

How exotic plants and *A. mellifera* influence plant-pollinator network in remnant habitats: A preliminary analysis

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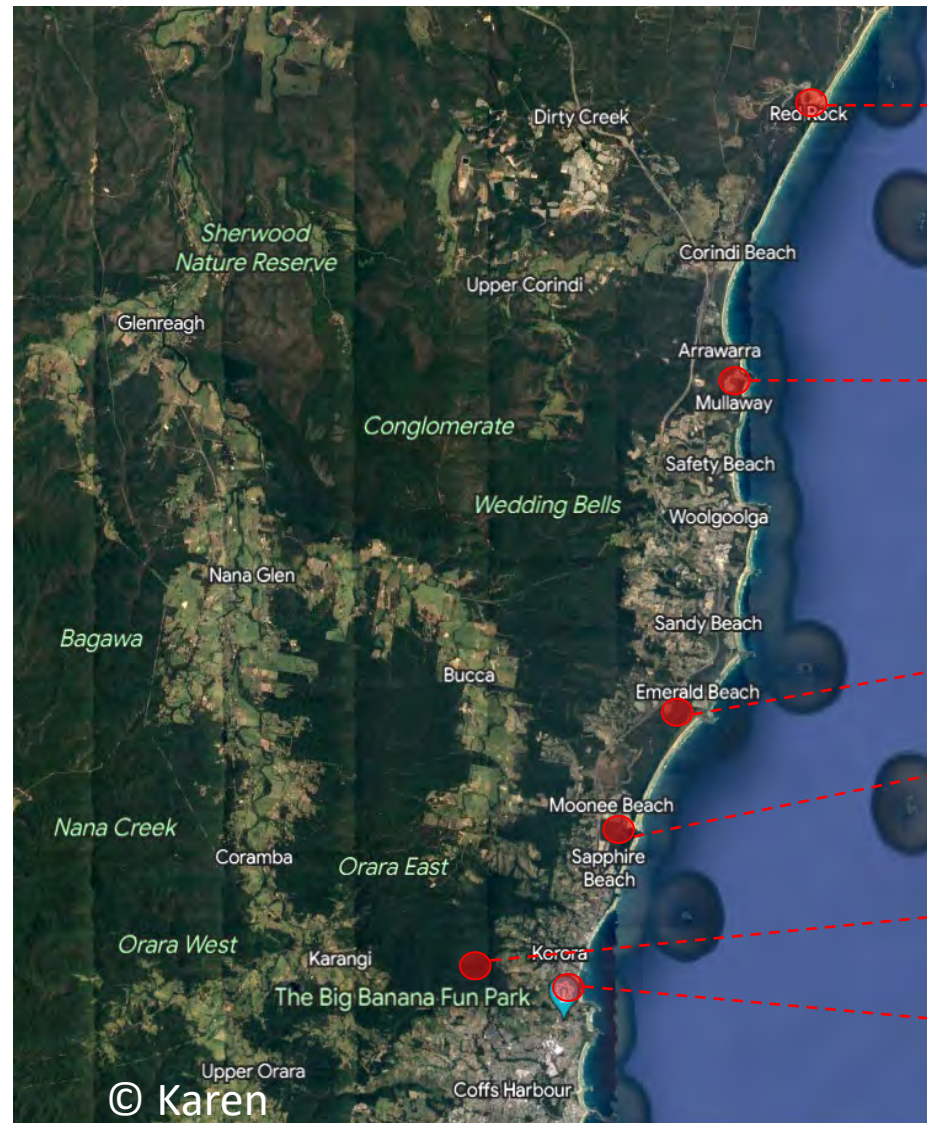


Objectives

- (i) Quantify plant-pollinator community interactions in rainforest remnants
- (ii) Identify how characteristics of native species networks compare to networks that include interactions with exotic taxa



Method: Transect



Red Rock: 4 transects

Mullaway Headland: 3 transects

Emerald beach: 2 transects

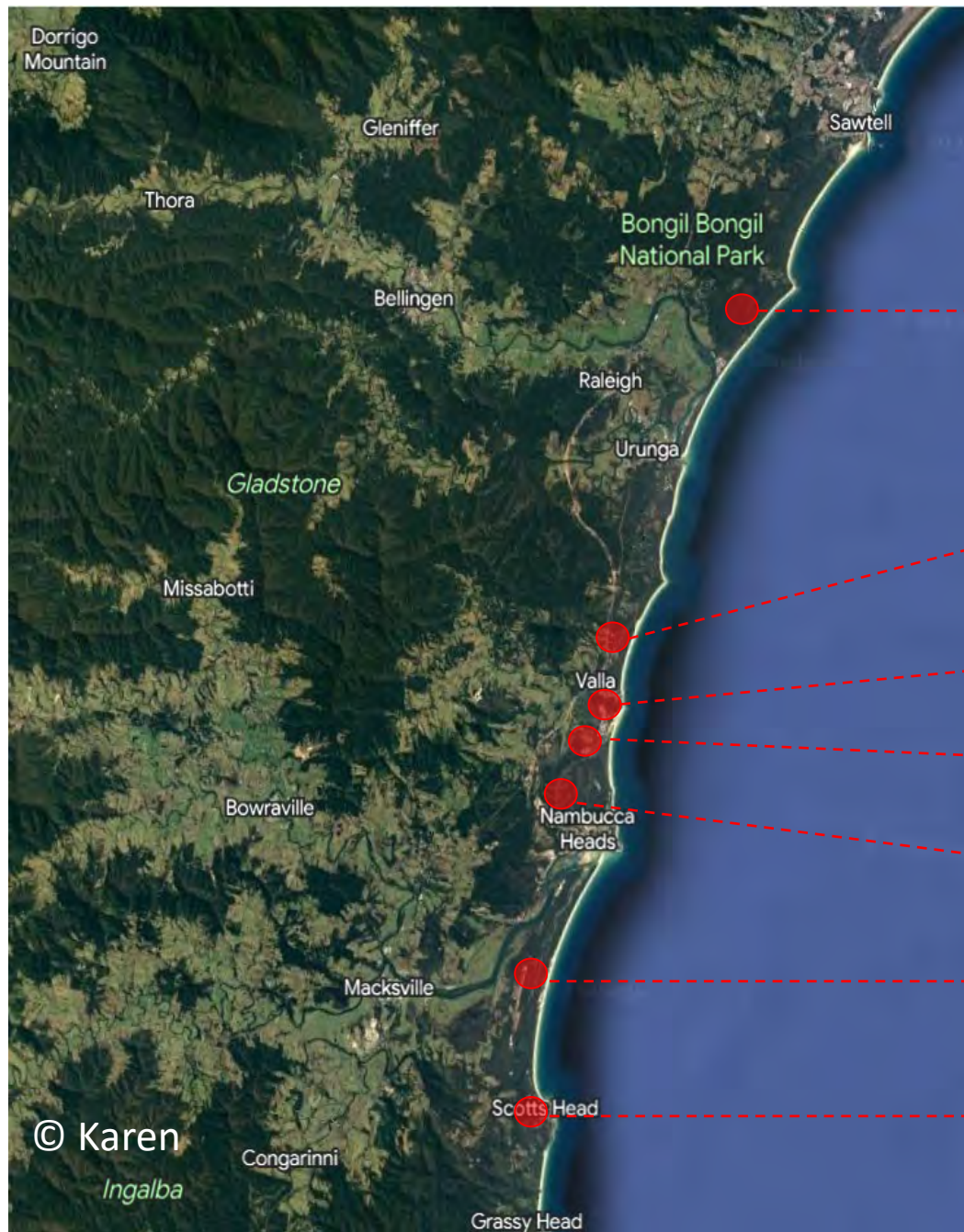
Moonee beach: 7 transects

Ulidarra National Park: 3 transects

Charlesworth beach: 5 transects



Moonee beach



Bongil Bongil National Park: 6 transects

Jagun Nature reserve: 5 transects

South Valla beach: 2 transects

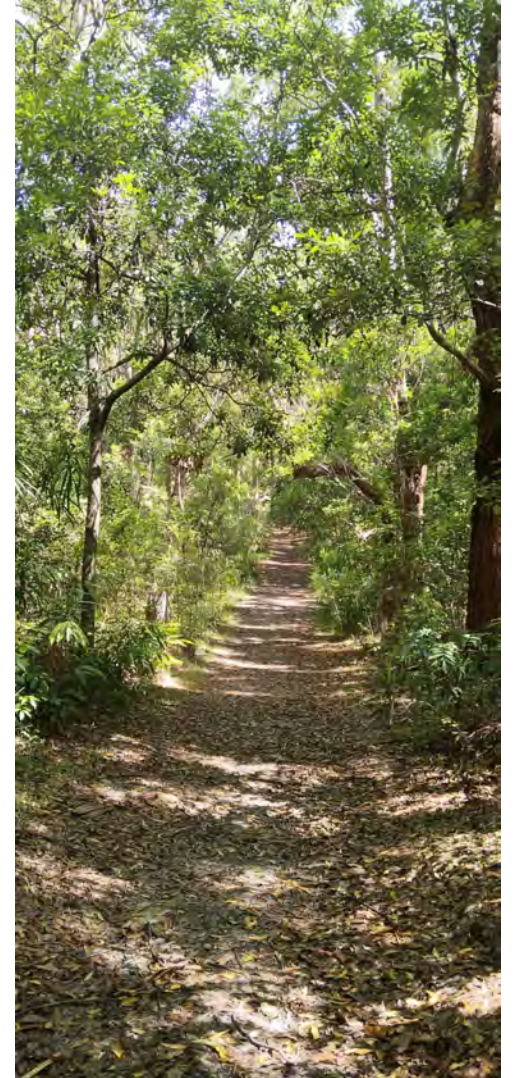
Hyland Park: 6 transects

Nambucca State Forest: 4 transects

Gaagal Wanggaan National Park: 3 transects

Wakki beach: 2 transect

Habitats surveyed



Findings

- Plants: 52 native and 27 exotic species from 45 families
- Visitors: 11 orders and 38 families



Helianthemum



Flame lily



Pigface



Thysanotus



Everlasting daisy



Scaevola



Pimelea



Goodenia



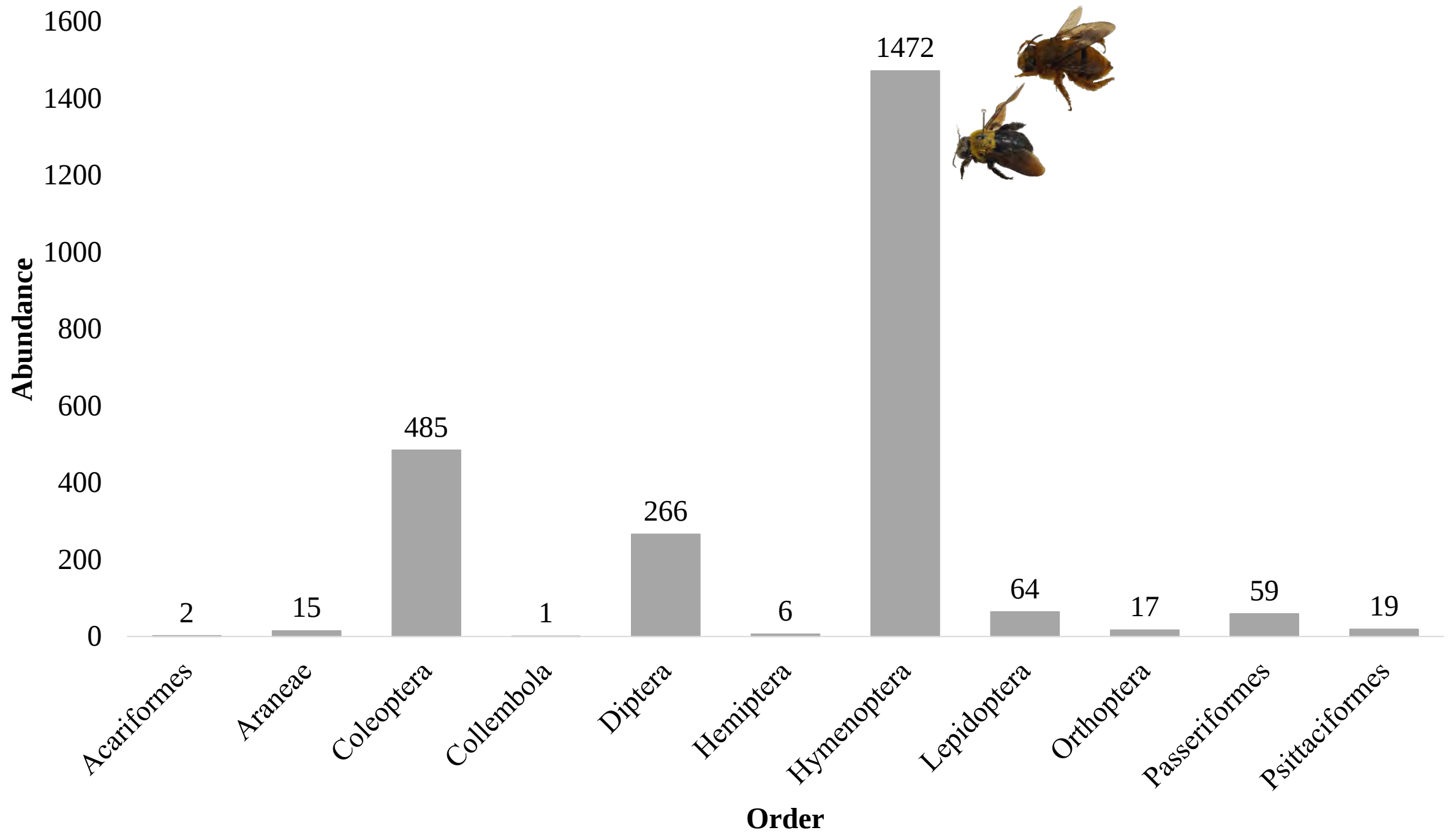
Lantana

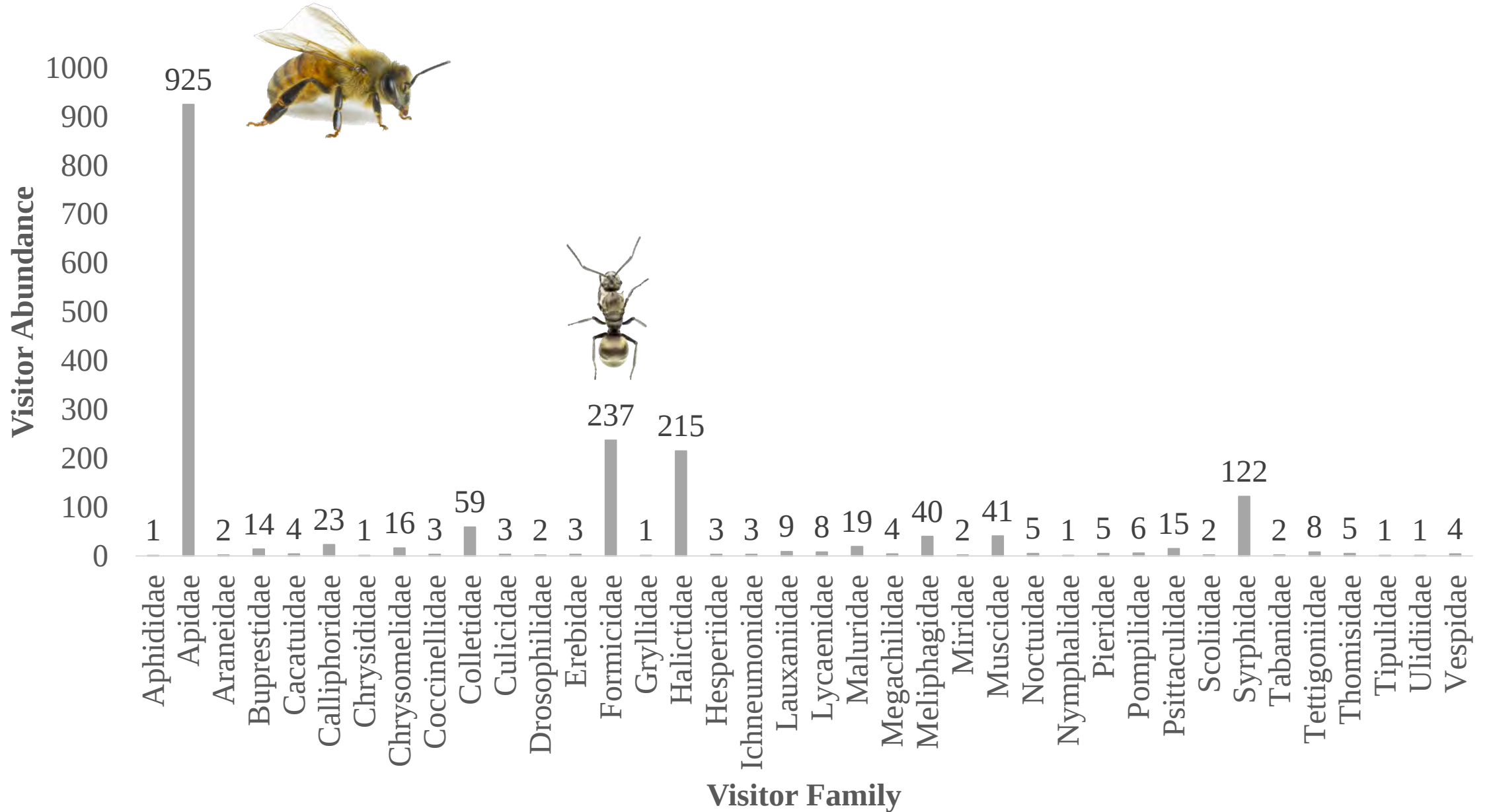


Zombie pea

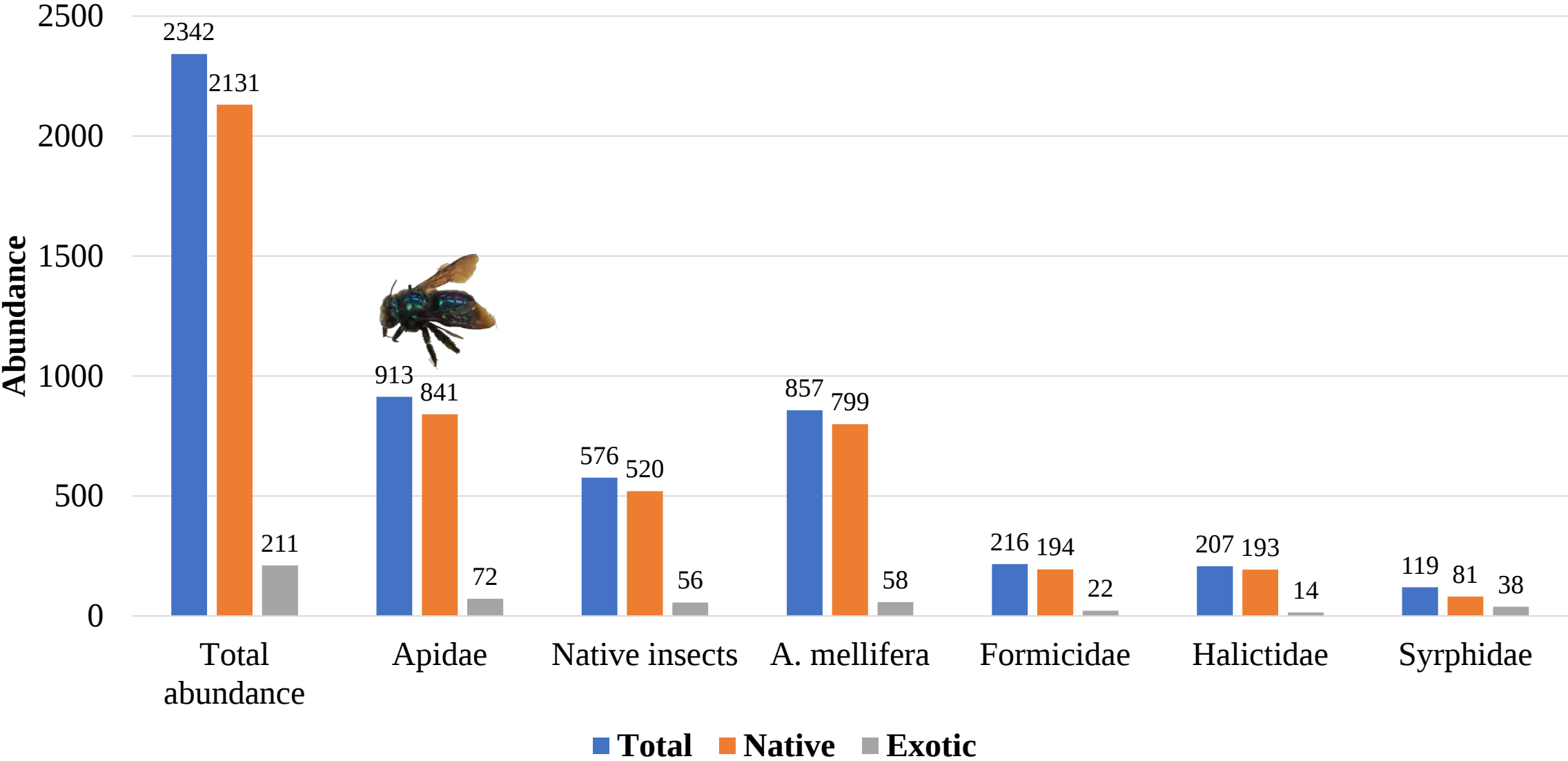


Persoonia

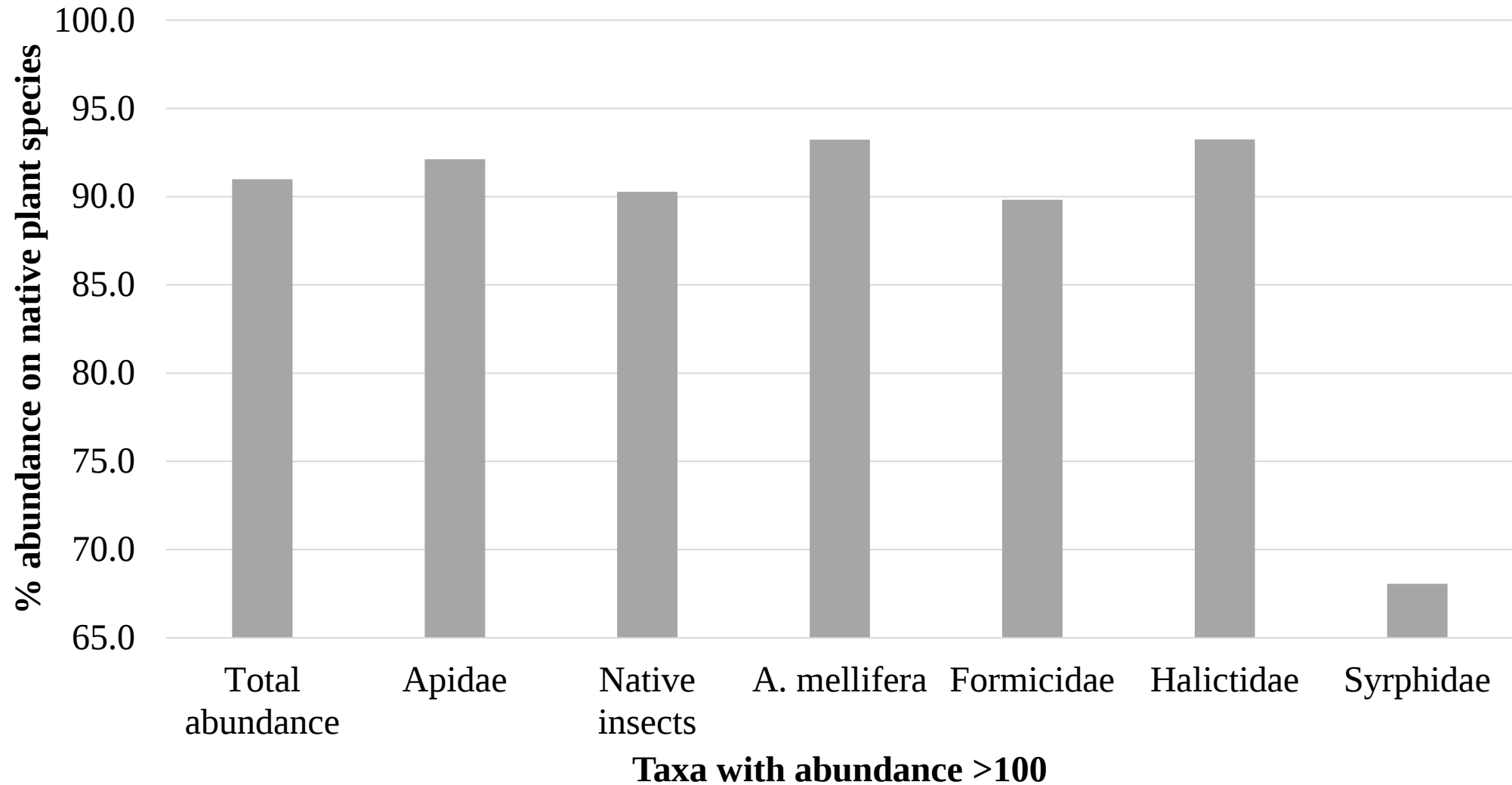


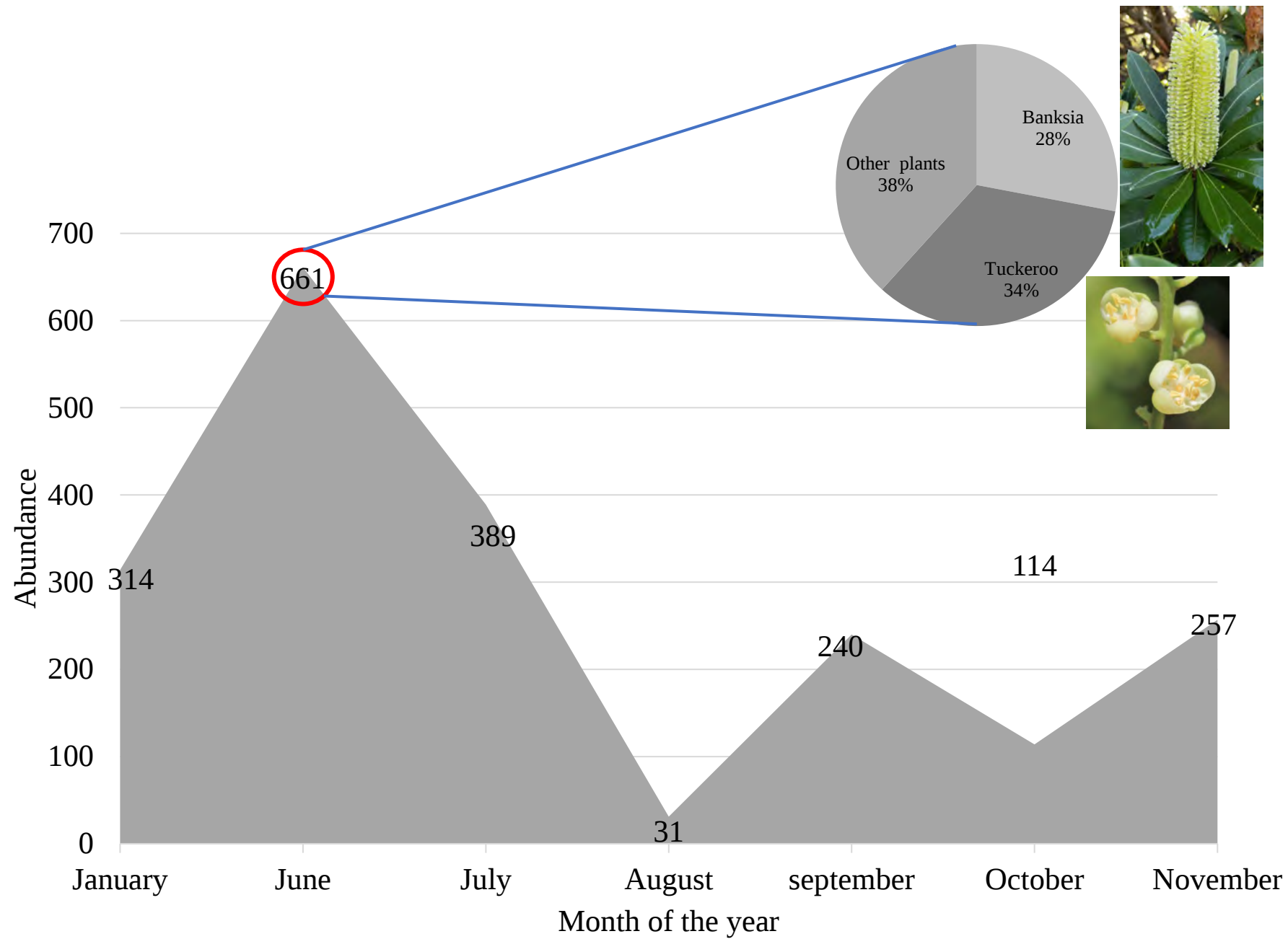


Taxa with abundance >100

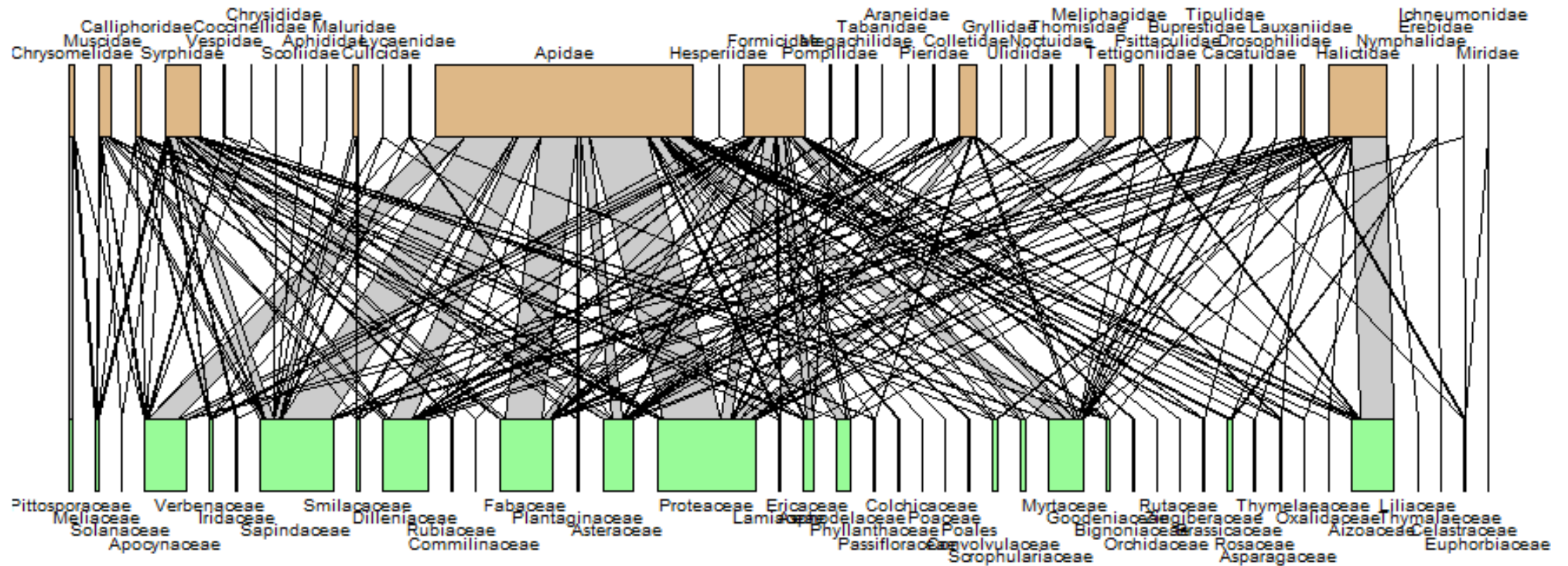


>90% visit on native plant species

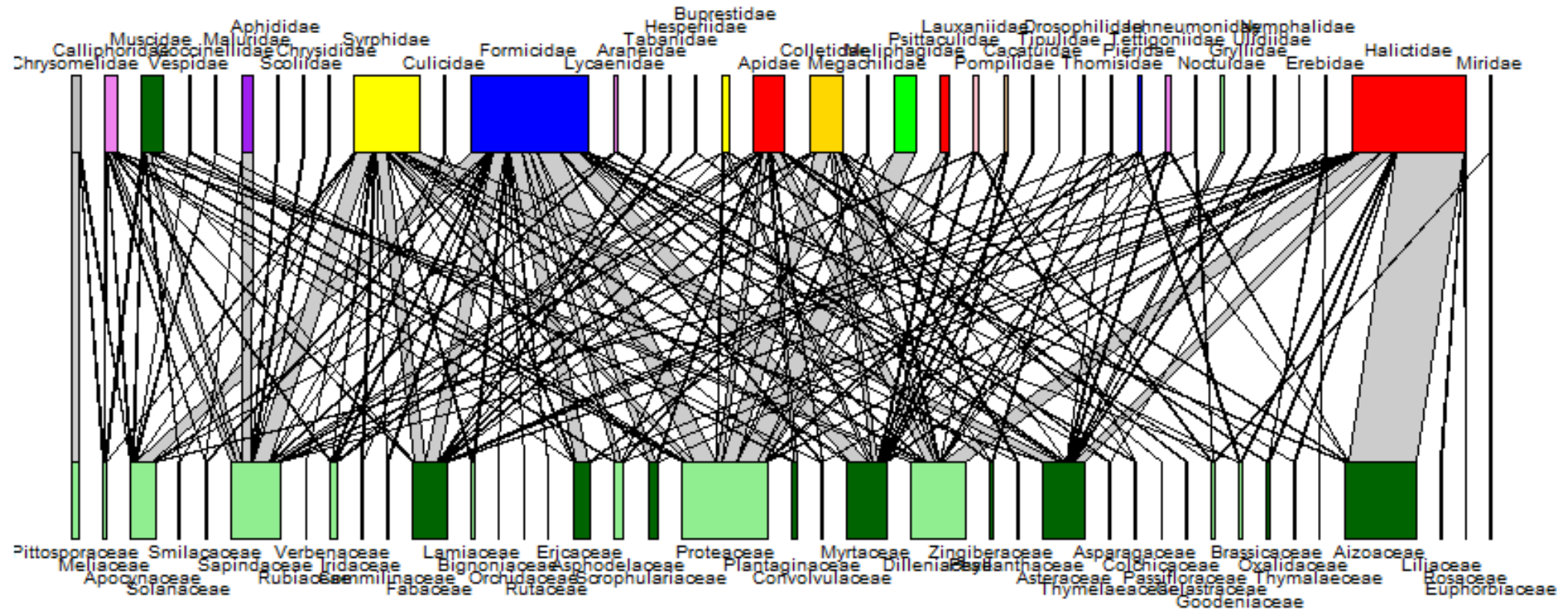


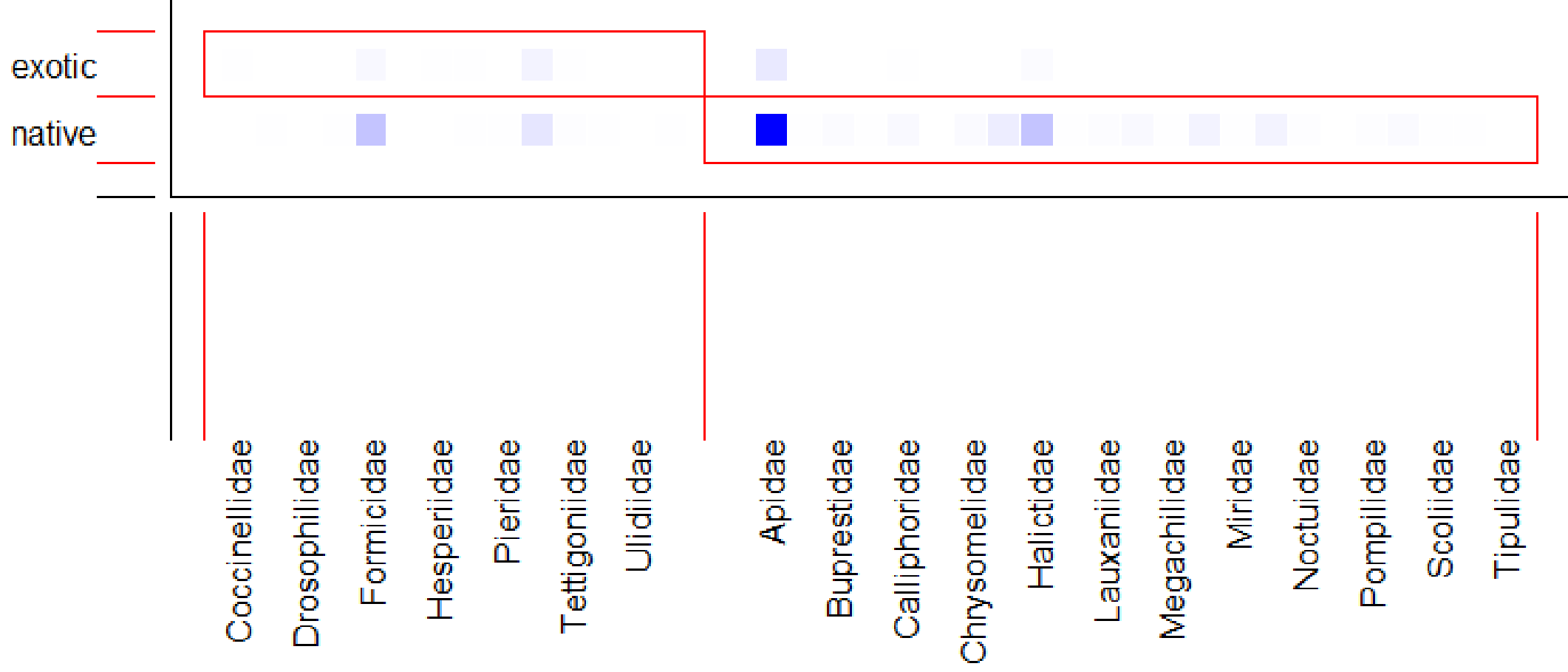


Network with *A. mellifera*



Network without *A. mellifera*





Conclusion

- Plant visitors are higher on native than exotics
 - All visitors: native plants vs. exotic ($p < 0.01$)
 - *A. mellifera* on native and exotic ($p < 0.01$)
 - Native bees on native and exotic ($p < 0.01$)
- Month of June has the highest abundance influenced by blooming of Tuckeroo and *Banksia* spp (62% abundance)

Conclusion

- In the presence of *A. mellifera* and exotic plants, the topology of the network changes from specialized to a network with a generalised pattern of connections (low H2).
- We are in the process of interpreting these metrics to better inform conservation and management of remnant vegetation and pollinator species in the greater Coffs Harbour region.