FERAL FAUNA

DEVELOPMENT OF A FERAL BEE CONTROL STRATEGY FOR WESTERN AUSTRALIA

Jennifer Jackson

When we think of feral animals, we often think of the more conspicuous ones, such as foxes, rabbits and cats, but another well known exotic animal is having a negative impact on our environment in Australia. European honey bees (*Apis mellifera*) were introduced to Australia soon after European settlement in the 1820s. They were introduced for honey production, and to help pollinate plants and crops. However, since that time the managed bees have been swarming from their parent hives to form feral bee colonies. Although they are the same species, feral bees differ from managed bees. Feral bees are generally aggressive, have a tendency to swarm and they are of little value for commercial honey production.

Here in WA, feral bees are taking over hollows in trees at an alarming rate, and in the process evicting native birds and mammals that use those hollows for shelter or nests. Of particular concern is that the bees take over the nest hollows of our three iconic and threatened species of black cockatoo, the forest red-tailed black cockatoo (*Calyptorhynchus banksii naso*), Carnaby's black cockatoo (*Calyptorhynchus latirostris*) and Baudin's black cockatoo (*Calyptorhynchus baudinii*).

Current forms of bee control are considered costly and time consuming because eradication is usually done on a hive by hive basis. However, recent research carried out in New Zealand has found an effective way to control bees, making the bees come to us, instead of us going to them. By presenting a small amount of pesticide with a sugar solution in a specially designed bait station, feral bees within a 500m radius can be attracted to the bait stations quickly and in large numbers. The bees consume the bait and return to the hive, and because the pesticide kills bees by ingestion and contact, if only 11% of the bees in a nucleus colony consume the bait, the entire colony dies.

With financial support from the Water Corporation, CALM will undertake research in the south west of the State to determine if the methodology used in the New Zealand study can effectively be utilised to control feral bees in Western Australia.

The research will investigate:

- the most effective method to attract bees to the bait;
- any risks posed to non-target native species (vertebrate or invertebrate) through proposed control methods, and eliminate or mitigate those risks to an acceptable level;
- the distances travelled by feral bees to a bait station, and the density of bait stations needed to treat a specific area;
- how long it will take to kill feral bee hives in a specific area; and
- how often hives or areas will need to be treated to keep them free from feral bees.

From the research undertaken by CALM, a Feral Bee Control Strategy suitable for Western Australian conditions will be developed, with the aim of reducing feral bee numbers in areas where they negatively impact on our native flora and fauna, without affecting the beekeeping industry.

In the meantime, **if you have feral bees on your property, we would like to know**. Our aim is to develop a database of the positions of known feral bee colonies throughout Western Australia. A GPS co-ordinate would be great; however details of your property location would suffice. Please contact me on 93340175, or email jenniferj@calm.wa.gov.au

Jennifer Jackson is Feral Bee Project Officer at CALM, Kensington.

House Mice eat Skinks!

In the July issue of Western Wildlife, Peter Mawson urged landholders in broadacre farming areas to install perches in crop paddocks to encourage owls to help control house mice. Hopefully lots of people have taken this up, it is such a simple thing to do!

Well, there is evidence that house mice are omnivorous – they don't just eat grain, they will eat animals too, including small skinks. A study in New Zealand showed that skink numbers recovered after house mice were removed.

House mice move out of paddocks into bushland when cover and food in the paddock becomes scarce. They could therefore be causing decline in the local skink population, both by competing for food and by eating the skinks themselves or, perhaps more likely, their eggs and young. Another good reason to get rid of house mice!

(Ps: If anyone has installed an owl perch, could you please send a photo? – Ed.)