

# Connectivity conservation: connecting nature in space and time

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Connectivity conservation

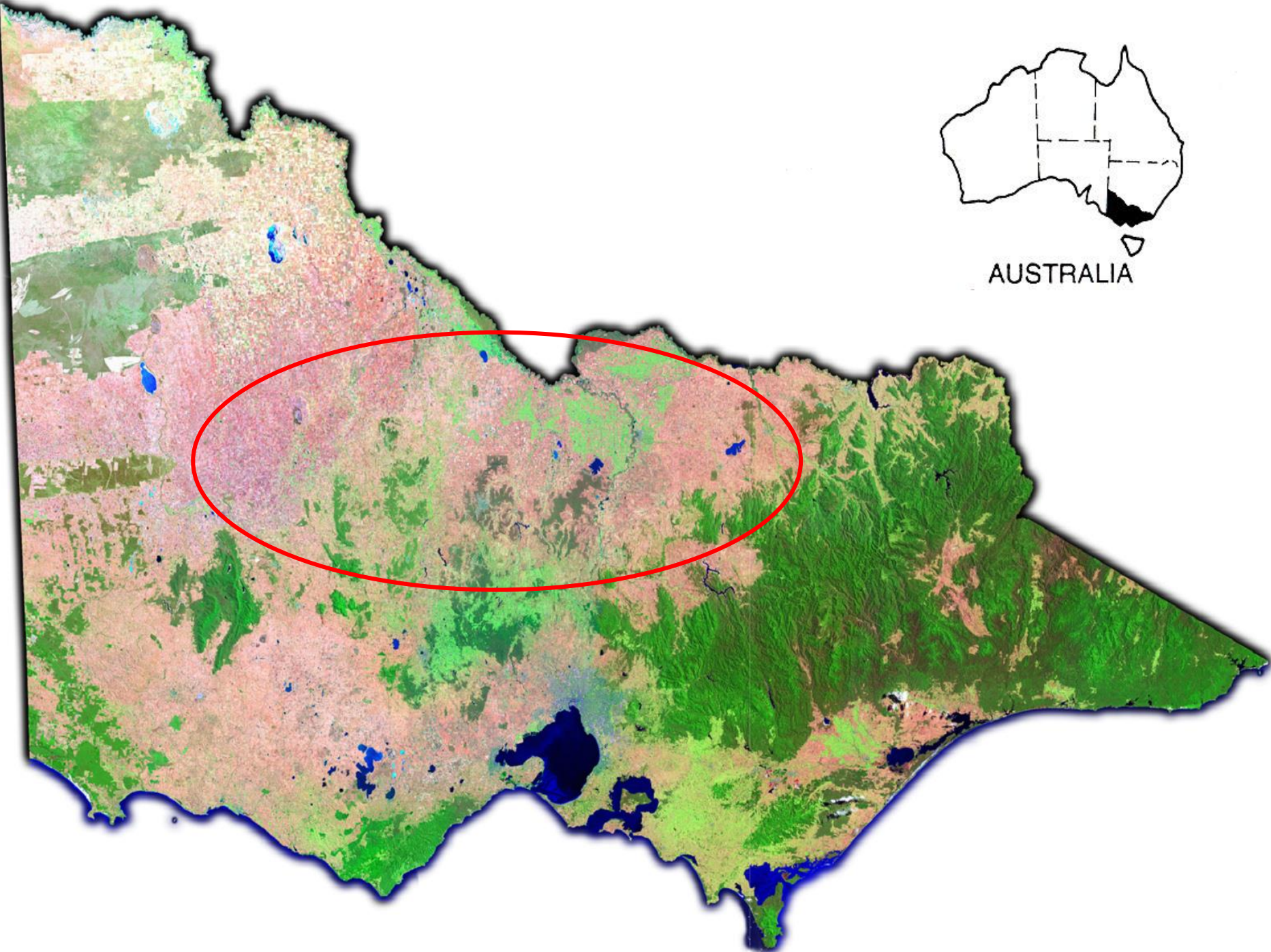
Connecting nature in space

Connecting nature in time





AUSTRALIA

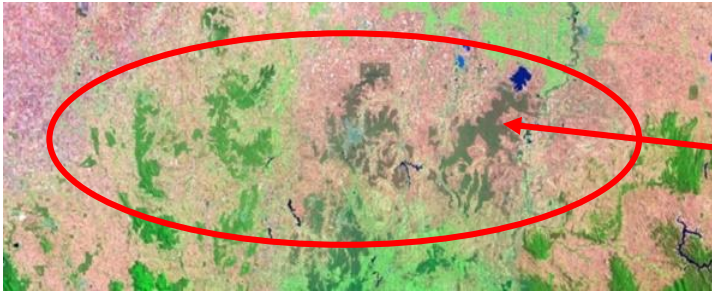


# Connectivity conservation

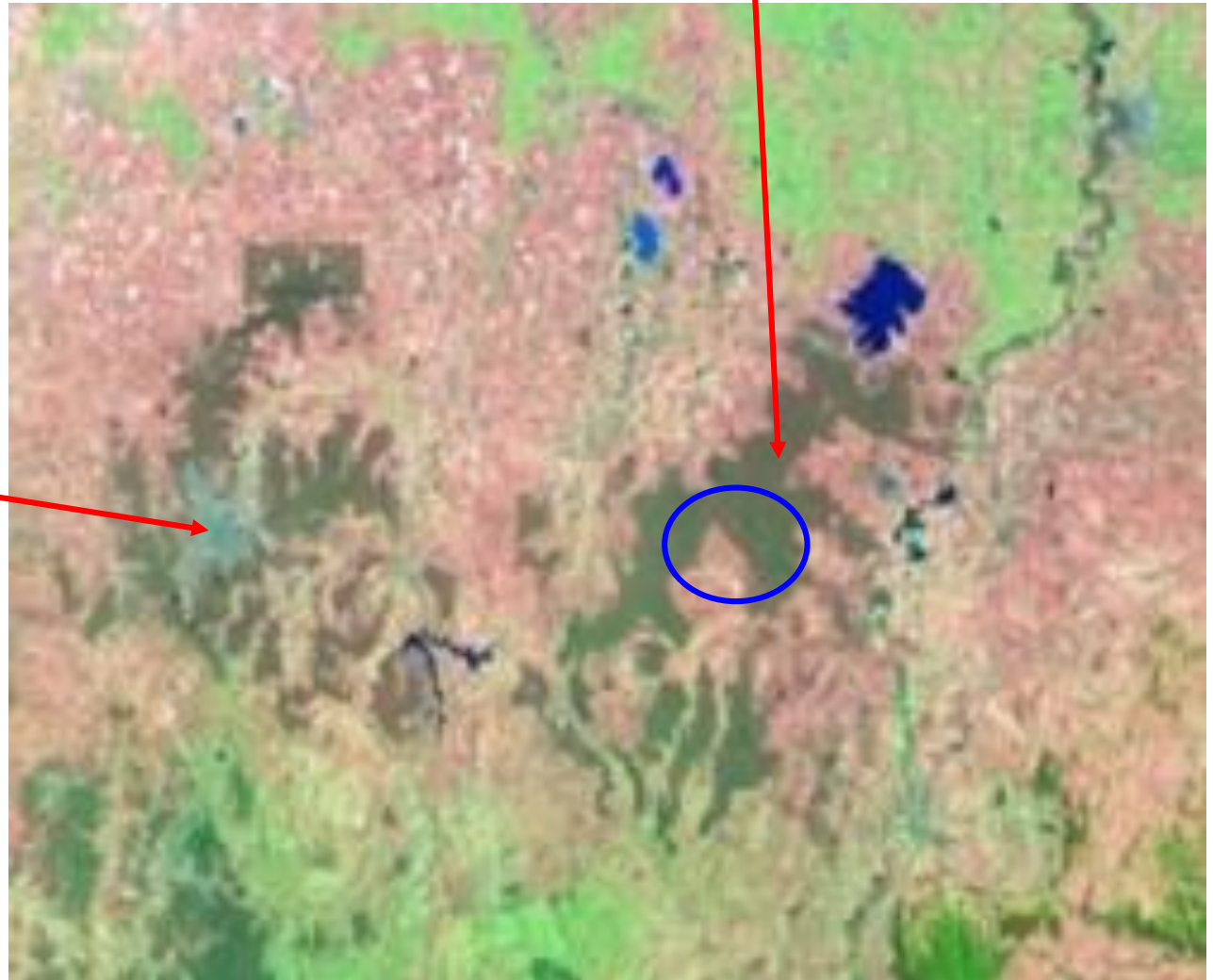
- Recognise the 'connectedness' of nature as a fundamental aspect for conservation
- Flows, movements, interactions, connectivity are everywhere
- Think about connected systems, networks of habitat

Where will this water go?





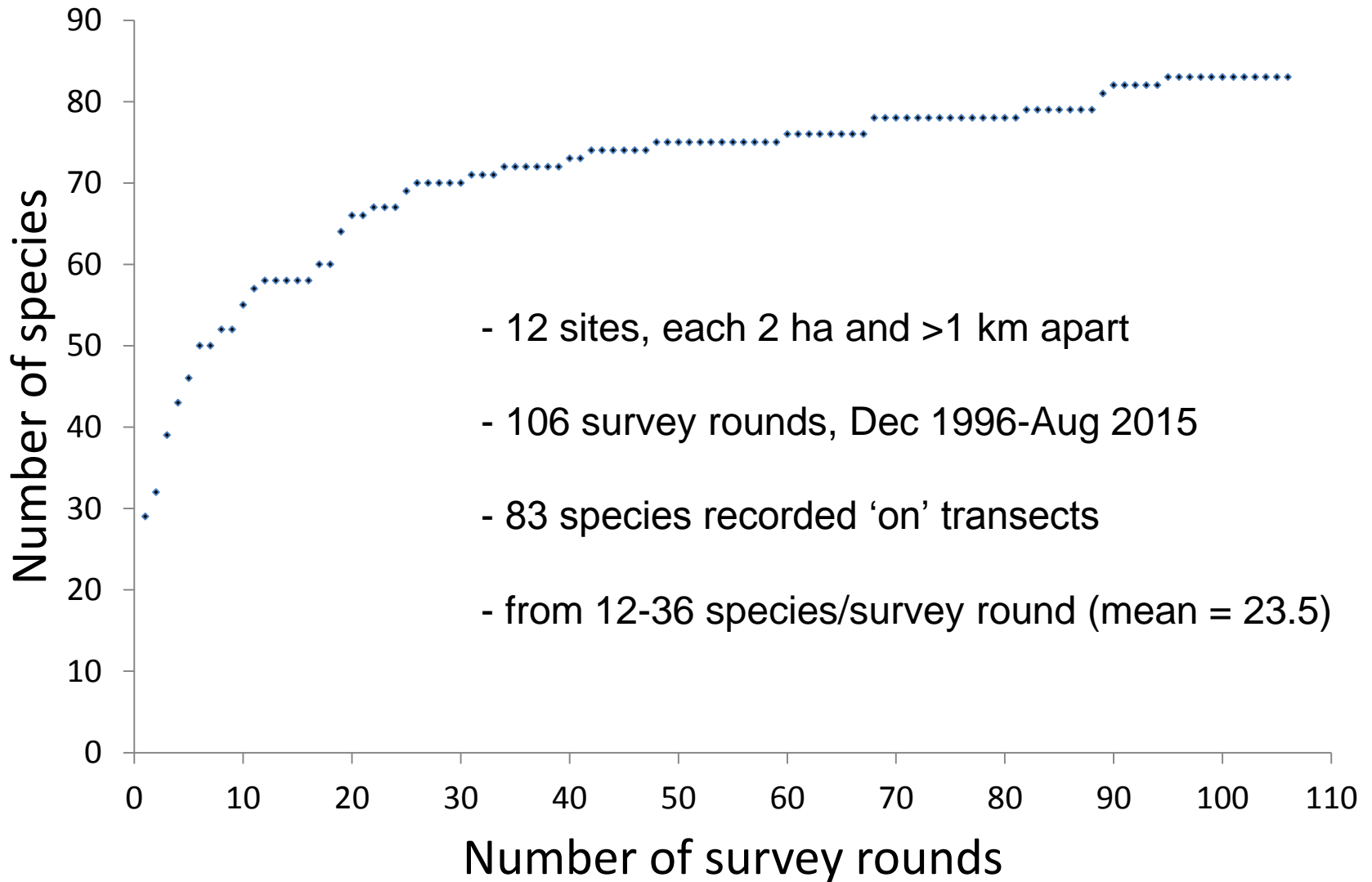
Rushworth Forest



Bendigo



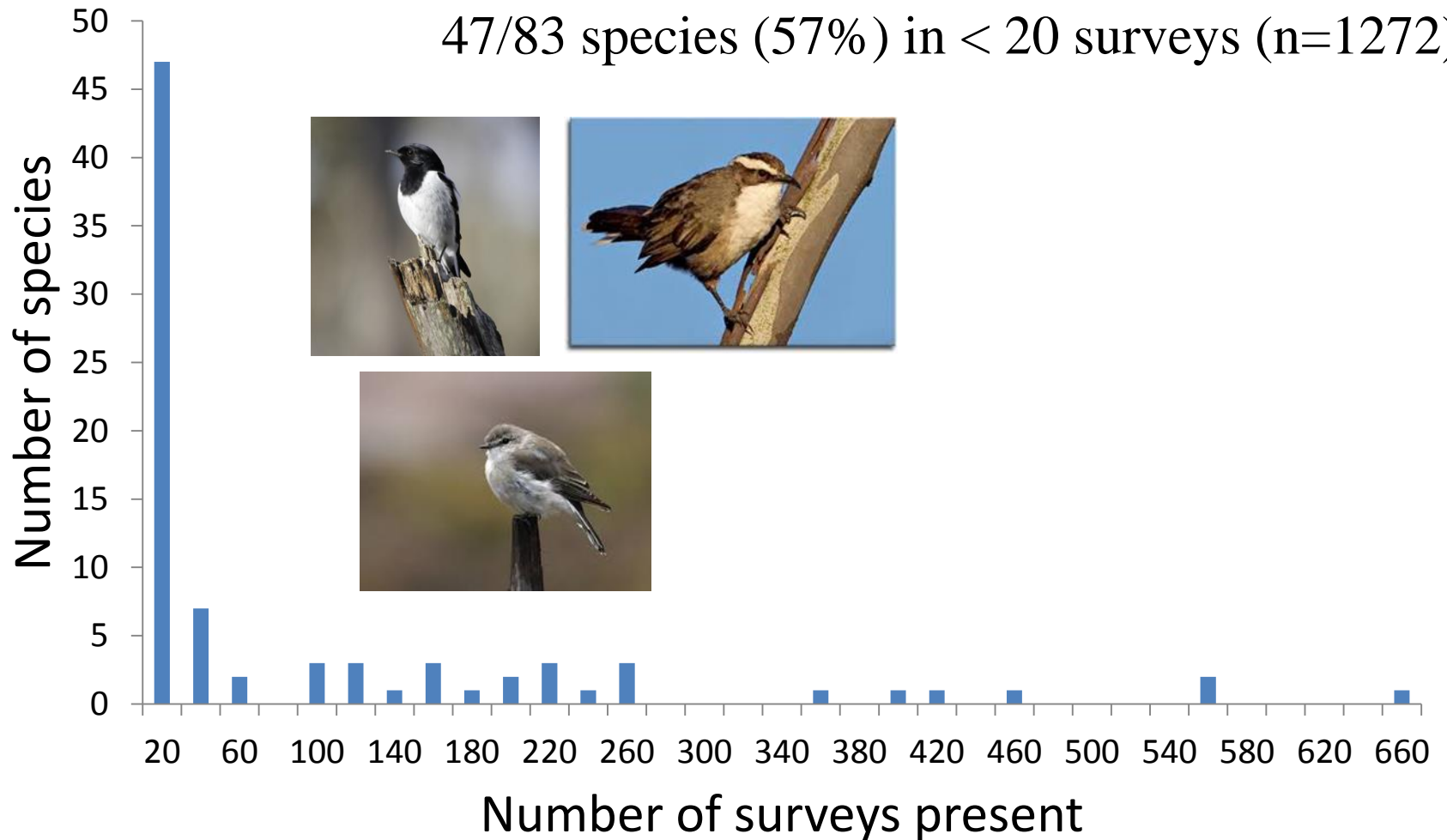
# Long-term bird surveys





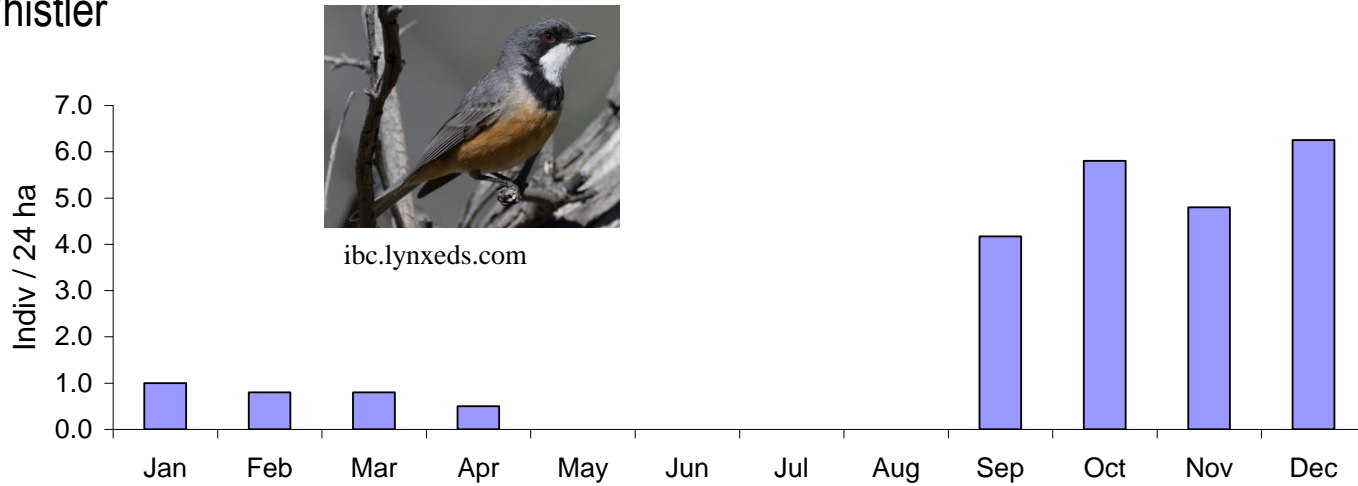
# Most species recorded infrequently – they move on and off the study area

47/83 species (57%) in < 20 surveys (n=1272)

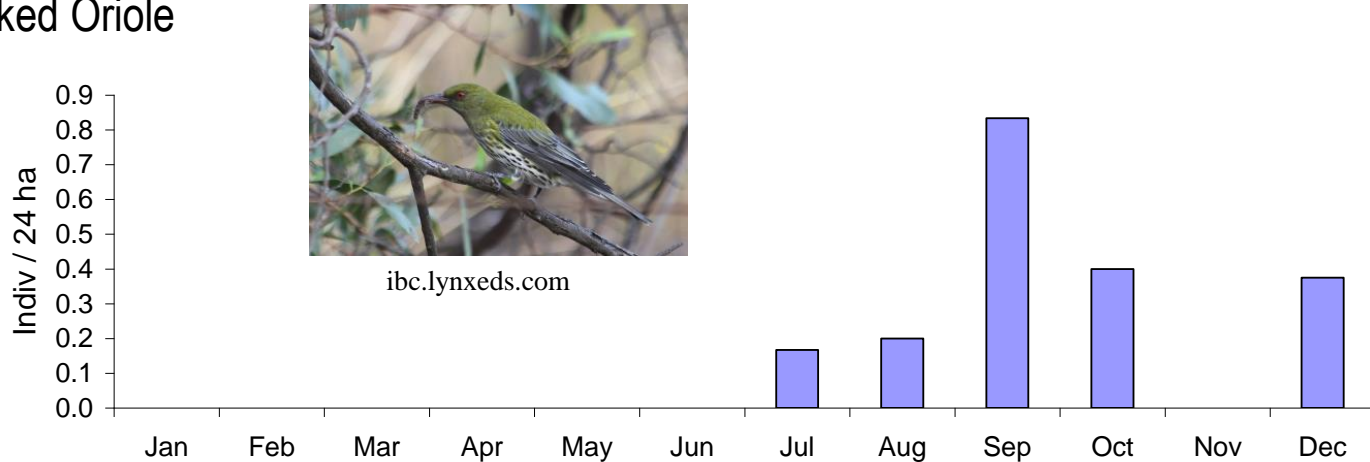


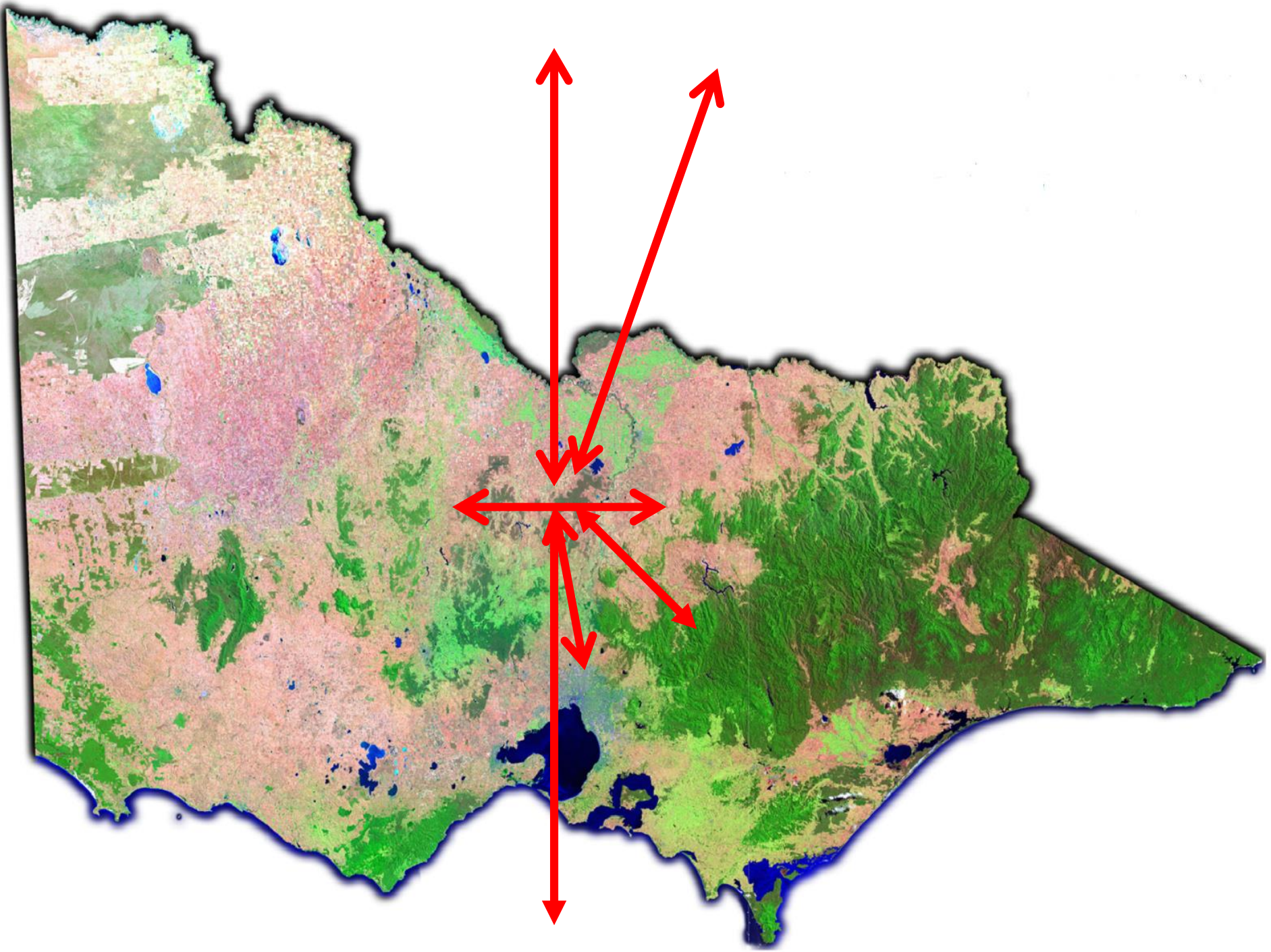
# Seasonal migration – spring/summer

## Rufous Whistler



## Olive-backed Oriole







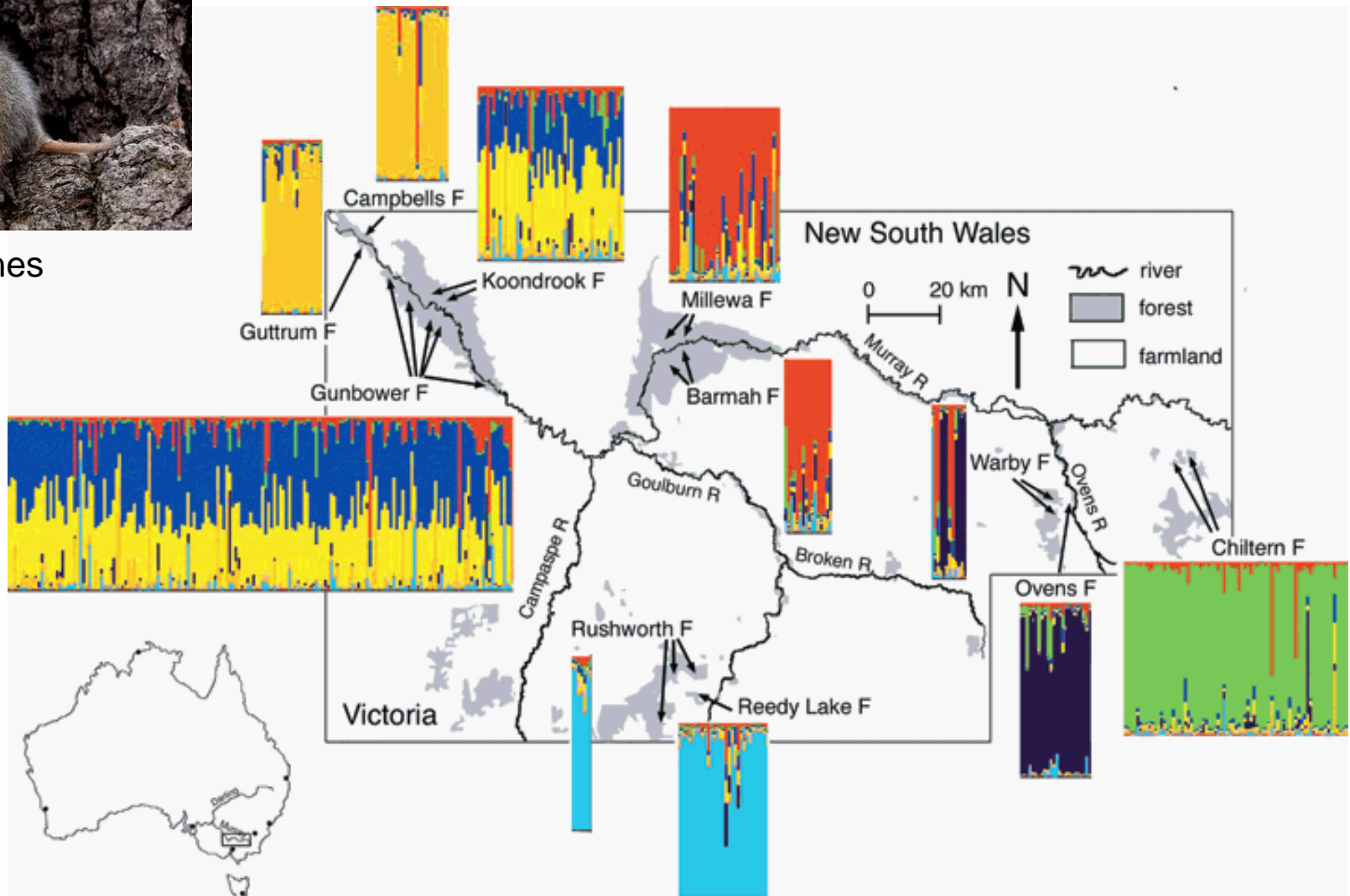
Nature is connected ... BUT those connections can be disrupted or lost



# Landscape genetics analysis for the Yellow-footed Antechinus



Russell Jones



# Different species, different movement patterns, different habitat tolerance



Russell Jones



Russell Jones



Geoff Park





Stream in the landscape – north-central Victoria







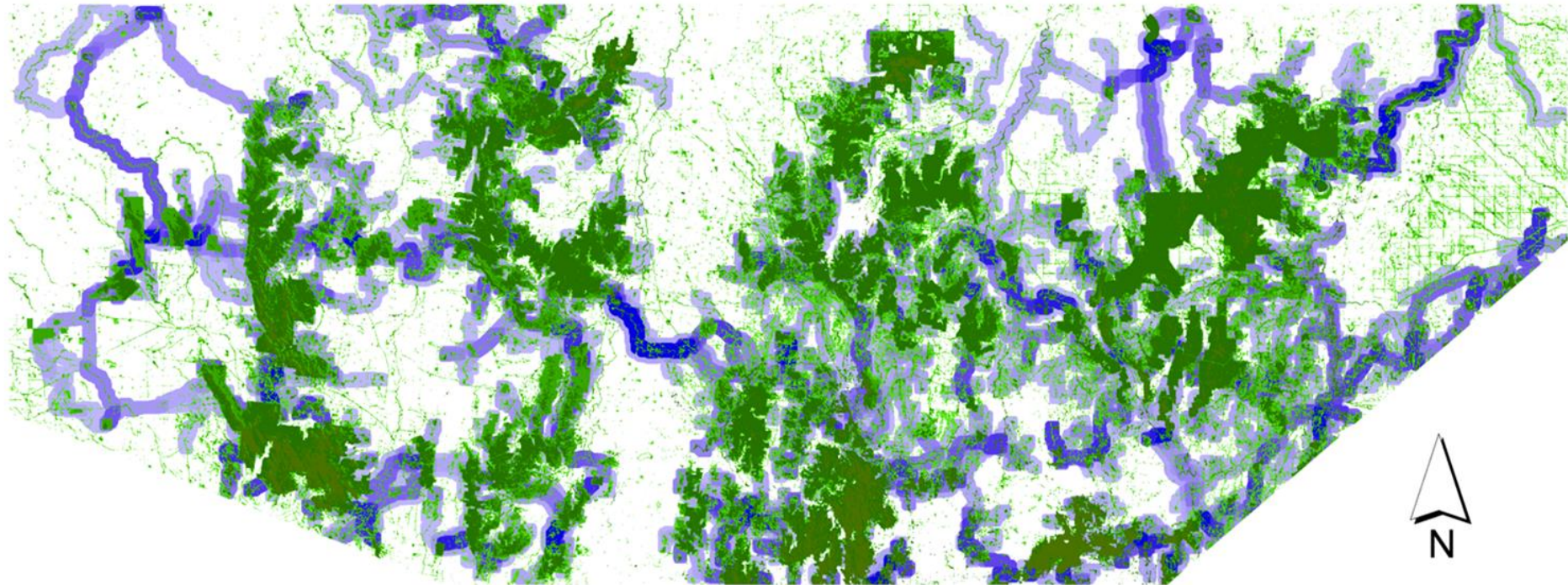


L. Lumsden

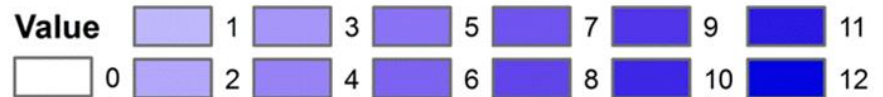


J. Alexander

# Overlay of modelled least-cost paths



0 10 20 40 Kilometers



## Building connections for a habitat network

- a) between existing (large) blocks (ie core habitat)
- b) incorporate stream systems where present
- c) incorporate other existing remnants  
(e.g. roadsides, patches, scattered trees)
- d) build from this basis, increase total amount of habitat

# Connecting nature in time (as well as space)

Many species depend on habitats and resources that change in availability through time.

Is there a sequence of resources in the right place through time?





Russell Jones











# Summary points

- Movements, flows, connectivity – the connectedness of nature is a core part of conservation
- Think in terms of networks and systems of habitat
- Protect, maintain and build from what is there
- Stream systems are a key part of the landscape
- Manage to ensure important resources are available through time

# What each individual does, matters!



It can add to the landscape, or it can degrade the landscape. It has a 'spill over' effect beyond the particular site.