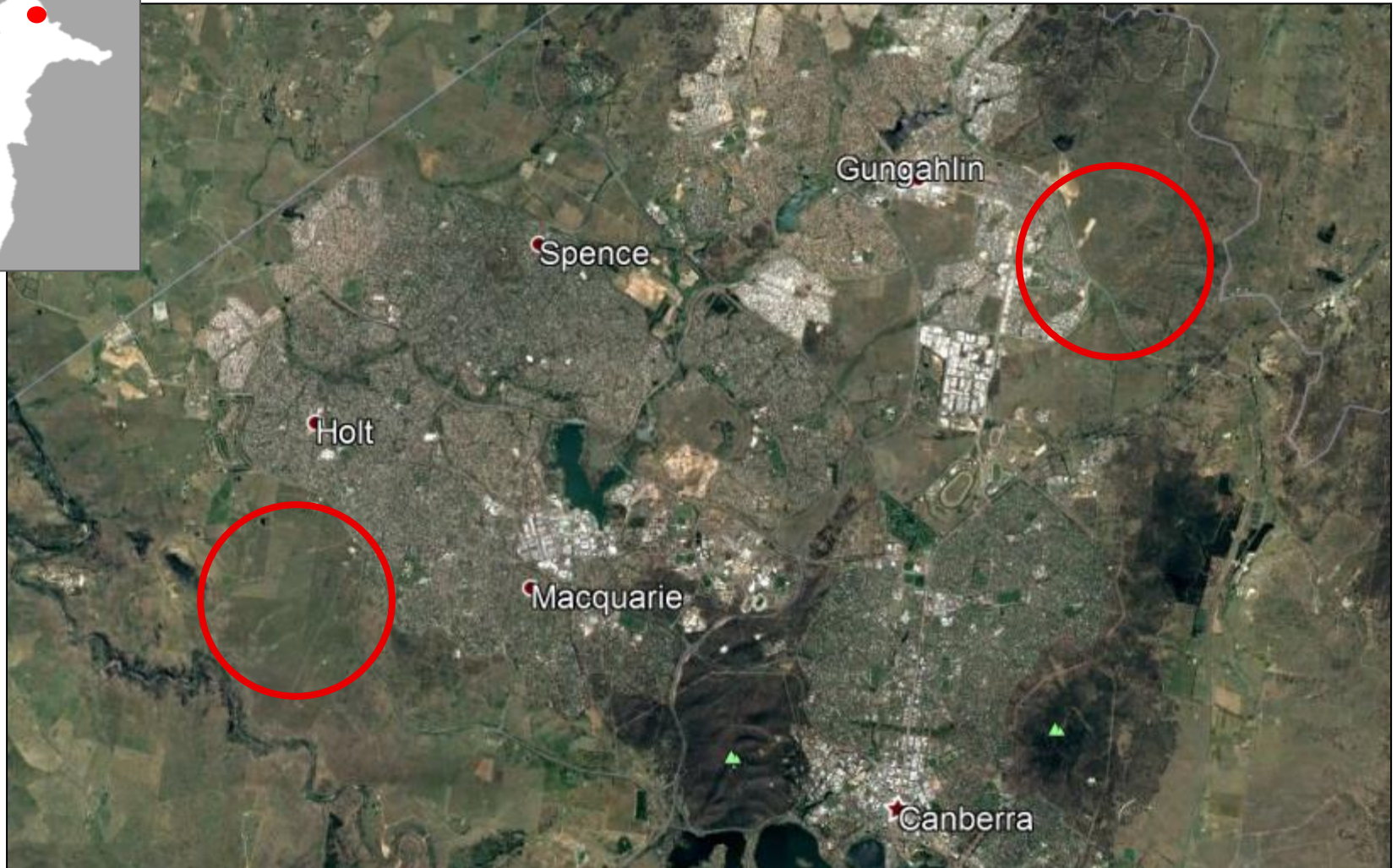
Ecotone ALLE-60 and ALLE-100 GPS UHF Loggers



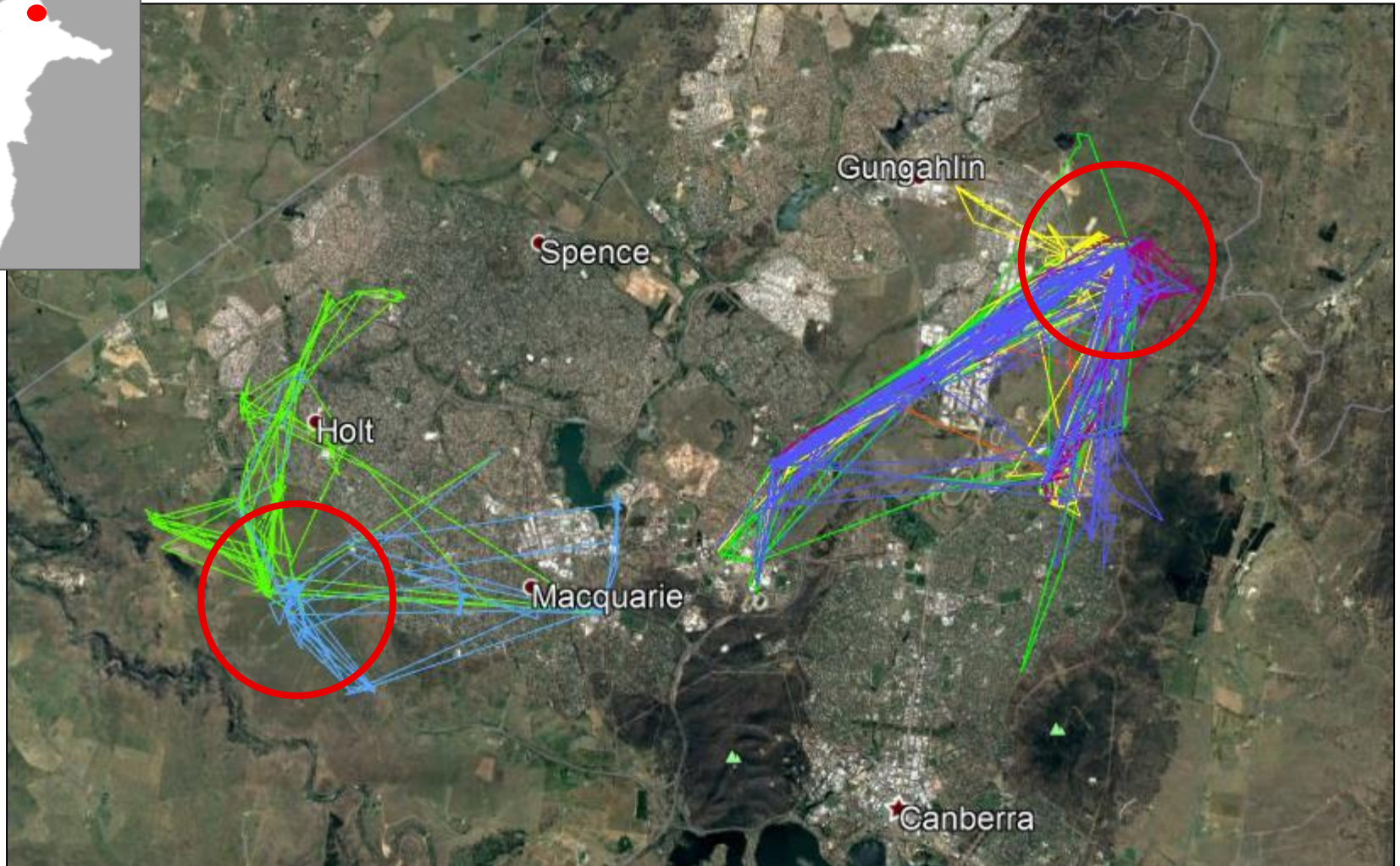
Movement



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Movement



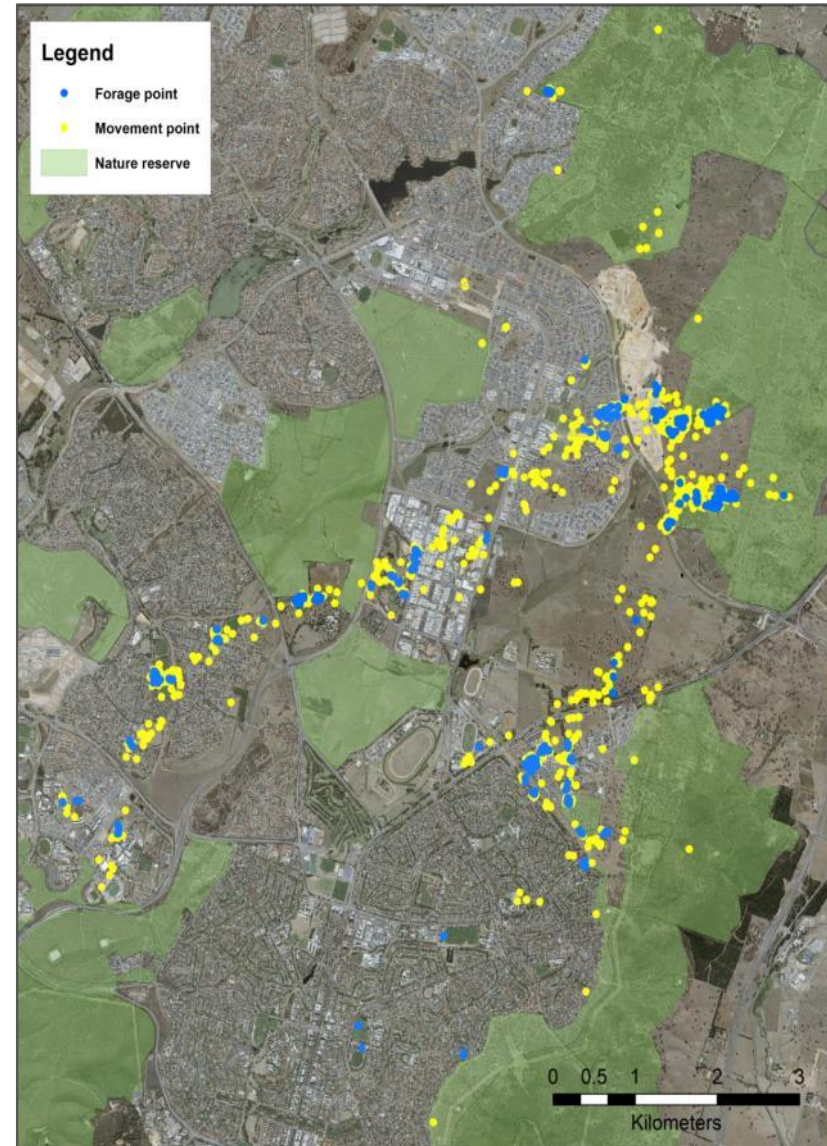
Different colours are different individuals (n = 8)

Movement



Where is foraging habitat?

- ✓ Most tracks in Yellow box -
Blakely's red gum woodland
Endangered ecological community
- ✓ Old remnant trees critical
Twice as likely to stop
- ✓ 25 % tracks in urban space
Mostly native-dominant areas
- ✓ Elms and Acacias preferred
for urban foraging
- ✓ Yellow box for movement



Research to Reality



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Outcomes to date:

Nest tree protection

Nest trees located, calculated reuse → significant tree register

Urban planning

Foraging species identified → urban design standards updated

Flight paths mapped → significant tree register

Updated superb parrot action plan

New research incorporated → ongoing research support

Survey guidelines revised → made public

Colour bands

73 birds banded → sightings are coming in

You can help!



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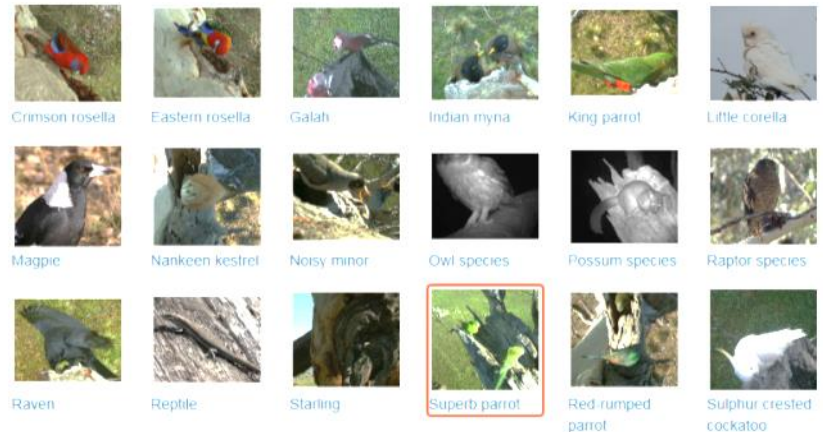
DigiVol: <https://volunteer.ala.org.au/>



Steps 1 2 3 4 5 6 7 8 9

Please indicate which species you see in the whole image.

Please see tutorial for help with species identification, and ignore humans.



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Australian National University

DBRG
Difficult Bird Research Group

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Kathryn McMahon



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