

## **AM with Chris Uhlmann**

Monday to Saturday from 8:00 am on ABC [Local Radio](#) and 7:10 am on [Radio National](#).

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# Queensland bees in kamikaze death match for hive supremacy

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Anna Vidot reported this story on [Saturday, October 18, 2014 08:25:33](#)

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ELIZABETH JACKSON: 'Game of Thrones' fans are familiar with the adage "you win, or you die".

Now Queensland researchers have discovered similar behaviour playing out in the backyards of Brisbane, only this time with bees.

Anna Vidot reports.

(Excerpt of 'Game of Thrones' theme)

ANNA VIDOT: It's warfare as brutal as anything you've seen on TV.

(Excerpt of 'Game of Thrones' dialogue)

TYRION LANNISTER: How long does it go on?

CERSEI LANNISTER: Until we've dealt with all of our enemies.

ANNA VIDOT: For years, running battles between two native species of tiny stingerless bees have been piling up thousands of casualties right under the noses of people in suburban Brisbane who keep them as pets.

It's only now scientists have been able to reveal what happens when swarms of sugarbag bees go to war.

Doctor Paul Cunningham from the Queensland University of Technology is the lead author on the research published today.

PAUL CUNNINGHAM: The first thing we found, which was a real surprise to us, was that this was two species of bee that were attacking each other. This was the first time we've reported inter-species warfare in bees. So it was kind of very exciting from that perspective.

ANNA VIDOT: Over the course of months, the researchers watched as a hobby hive went on a war footing.

PAUL CUNNINGHAM: The bees defending form a big cloud and then the attacking bees just fly in there and they take each other out one by one. So, because these little bees don't have a sting, the only way of taking another bee out is with their strong jaws, their mandibles. They grab each other in mid-air and fall to the ground in this death grip, and then they both die - both the attacker and the defender die. So it's just a numbers game of breaking each other down. So we saw this in the first fight.

ANNA VIDOT: The attackers backed off, regrouped, and returned about a month later with devastating results.

PAUL CUNNINGHAM: This time they broke through and the workers got into the hive and they started dragging the young adults, the young, callow adults, dragging them out of the hive and just discarding them.

ANNA VIDOT: When the third attacking wave came, it was simply too much for the besieged hive to withstand.

PAUL CUNNINGHAM: It was just carnage. The attacking colony just swarmed, throwing out lots and lots and lots of the young adults out of the hive.

There wasn't any more fights after five months so we opened up the hive to look at the genetics of the brood, the developing brood and we found out not only was it the attacking species that had got in there, but they had managed to escort a daughter queen into the hive to rule.

And before anyone gets too worried about these poor little defending *Tetragonula Carbonaria* being wiped out, we actually studied over 250 hives. We found that there were changes going on in both directions, so they don't always lose.

ANNA VIDOT: Doctor Cunningham says all that carnage really does seem to be about securing the best real estate, but this research has raised many questions his team is keen to explore further.

PAUL CUNNINGHAM: How these wars come about, what instigates the battle, how the new queen is escorted to the hive. There's many, many questions still to ask.

('Game of Thrones' theme to end)

If it is a Game of Thrones, I do hope we're going to get funding for a second series.

ELIZABETH JACKSON: Anna Vidot with that report.

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