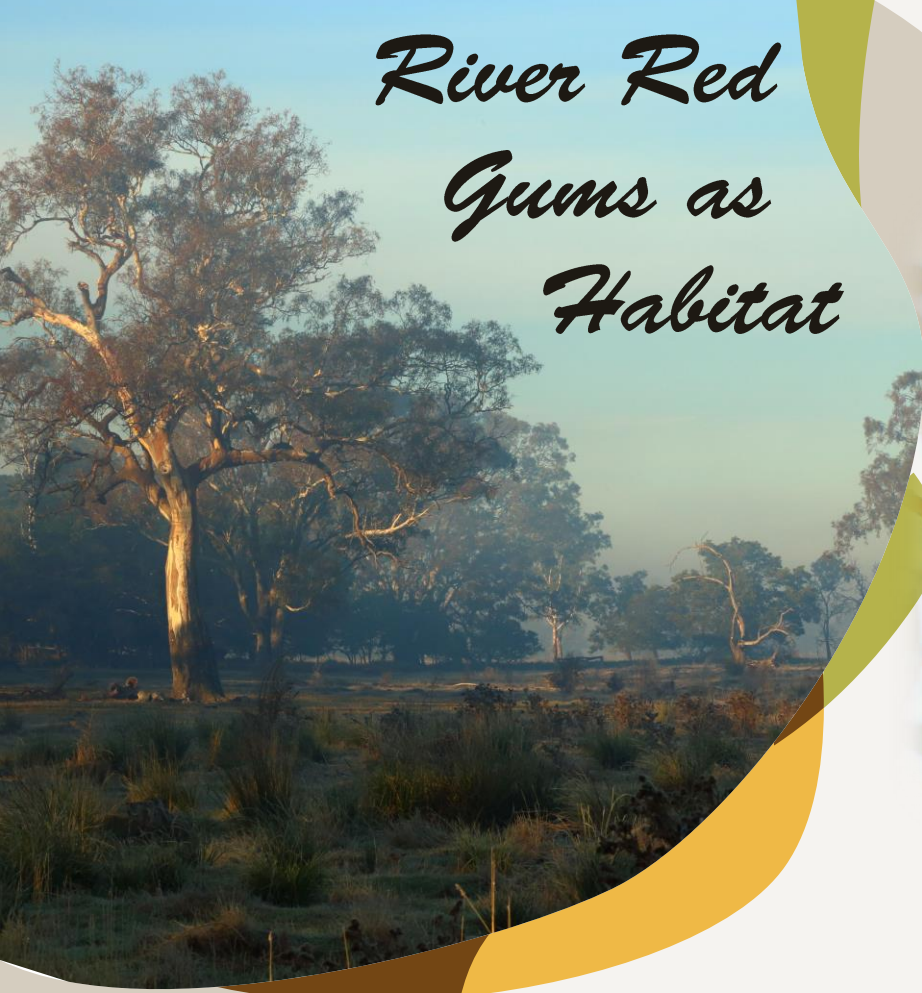


River Red Gums as Habitat



Dr Greg Kerr, Senior Ecologist
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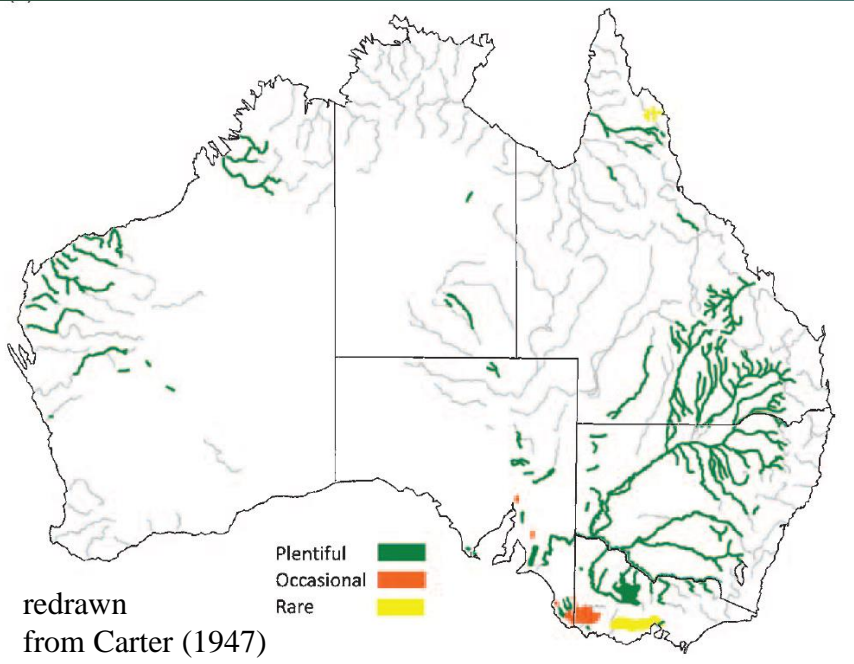
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Context



- ▶ The river red gum, *Eucalyptus camaldulensis*, has the most widespread natural distribution of any eucalypt species



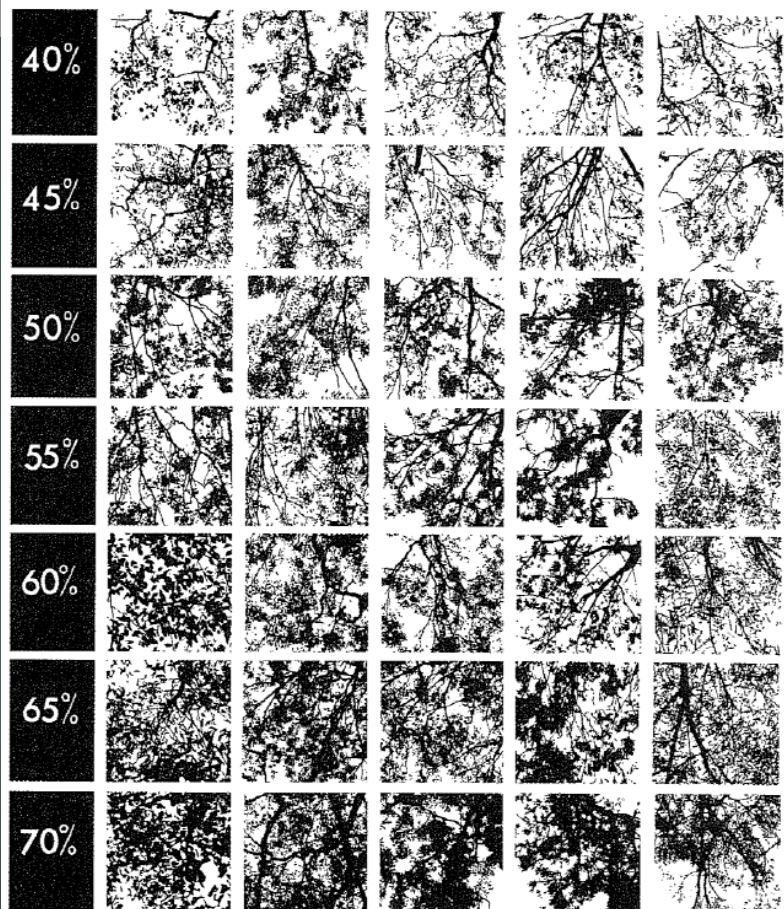
- ▶ Their distribution is linked with the alluvial floodplains, except...
- ▶ In the south of Victoria and adjacent SA, where they occupy large tracts of undulating hills and plains on heavier soils, including the volcanic plains westwards from Geelong, here they are not generally associated with existing floodplains and channels, though there is groundwater not far below the surface.

What is Woodland?



Life form and Height	Foliage Projective Cover of Tallest Plants			
	100-70%	70-30%	30-10%	<10%
Trees > 30 m	Tall closed-forest	Tall open-forest	(Tall woodland)	(Tall open-woodland)
Trees 10-30 m	Closed Forest	Open-forest	Woodland	Open-woodland
Trees < 10 m	Low closed-forest	Low open-forest	Low woodland	Low open-woodland
Shrubs > 2 m (Mallee)	Closed-scrub	Open-scrub	Tall shrubland	Tall open-shrubland

What is Woodland?





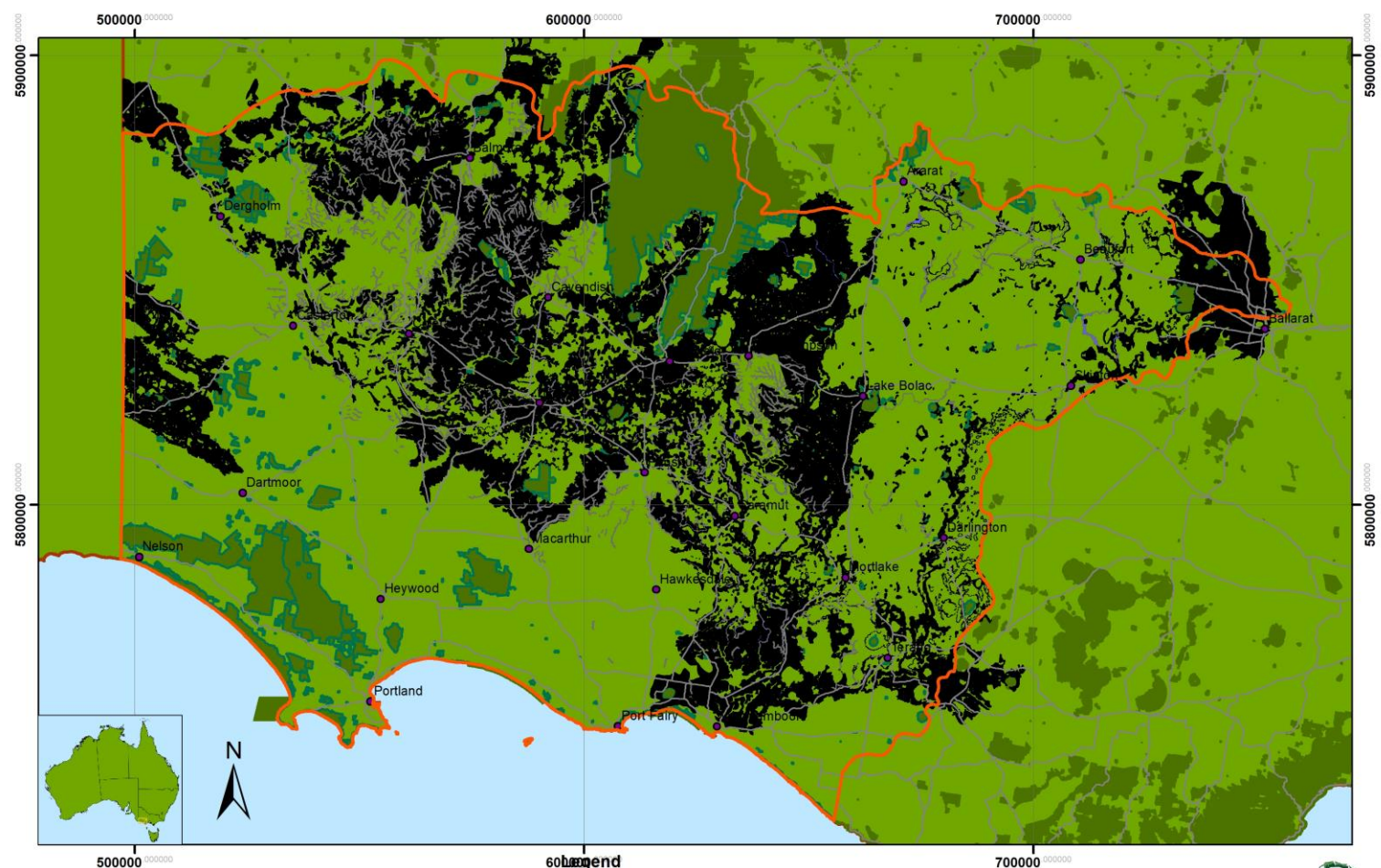
GHCMA Parks and Reserves



Legend

- GHCMA Boundary
- Towns
- VicRoads_Declared_Roads
- ParkRes_Clip_GHCMA
- Parks and Reserves





EVCs where RRG Dominate



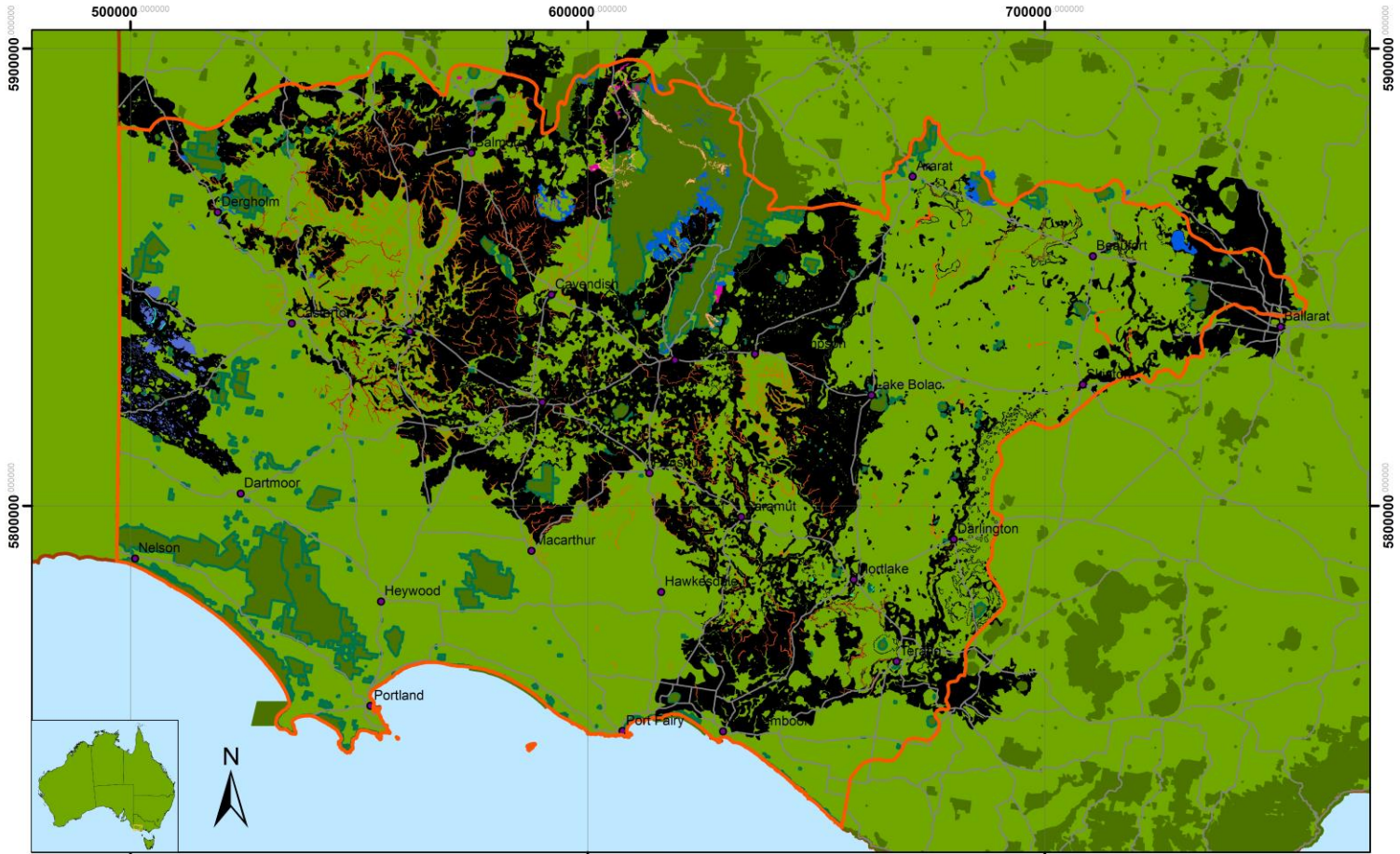


Context – Plant Species typical of EVC55-DT

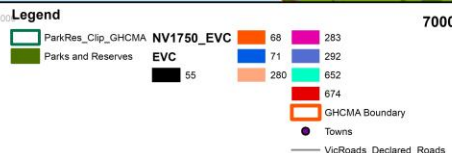
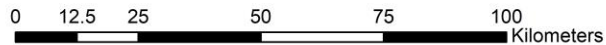


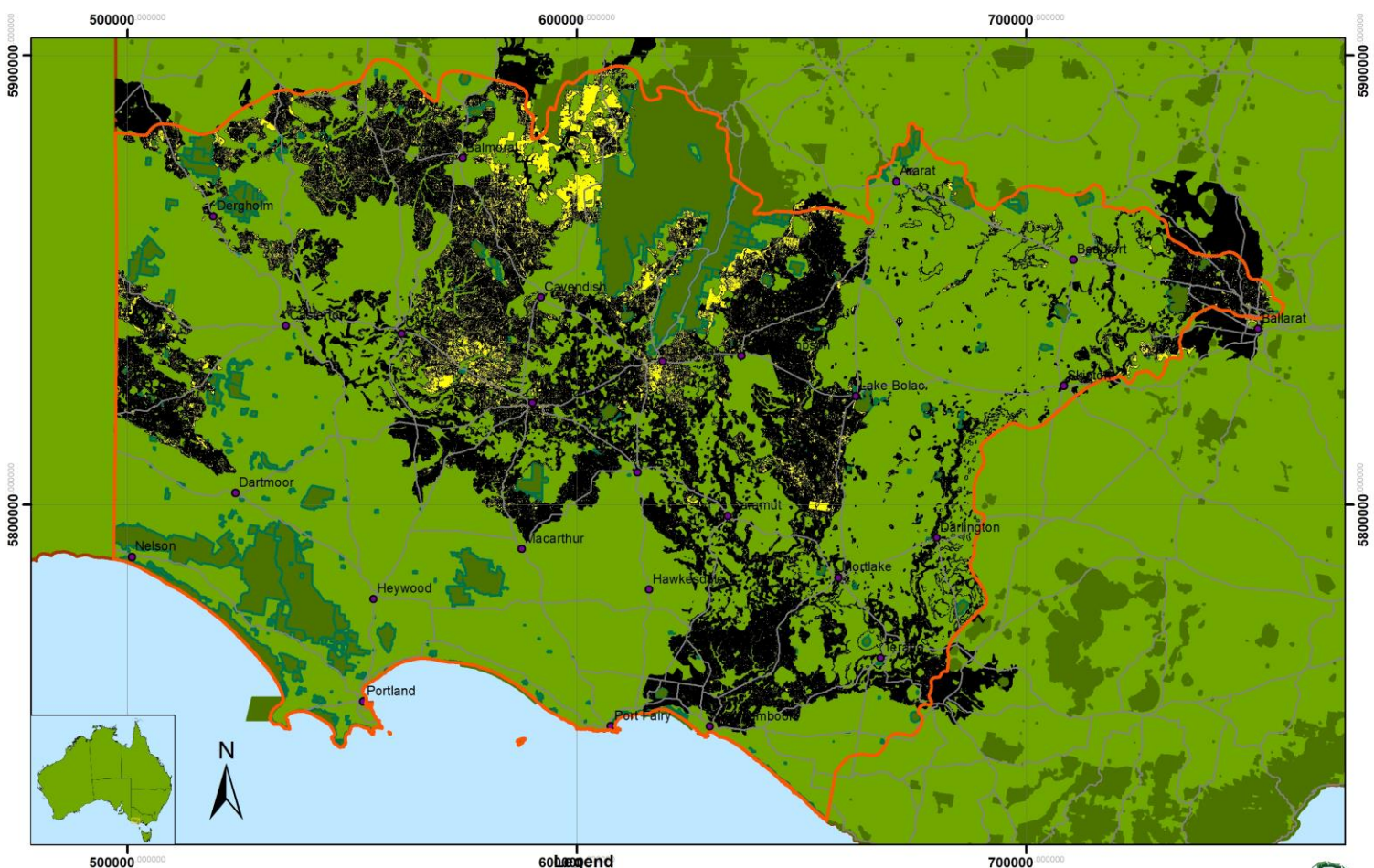
Pimelea humilis
Pimelea curviflora s.l.
Astroloma humifusum
Bossiaea prostrata
Hypericum gramineum
Drosera peltata ssp. *peltata*
Acaena echinata
Leptorhynchos squamatus
Drosera whittakeri ssp. *aberrans*
Hydrocotyle laxiflora
Solenogyne dominii
Austrostipa pubinodis
Schoenus apogon
Themeda triandra
Tricoryne elatior
Caesia calliantha
Microtis unifolia
Microlaena stipoides var. *stipoides*
Centrolepis aristata
Thysanotus patersonii
Convolvulus erubescens spp. agg.

Common Rice-flower
Curved Rice-flower
Cranberry Heath
Creeping Bossiaea
Small St John's Wort
Pale Sundew
Sheep's Burr
Scaly Buttons
Scented Sundew
Stinking Pennywort
Smooth Solenogyne
Tall Spear-grass
Common Bog-sedge
Kangaroo Grass
Yellow Rush-lily
Blue Grass-lily
Common Onion-orchid
Weeping Grass
Pointed Centrolepis
Twining Fringe-lily
Pink Bindweed



All RRG EVCs





EVC 55 Present Day Distribution



River Red Gum Communities - Groundwater Dependent Ecosystems



- ▶ The Plains Grassy Woodland community only has one dominant tree species - the RRG.
- ▶ Root system has two parts
 1. Surface - rainfall
 2. Tap - ground water.
- ▶ Groundwater Phreatophytes

When the surface is dry the movement of ground water via the xylem in the roots to the surface (hydraulic redistribution) means that water leaks out of the surface roots into the surrounding soil.

This provides benefits to neighbouring plants.

Flowers

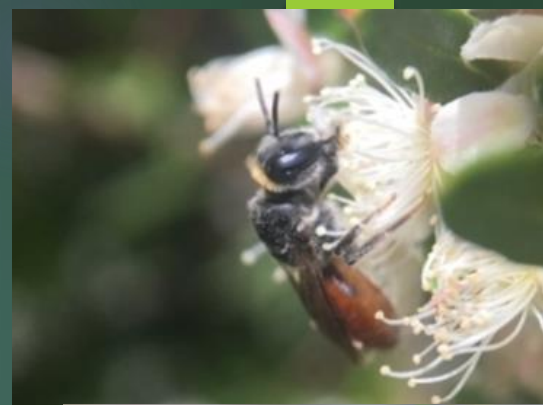
- ▶ Nectar – river red gum nectar is **not** attractive to birds
 - Honeyeaters are scarce and all feed mainly insects or plant and insect exudates
 - Important to insects – particularly
 - Coleoptera (beetles),
 - Diptera (flies),
 - Lepidoptera (moths),
 - Neuroptera (lacewings)
 - Formicidae (ants)
 - Hemiptera (true bugs)



Pollen

Important to:

- Insects E.g. the short-tongued plasterer bees such as *Euryglossa*
- Lorikeets
- Sugar glider



RRG Seeds

- Ants e.g. *Monomorium rothstenei*

- ▶ 15 seeds / fruit
- ▶ 700 000 viable seeds / kg
- ▶ Seeds are wind and water dispersed
- ▶ Seed drop in spring



Photo: S

Fruit and seeds of RRG and grasses etc

- ▶ Parrots



- ▶ Terrestrial pigeons and doves



Leaves - Sap

- ▶ Sap is low in protein content and high in sugar
- ▶ Insects
 - ▶ Sap Suckers – Hemiptera e.g. Psyllids, leaf hoppers, scale insects and coreid bugs
 - ▶ Honeydew excretions

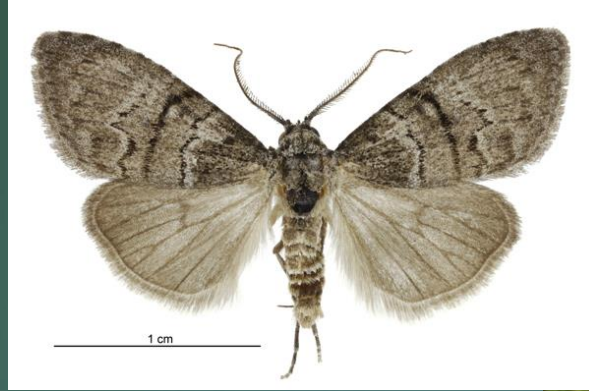


Leaves

► Insects

► Leaf Chewers – e.g.

- gum leaf skeletoniser moth
- Christmas beetles
- sawflies
- stick insects



Leaves

► Mammals

- Common ringtail possum
 - 50% of diet is mature leaves
- Common brushtail possum
 - + mainly ground storey herbs and grasses, fruits and some insects



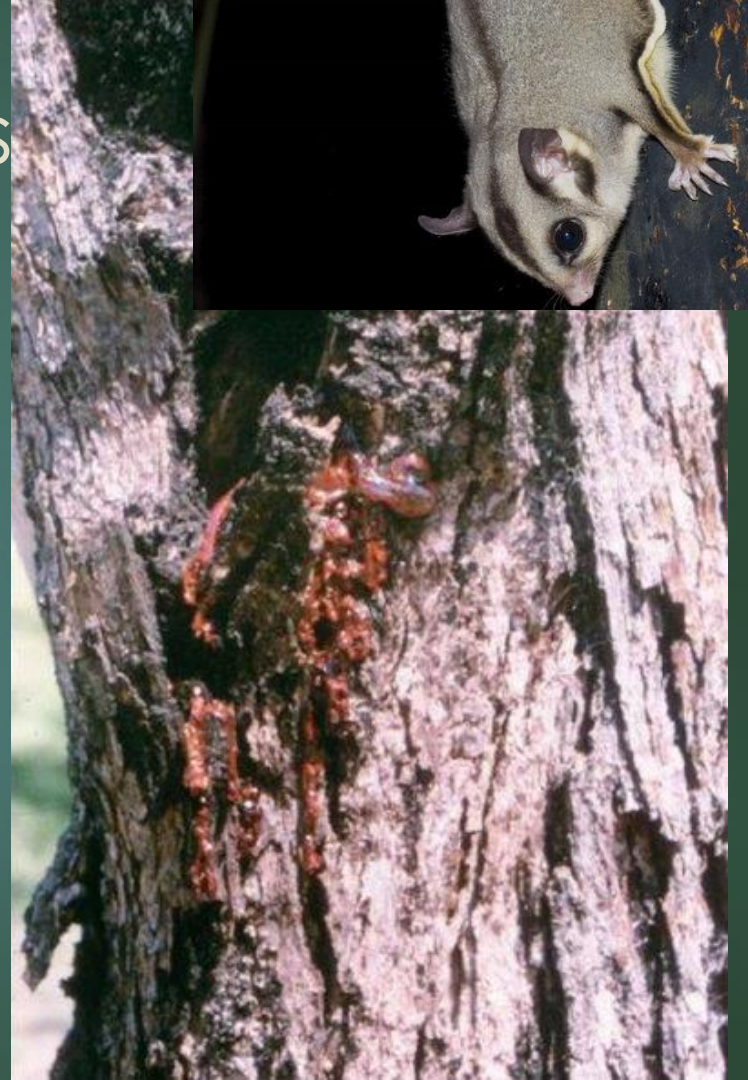
Trunks, bark and branches

- ▶ Birds
 - ▶ Brown treecreeper
 - ▶ Crested shriketit



Trunks, bark and branches

- ▶ Birds
 - ▶ Brown treecreeper
 - ▶ Crested shriketit
- ▶ Mammals
 - ▶ Squirrel gliders – access sugars etc in phloem by cutting excisions in trunks



Timber and leaves on the ground

- ▶ Brown treecreeper
 - ▶ Rely on ground mosaics that contain large areas of **leaf litter** with **bare ground** and **fallen timber** for suitable foraging
- ▶ Diamond firetail
 - ▶ Rely on ground mosaics that contain large areas of **leaf litter** with **bare ground** and **native grass** cover for suitable foraging



Understorey

- ▶ Birds that feed on the ground make up a higher proportion of the community than in other forest types e.g willie wagtail, Australian magpie, Australian magpie lark, superb fairywren, scarlet robin



Insects and Birds

- ▶ Hawkers
 - ▶ Willie wagtail
 - ▶ Grey fantail
- ▶ White-plumed honeyeater
- ▶ Brown-headed honeyeater



Insects and Birds

- ▶ Leaf and twig gleaners

- ▶ Weebill

- ▶ Spotted pardalote (winter)

- ▶ Striated pardalote

- ▶ Striated thornbill



Insects and Birds

- ▶ Sweeping

- ▶ Dusky Woodswallow

- ▶ Tree Martin

- ▶ Welcome Swallow

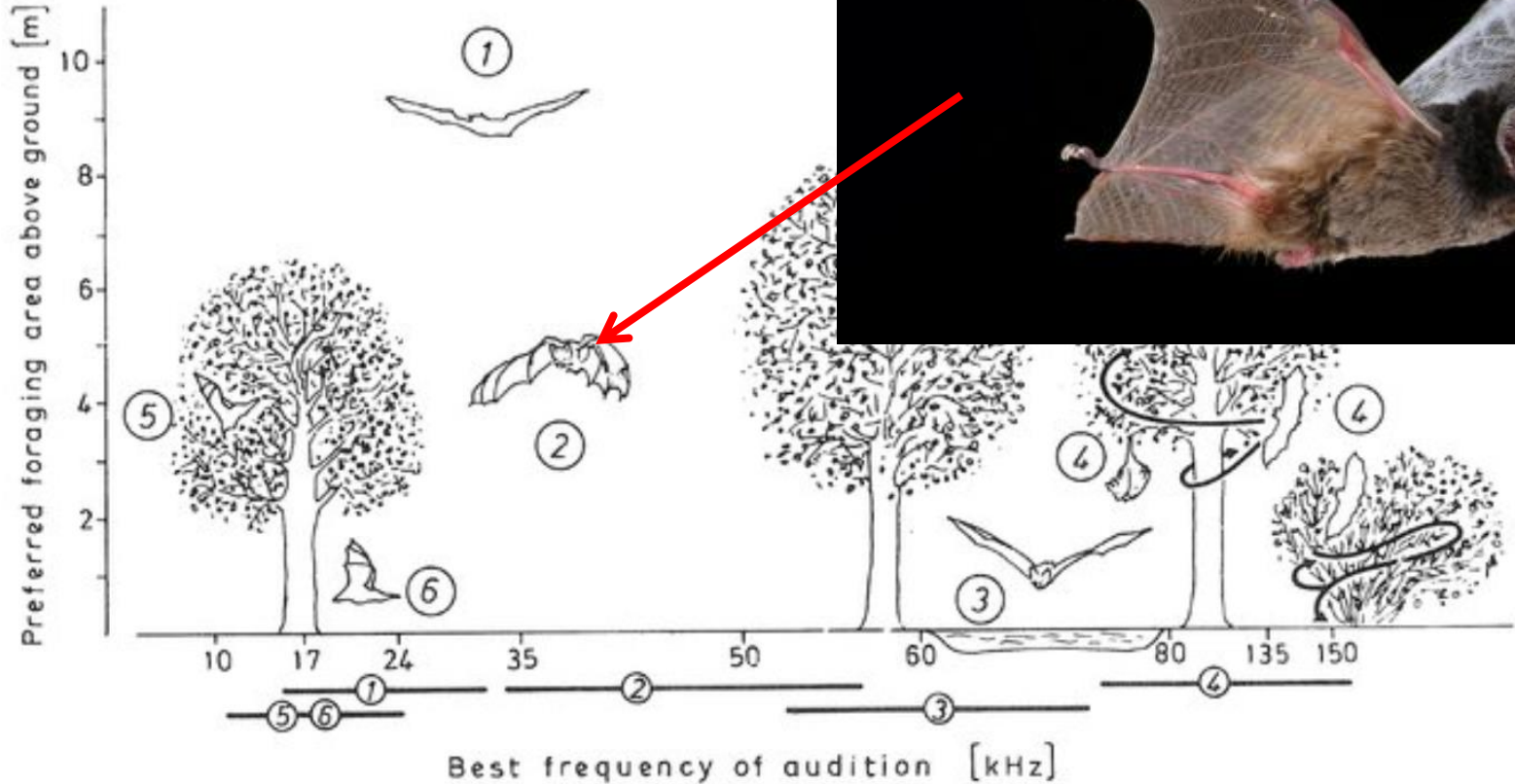
- ▶ Wood searchers

- ▶ Grey Shrike Thrush

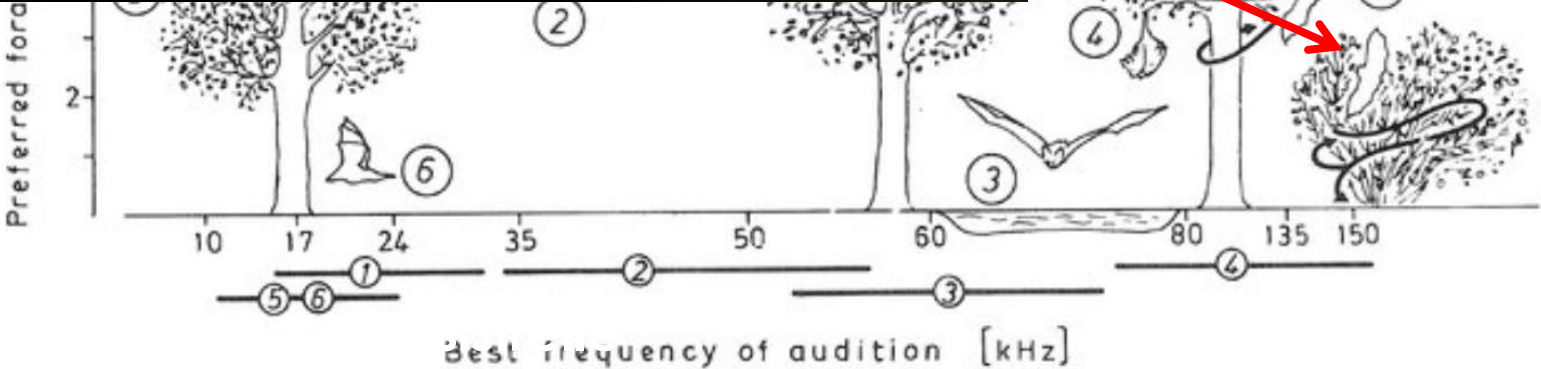


Foraging - Bats

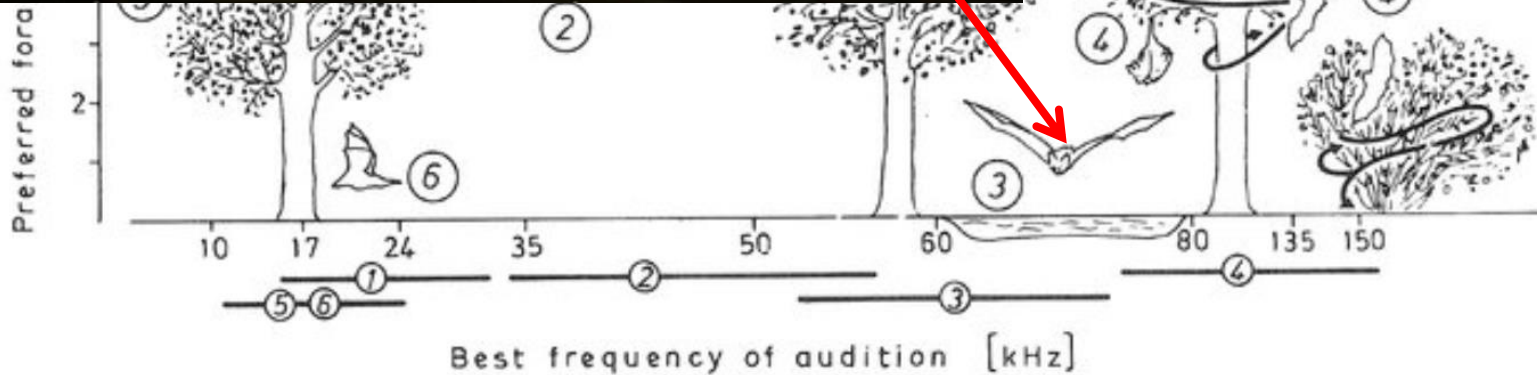
Gould's Wattled Bat



Southern Forest bat



Large-footed Myotis

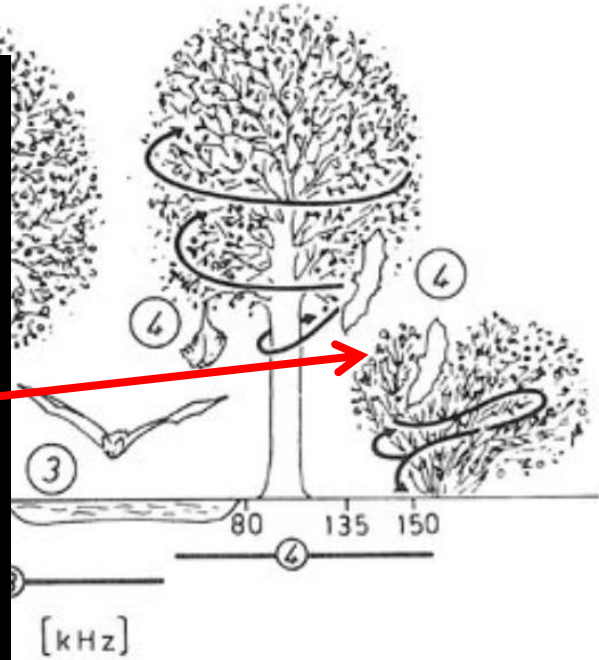


Foraging - Bats

Lesser long-eared bat



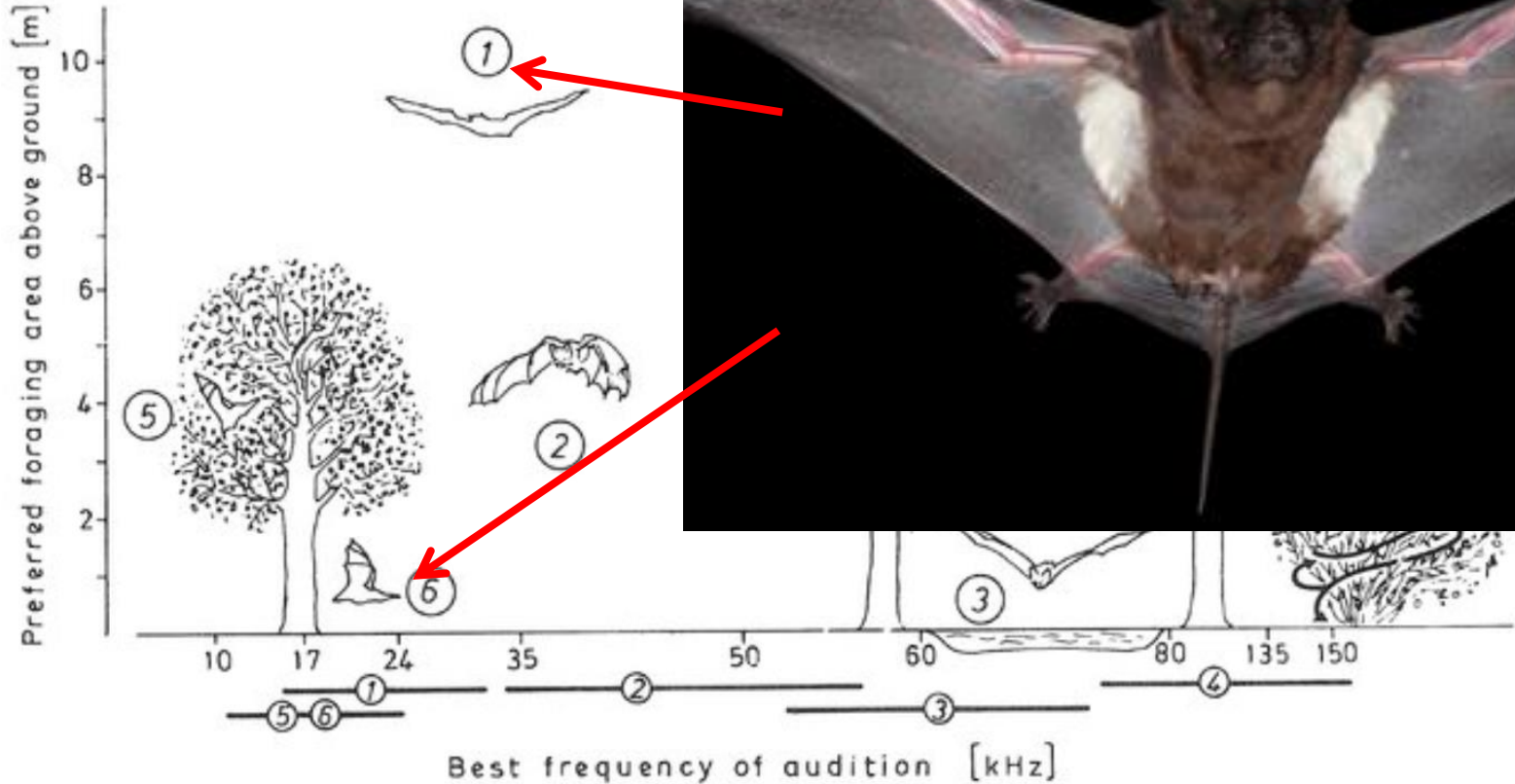
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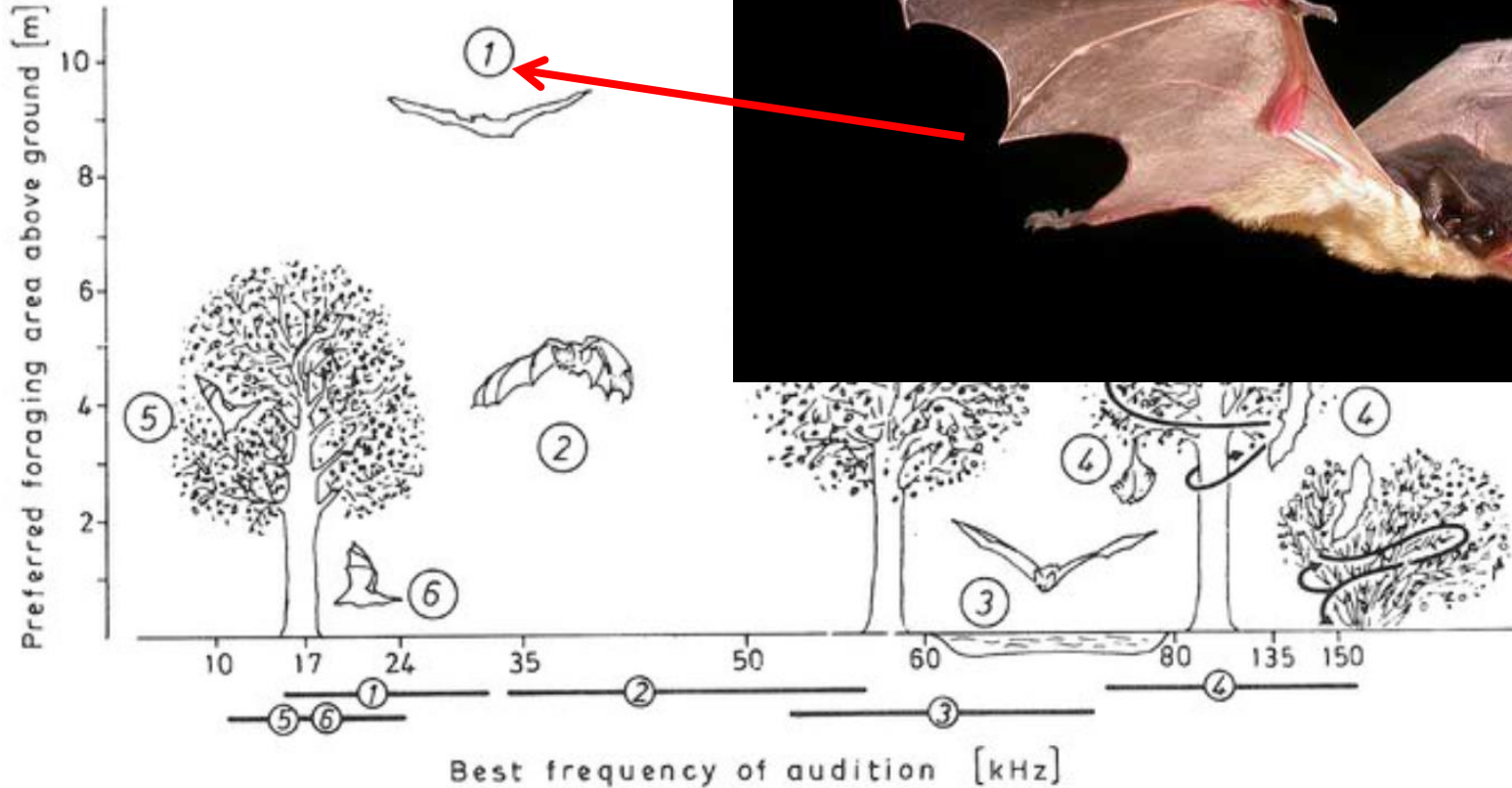
Foraging - Bat

White-striped Freetail Bat



Foraging - Bats

Yellow-bellied Shearwater Bat





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Mistletoe

► Mistletoe bird



Reptiles

- ▶ Eastern tree skink
- ▶ Tussock skink
- ▶ Eastern three lined skink
- ▶ Tree dragon
- ▶ Marbled gecko
- ▶ Eastern bearded dragon
- ▶ Eastern large striped skink
- ▶ Garden skink
- ▶ Southern grass skink
- ▶ Stumpy-tailed lizard
- ▶ Tree goanna
- ▶ Little whip snake
- ▶ Eastern brown snake



Thank you



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