Corymbia calophylla (Marri) is a major resource for native bees in the southwest Western Australian biodiversity hotspot

Kit S. Prendergast & Nicole Willers

Keystone species for pollinators

Whilst a common trope is that plant diversity begets pollinator diversity, it is also known that certain species can act as keystone species, supporting a high biodiversity of species: we show that *Corymbia calophylla* (Marri) is one such species for native bees.

Datasets: native bees visiting Marri

[A] 8 sites urbanised Swan Coastal Plain (PhD) abundance data austral spring-early autumn 2016-2018

[B] 16 surveys across sites in SWWA (Swan Coastal Plain, Jarrah forest) austral spring-early autumn 2018-2022: collection data

[C] WA Museum Entomology collection data

Supports high native bee biodiversity

Eight-one species, in 19 genera, from four families, visit *C. calophylla*.

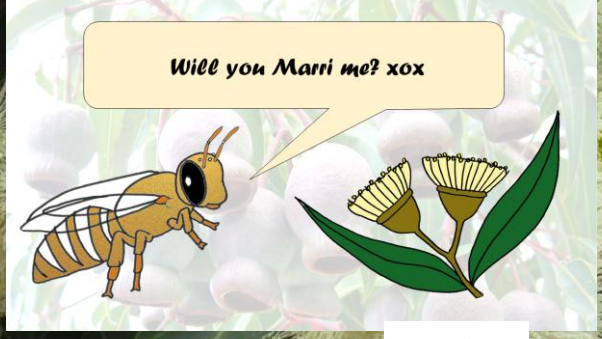
High proportion of Colletidae, especially *Euryglossina* (Australian endemic, Myrtaceae specialists).

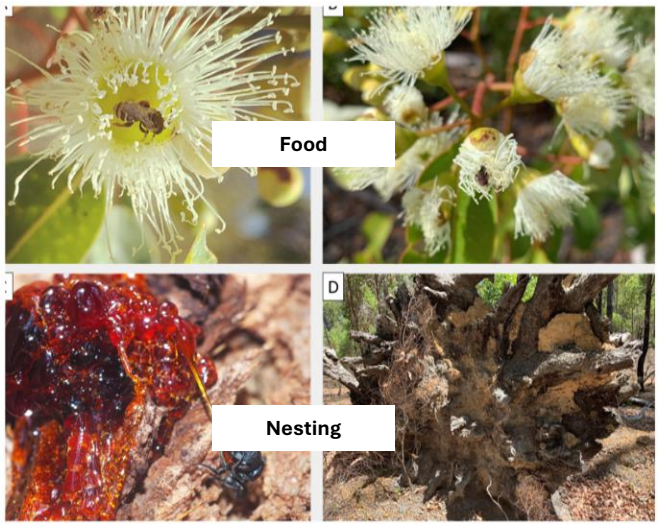
15% not able to be identified to described species.

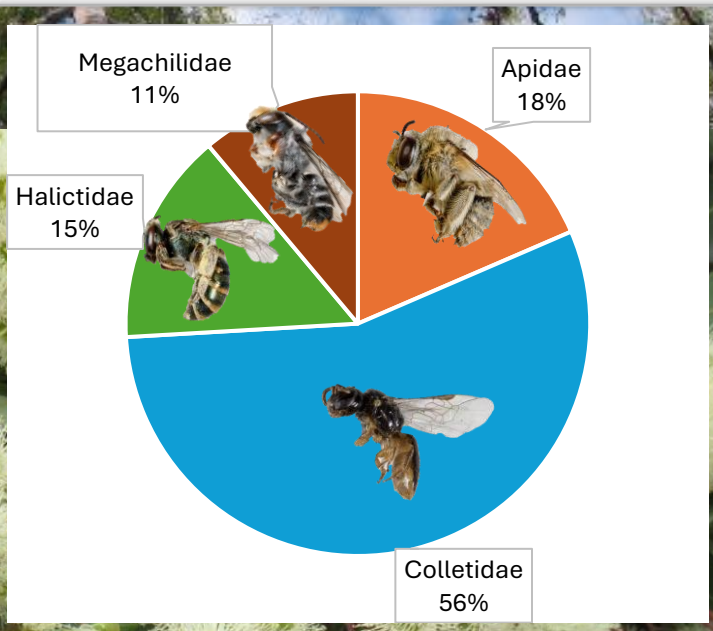
Supports majority of bee visits per survey where Marri was present

Surveys [A]: 94.4% ± 36.0% bees observed foraging

Surveys [B]: 89.2% ± 4.5% of bees collected







Threats

- Climate change
- Resource competition by *Apis mellifera*
- Mining
- Disease (PSHB, dieback)
- Illegal logging
- Habitat loss, degradation, fragmentation (urbanisation, agriculture)

Conclusions: *Corymbia calophylla* is important landscape resource for native bees, blooming *en masse* at a time (late summer) when few resources are available, is visited by a high biodiversity of native bees, and is often the main flowering species visited at a site.

Department of Biodiversity, Conservation and Attractions
GOVERNMENT OF WESTERN AUSTRALIA

The Bee Babette
Dr Kit Prendergast