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**Submitted Date 15/02/2022**

## Brennan Rd Nature Reserve

### Feral Bee Survey 2022



## Survey of Feral Beehives.

This reserve is broken up into four zones to assist in identification of feral bee activity.

### Zone 1

Only three hives was found in this area. One was an old hive with dried out honeycomb visible at the entrance, looking up from the ground. One or two bees were entering and leaving so it appears they may be robber bees and not a full-blown hive taking up residence. Until powder is puffed in this hollow then it is not known for sure how many bees are there.

The second is a new hive. This one appears small and not well established. As typical, the hollow appears to be suitable for the parrot family. The entrance is probably 70mm. It is too high for ladder access.

Due west an old hive in a hollow branch has fallen down, probably due to high winds. There were bees hanging around, but I think they were after the newly exposed honeycomb which normally would have been hidden deep inside the hollow. The branch was on the ground, so it was easy to observe. Where it broke off at the tree, there were no bees so I assumed the hollow stopped there.

The previous fire has certainly decimated many trees. With many cavities snaking up through the trunk a powerful fire would roar up and into the hollows. It appears many animals would have lost valuable homes.

To the centre and South-west of Zone 1 are small areas of trees. According to the aerial map it could have large enough trees with hollows. These were carefully checked out, but nothing was found.





**Figure 1: Hollow branch broken off with bees**



**Figure 2: One or two bees inspecting hollow**

## Zone 2

No new beehives were found but, unfortunately, all five bee hives that were old, had re-infestations although it appears the bee population is small. This cannot be confirmed until they are treated, and a conclusion is reached after watching how many bees exit. This is a blow to the local animals as some were large enough for parrots. Two were sub-terranean in Xmas trees. Normally these trees can establish large cavities at their bases when they are old But, these trees had smaller hollows. This is due to the younger age of them.

To the east of zone 2 are many trees with suitable hollows for large and small animals. It's this area where the bees are interested in. To the south is farmland and it would be true to conclude that this is where they are obtaining their water from. Also having a previously wet winter the vegetation is in a strong flowering stage thus providing huge sources of food for the bees. So, it's not surprising they have bounced back.

In the south-west section no bees were found nor old re-infestations.



**Figure 3: Bees at base of Xmas tree**

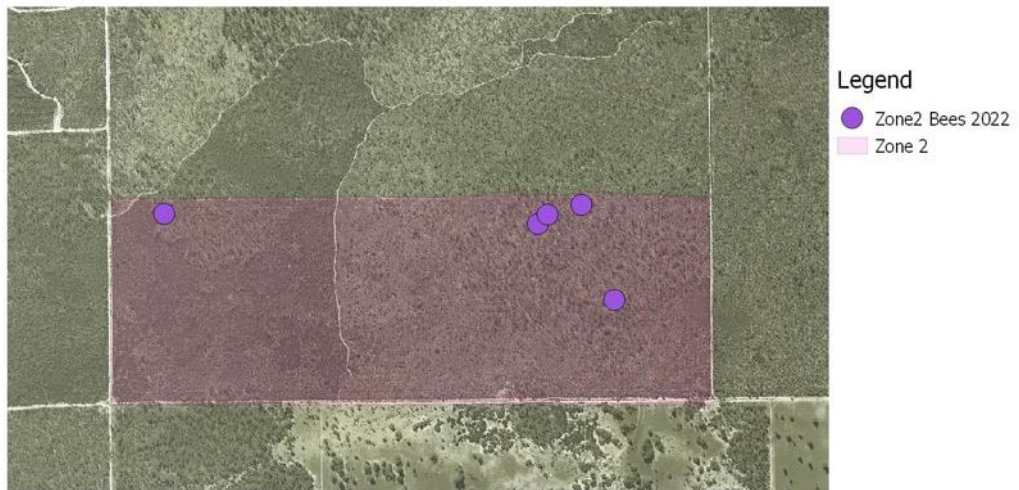


**Figure 4: Bees persisting in top hollow**



**Figure 5: Hollow still bee-free**

### Zone 2 Bees



Zone 3

No bees were found in area. Again, the trees aren't old enough to develop hollows. Burnt hollows were found on the ground.

**Brennan rd Res**  
Zone 3



Legend  
Zone 3

#### Zone 4

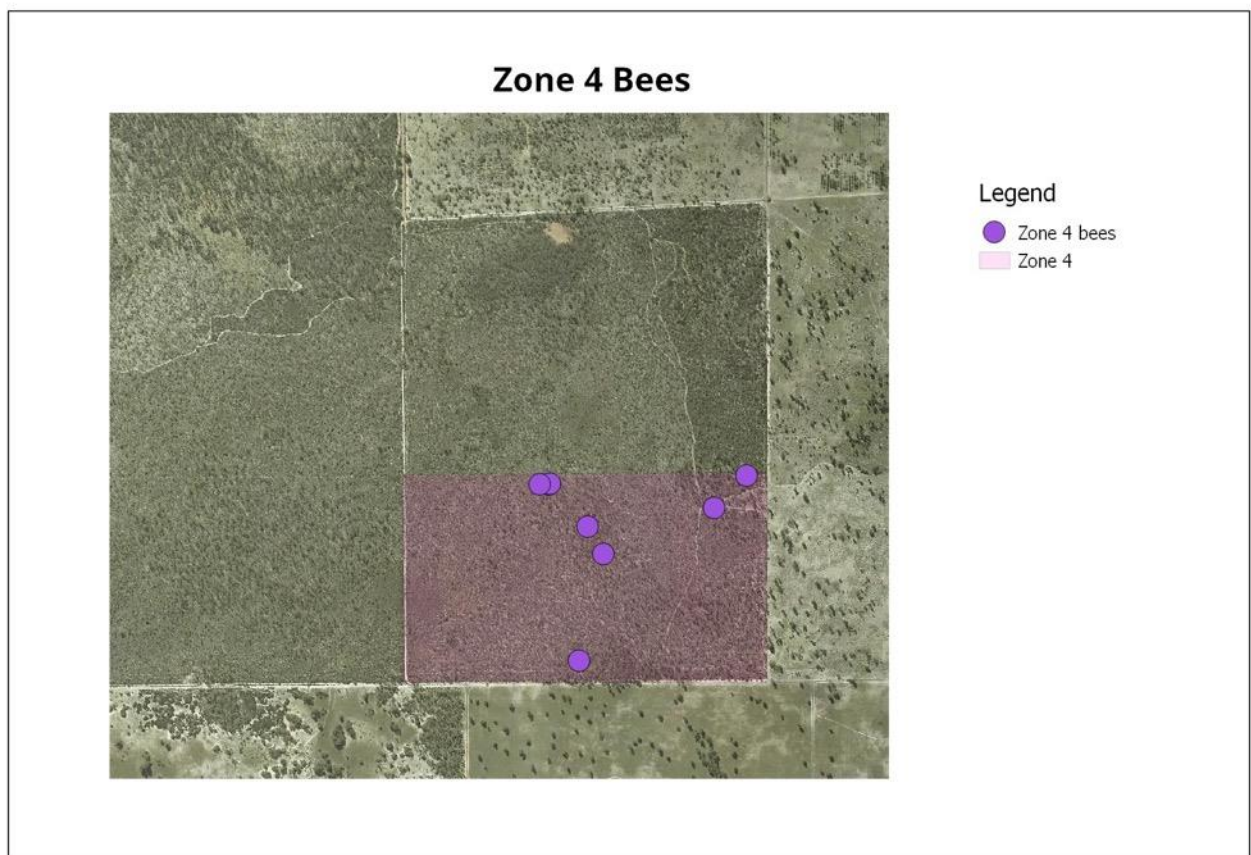
The largest two trees in entire reserve are in this zone. Last year an owl was flushed from one of these trees. It was in a deep hollow. This year the bees decided to move in. In fact, both trees had new infestations of bees. It's sad because it would be a fair assumption that the owl would have bred given half the chance.

To the east of these is another large tree with what appears to be a large hollow. This also was clear last year but suffered with bee intrusions this year. The honeycomb at the entrance appears fresh.

By sheer luck there are more large trees with deep hollows that are bee free at this stage. The bees tend to go to the smell of honeycomb thus move into old hives first before swarming and expanding to new trees. The idea is to stop them from expanding.

With farmland to the south and east there are dams that provide plenty of fresh water so it's no wonder the bee activity is high.

None of the trees that have bees in them can be scaled. They are a minimum of 9 metres, and some appear unstable. By constantly bombarding them with powder is the only way to remove them.





**Figure 6: Bees reinfested large hollow**

#### Summary

- For 2022 a total of sixteen hives were found.
- Of the sixteen, fourteen were re-infestations.
- Sound was used to search for the bees. Listening to their swarming can help locate hives.
- Scout bees were still persistent in looking for new hive locations.
- Having a strong winter with higher rainfalls produced a strong food source for the bees.